



**Mid West Development Commission**  
Government of Western Australia

Ms Karen Tilsed  
A/Manager Projects  
Electricity Access  
Economic Regulation Authority  
PO Box 8469  
PERTH WA 6849

Dear Ms Tilsed

### **WESTERN POWER'S 330KV MID WEST AUGMENTATION**

The Mid West Development Commission, on behalf of the Mid West Strategic Infrastructure Group (MWSIG), is pleased to provide the attached submission on the above.

The MWSIG aims to support major project development by facilitating the timely development of strategic infrastructure. Comprising key stakeholders from within and beyond the Mid West region, the Group considers it essential that a dual circuit 330kV line from Pinjar through to Moonyoonooka is completed by 2010 – in line with the timeframes of many proposed major project developments. The construction of this strategic infrastructure is regarded as fundamentally important to the future development of the rapidly expanding Mid West economy.

I trust our submission is constructive and I look forward to the ERA's favourable response to Western Power's proposal.

Should further clarification of information be required, please contact either myself on 9921 0701 or Michael Osborn on 9921 0713.

Yours sincerely

**STEVE DOUGLAS**  
**CHIEF EXECUTIVE OFFICER**

21 November 2007

Submission on:

Issues Paper

Economic Regulation Authority

Western Power 330kV Mid West Augmentation

By

Mid West Development Commission

on behalf of the

Mid West Strategic Infrastructure Group

PO Box 238

Geraldton

6531

## **About the Respondents**

The **Mid West Development Commission** is a statutory authority which aims to promote the social and economic development of Western Australia's Mid West. Its operations are overseen by a regionally based Board and it reports directly to the Minister for the Midwest and Wheatbelt, the Hon K M Chance. Its offices are located in Geraldton.

With the support of the Department for Planning and Infrastructure, the **Mid West Strategic Infrastructure Group** was established as a Working Group of MWDC in mid 2005. Its key aim is to facilitate the timely development of the region's strategic infrastructure to support major project development. The MWSIG meets bi-monthly and plays a key role in planning and coordination for major projects within the Mid West.

MWSIG members include:

- MWDC – Chair and Executive Officer support
- Department for Planning and Infrastructure
- Department of Industry and Resources
- Landcorp
- Oakajee Project Team
- Main Roads WA
- Geraldton Port Authority
- Western Power
- Shire of Chapman Valley
- City of Geraldton - Greenough
- Batavia Coast Regional Council
- Murchison Zone of WALGA
- Mid West Regional Council
- Mid West Chamber of Commerce and Industry
- Chamber of Minerals and Energy WA
- Westnet Rail

## **Introduction**

The Mid West region of Western Australia is going through a period of unprecedented economic growth and expansion. This is illustrated in the attached Mid West Major Projects Update.

This economic expansion is mostly being fuelled by a rapid growth in the mining industry which is buoyed by a worldwide surge in demand for commodities. The Mid West is fortunate to be endowed with vast reserves of mineral deposits including iron ore (hematite and magnetite), gold, copper, gypsum, potash, talc, coal, attapulgitite, garnet, quicklime, oil and gas, lead, zinc, mineral sands, nickel and vanadium.

Some of these minerals can be profitably exported in their natural state without processing. Others like magnetite require energy intensive beneficiation such as crushing and concentration before shipping to export markets. Some projects plan to build a pipeline and transport the magnetite in a slurry to port requiring additional power. Large scale processing is required for most of the proposed value adding mining projects which means there will be a huge increase in the demand for power.

Currently the load for the upper Muecha grid (the Mid West region) is 140 MW which is near the system capacity of 155 MW. This is insufficient to meet the region's future power needs on a business as usual scenario let alone the significant new mining projects being proposed. Indeed, none of the proposed Mid West magnetite mining projects can proceed until the capacity of the grid is significantly upgraded. In addition, the Geraldton Iron Ore Alliance has estimated that Geraldton's population will increase by around 20,000 people within 25 years on the back of its member projects alone, further increasing the need for power and other services.

The proposed development at Oakajee (20 kms north of Geraldton) of a deepwater port and rail link, will also facilitate major industry development at the adjacent Oakajee industrial estate. In the first instance Murchison Metals and Midwest Corporation plan to export hematite through this infrastructure with the latter estimating it will require 40 – 80 MW of power for its operations at Oakajee.

Power supply bottlenecks have the potential to dramatically stifle industrial development, economic expansion and growth in the Mid West by killing or delaying many of the planned major projects or causing them to relocate out of the region or country.

A well planned, strategically coordinated and timely upgrade to the electricity supply is vital for the prosperity of not only the Mid West region but for Western Australia and the nation as a whole. A poorly planned, uncoordinated and piecemeal approach will spell disaster for many potential projects and stifle the economic prosperity of the region.

There are also a number of proposed private power generation projects for the Mid West. Without the necessary transmission capacity augmentation most of these can not proceed.

## Section 1

### **The Future Demand for Electricity in the Mid West**

Neither the Mid West Development Commission (MWDC) nor the Mid West Strategic Infrastructure Group (MWSIG) has the technical expertise to analyse the Parsons Brinckerhoff (PB) appraisal submitted to the Economic Regulation Authority (ERA) and the use of forecasting models such as the Monte Carlo technique to make estimates of future demand for electricity in the Mid West. No doubt this will be addressed in more detail by other stakeholders' submissions.

However we raise the point that the PB appraisal appears to be a desktop study completed without any attempt to evaluate the statistical weightings of block load expectation forecasts by further research or regional consultation. If this has been done, it does not appear to have been included in its appraisal.

In section 3.1 of the appraisal PB writes "*In this technique we simply predicted the future demand based on historical rates of growth*". Using the past rates of demand growth to predict future growth rates is only statistically valid if the demand growth is historically stable or there has been or will be no major structural changes to the economy. This section of the report is flawed and should be disregarded because the Mid West is now developing into a major mining and minerals province and export region and experiencing an unprecedented economic boom with growth rates in excess of 6 %.

The recently released State Government Strategic Review into the Mid West's banded iron formations has identified 70 to 85% of the iron deposits as suitable for mining which now opens the region up for even more development. In addition, the State Government recently announced its policy on the provision of key Oakajee port and rail infrastructure, clearing the way for the private sector to move ahead with these developments.

The Mid West Major Projects Update documents the significant number of current and future Mid West projects where hundreds of millions of dollars has already been spent on development. Development agreements have been forged with major international industrial giants like Mitsubishi Corporation of Japan and Sinosteel of China and many of these projects will almost certainly go ahead. This is extremely relevant and crucial when assessing the need for the upgrading of strategic infrastructure such as power supply.

In the normal course of their business, MWDC and members of the MWSIG are in regular contact with most of the Mid West project proponents and have developed a strong working knowledge of their issues, needs and concerns. A major concern raised by one of the Mid West magnetite proponents, Gindalbie Metals, is the absence of any stakeholder consultation undertaken as part of PB's appraisal. That appraisal concludes a 132kV transmission line from Pinjar to Geradlton is the best option and its the installation should be delayed for up to 2 years. Yet the 120MW a 132 kV line would deliver would be totally consumed by Gindalbie's Karara magnetite project coming on stream in 2010.

Should they be adopted, PB's recommendations will represent a major setback for development in the Mid West. By the year 2010 production of magnetite concentrate from different mines, including those of Gindalbie and Asia Iron and is forecast to be between 20 to 25 MTPA (million tones per annum) which will require up to 320MW for processing of the ore.

It is forecast that Gindalbie's Karara project will require 100MW by 2010 and will increase to 200 MW by 2015 and Asia Iron's magnetite project will require 110 MW on full commissioning in 2010 and increase to 200 MW in 2015 or 280 MW if a desalination plant is constructed as well in the Geraldton area by 2015.

These Mid West magnetite projects along with many other mining projects will not proceed without at least a 330 kV augmentation. Indeed, there is a compelling case for a dual circuit 330 kV line because it is 33% cheaper to construct than two single lines and reduces the construction time by 50%, disruption and environmental damage compared with installation of two single lines. It would also facilitate rapid expansion in the Mid West region.

It would take two years to construct a single or dual circuit line. If a single line option is chosen it will take a further two years to construct a second circuit line. This could seriously delay Mid West resources projects and, if the current 'window of opportunity' closes, could see the Mid West, the State and the Nation miss out altogether on securing several major mineral projects and the attendant investment.

Gindalbie Metals announced on 14 November, 2007 that it had signed a long term power supply contract with Verve Energy for 100 MW for its Karara project. MWDC is advised that without a 330kV augmentation, Verve Energy would be unable to fulfill this contract. There is also the potential for national and international political embarrassment if the 330 kV augmentation does not go ahead immediately as Ansteel of China and Gindalbie signed a joint development agreement in the presence of the Chinese President, Hu Jintao and the Australian Prime Minister, John Howard in September 2007. The Chinese President also visited Perth prior to the recent APEC meeting in Sydney where he was assured of State Government support for this project.

MWDC estimates that there are about 15 or more potential renewable energy projects (predominantly wind farms) and 5 or more non renewable energy (coal and gas) projects proposed for the Mid West. As private companies in WA currently cannot enter into the electricity transmission business, these proposed power supply projects are dependent on Western Power's dual circuit 330kV augmentation to progress.

It is important to note that in addition to the numerous iron ore projects proposed for the region, there are three new hematite iron ore projects in operation, namely those of Mt Gibson at Talling Peak, Midwest Corporation at Koolanooka and Murchison Metals at Jack Hills. All these proponents are progressing the development of larger scale Stage 2 projects.

In respect to risk, it should also be noted that it is largely the major economies of Asia that are stimulating demand for commodities with resultant significant commodity price increases. The Chinese in particular are keen to secure long term iron ore supplies and are therefore investing heavily in the development of major iron ore projects in the Mid West. Analysts believe the current growth cycle will remain 'stronger for longer' with the development of the Indian economy likely to further stimulate commodity demand well into the future, underpinning prices and the viability of Mid West projects.





## Section 3

### Proposed electricity generation projects

#### **Aviva Corporation (\$1B) - Proposed**

Aviva is proposing to construct a 400 MW (2 x 200 MW) base load power station adjacent to coal resources at Eneabba to service the emerging iron ore industry in the Mid West. Key aspects in support of the project include:

- significant infrastructure in the immediate vicinity including the Eneabba townsite, the planned 33pKV power distribution line between Pinjar and Geraldton, 2 x gas pipelines, Brand Highway, proven water resource and railway line;
- a proven coal resource of 85 million tonnes;
- the project is located on freehold farming land covered by a mining lease;
- there is no base load power generation north of Perth;
- the split of Western Power and the requirement to reduce its generating capacity from 3480 MW to 3000 MW by 2008; and
- the Mid West has several power intensive resource projects in the pipeline.

#### **Eneabba Gas (\$100M +) – Planned**

Eneabba Gas plans to build a 168 MW power station (Centauri 1) adjacent to coal seams approximately 8 km east of Dongara. All the necessary regulatory approvals for development are in place but due to a delay in the confirmation of take or pay contracts for electricity supply with customers Eneabba Gas has delayed activating its agreement with GE Energy.

Eneabba Gas has entered into a conditional agreement with General Electric International for a 'turnkey project' including the design, procurement, construction and commissioning of a nominal four (4) unit LM 6000 PD gas turbine power generation plant which will produce 100 MW. Primary fuel will be natural gas with the possibility of changing to coal seam methane;

#### **Kalbarri Wind Farm (\$3.8M) – In Progress**

Two wind turbines and a state of the art control system will be built on the southern outskirts of Kalbarri to produce 1.6 MW of electricity. The turbines will increase the quality of the electricity supply and increase the capacity of the local electrical network by about 15%. The project is part of an expanded renewable energy program for WA. Construction has been delayed due to the discovery of a rare species of orchid. As a consequence the location of the turbines was moved 150 metres onto cleared land and installation is expected to be complete by early November 2007.

The MWDC estimates that there are a further 15 or more potential renewable energy projects and 5 or more non renewable energy projects proposed for the Mid West

## **Conclusion**

The Mid West is undergoing a period of rapid and unprecedented growth, fuelled largely by the resources sector and the hunger for commodities from Asian economies, particularly China, Japan, Taiwan and Korea. The emergence of India will further stimulate commodity demand with analysts generally agreeing that the current growth cycle will remain stronger for longer. The desire to secure long term commodity supplies (especially iron ore) has seen major investment from Asian players in Mid West projects.

The timely development of strategic infrastructure is vital in facilitating major resources projects, including the development of a deepwater port and industrial estate at Oakajee linked to resources by a heavy gauge railway. The upgrade of roads and sections of the existing narrow gauge railway are also important, as is the development of Western Power's 330 kV line to increase power capacity and support the development of a number of proposed magnetite projects.

Even on a business as usual scenario, there is a need for additional power capacity in the Mid West as there is a substantial and growing demand for power to support new residential, commercial and industrial land developments. Without a significant upgrade of power supplies, this development will be severely constrained.

***The Mid West Development Commission on behalf of the Mid West Strategic Infrastructure Group therefore strongly supports Western Power's intent to construct a dual circuit 330 kV line from Pinjar to Moonyoonooka by 2010.***



Mid West Development Commission  
Government of Western Australia

# MAJOR PROJECTS SUMMARY MID WEST REGION OF WA NOVEMBER 2007

PREPARED BY

**MID WEST DEVELOPMENT COMMISSION**

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## **Project Status Explanation**

**Proposed** – The project is at conceptual stage

**Planned** – The project has progressed significantly from the conceptual stage but it is **not** committed to proceed

**In Progress** – The project is either committed (funded), at tender or is in construction

**Complete** – The project has reached practical completion

**Note:** In the report projects are listed from most to least certain IE the reverse of the above



# MID WEST MAJOR PROJECTS OVERVIEW

## NOVEMBER 2007

### Multi billion dollar projects

Two proposed projects that will be worth billions of dollars each to the region are the Oakajee deep water port, industrial park and associated rail links (estimated cost \$2.5-3.0 Billion) and the Square Kilometre Array radio telescope project (SKA, estimated cost \$1.8 Billion). **Should they proceed**, they will generate considerable regional and community benefits

**Oakajee** will be essential to service proposed iron ore mining operations in the Mid West. The State Government has outlined its **policy on the development of Oakajee port and rail infrastructure**. Murchison Metals Ltd and Midwest Corporation (or their nominated infrastructure providers) will be asked in early 2008 to submit proposals for the development of the Oakajee deepwater port. The State Government's recently released **Strategic Review** into the Mid West's banded iron formations indicates the State's pre-disposition to the development of long life projects which would underpin Oakajee's development. **The development of Oakajee is now firmly in the private sector's court.**

**NB: MWDC urges those making investment decisions to be fully aware of the situation**

The **SKA** is an international radio-astronomy project for which Australia and South Africa are the shortlisted candidates. A decision is expected in 2012. In the meantime, the shortlisted SKA site in the Murchison is already hosting pre-cursor projects estimated to be in the region of \$150M+.

### Infrastructure

❖ Estimate cost of 15 projects = \$1.5B+ (in addition to the Oakajee project)

Development of infrastructure projects is a major investment field for the region, in large part due to the resources boom. Projects in progress, proposal or planning stages aim to address the following emergent issues:

- ❖ improved transport and carriage infrastructure, such as:
  - Southern Transport Corridor Stage 2, east-west road link;
  - New rail links to proposed port / industrial estate at Oakajee;
  - Upgrades to existing rail networks; and
  - Geraldton port's Berth 5 upgrade for increased iron ore loading capacity.
- ❖ higher power capability to service both the resource industry and supporting industries, such as:
  - a new high capacity 330kV power line from Pinjar to Moonyoonooka; and
  - two new power stations – one 168MW and one 400MW.

### Land developments

○ Estimated cost of 10 projects = \$1B+

A few large, well-progressed estates such as Seacrest (south of Geraldton) and Kalbarri Vision are complemented by a host of others that are in progress or at planning stages including Ocean Heights; Sunset Beach; Glenfield Marina; Double Beach at Cape Burney; and more.

### Government, community and public facilities

○ Estimated cost of 15 projects = \$123M+

One of the largest in progress is the Geraldton Foreshore Redevelopment & CBD Revitalisation Project. Others in progress include the Morawa Health Centre, Marine Services Facility in Geraldton, and numerous school extensions and improvements across the region. At the proposal or planning stage are projects such as a new Lotteries House in Geraldton, Dongara Recreation Centre, Batavia Coast Marina stage 2, Dongara Aged Care Hostel and the Geraldton Convention Centre.

### Tourism

○ Estimate cost of 8 projects = \$120M+

A number of new tourism developments are in progress, planned or proposed for the region, including a high quality tourism resort on the Abrolhos Islands, new hotel / apartments and tavern / apartment developments in Geraldton and caravan parks in Geraldton and Kalbarri.



# MID WEST RESOURCE INDUSTRY SNAPSHOT NOVEMBER 2007

*(Whilst all care has been taken in compiling the information below from best available estimates it is subject to change without notice)*

The Mid West is the most diverse mineral region in WA and probably the most diverse mineral region in Australia. It currently produces: gold, nickel, zinc & copper concentrates, silver, oil & gas, quicklime, attapulgite, garnet, talc, gypsum, mineral sands and iron ore (hematite). Additionally there are projects investigating: lead, potash, coal, coal seam methane, vanadium and iron ore (magnetite).

At any point in the time the Mid West has traditionally supported approximately 20 separate mining operations. Allowing for some mine closures (Eg Wiluna gold mine at the end of July 2007) it is estimated that there will be 28 mining projects (excluding oil & gas) in operation by 2011 in the region.

## **A summary of the regions resource projects, both current and proposed is as follows:**

- ❖ 9 oil and gas projects in operation including: Hovea, Erima, Jingemia, Cliff Head, Xyris, Dongara, Beharra Springs, Tarantula and Yardarino with ongoing exploration and a number of projects being evaluated (see above stories on page 19).
- ❖ 17 mining projects in operation in the region.
- ❖ 2 mining projects from outside the region exporting via Geraldton Port being:
  - Iluka's Gin Gin project in the Wheatbelt Region; and
  - Jabiru Metals Jaguar project in the Goldfields Region.
- ❖ More than 22 mining projects in various stages of evaluation / development in the region.
- ❖ **A number of these are in the early stage of planning and have a long way to go.**
- ❖ 2 mining projects outside the region considering exporting via Geraldton Port being:
  - Iluka's Cataby project in the Wheatbelt Region; and
  - Gunson Resources Coburn project in the Gascoyne Region
- ❖ 1 mining project from interstate (Iluka Jacinth-Ambrosia prospect in the Eucla Basin) evaluating processing mineral sands at Iluka's plant, at Narngulu (Geraldton).
- ❖ 6 mining projects considering exporting via the proposed port at Oakajee being:
  - Murchison Metals Jack Hills Stage 2;
  - Midwest Corporation Weld Range, Jack Hills and Koolanooka magnetite;
  - Golden West Resources Wiluna West Stage 2; and
  - Gindalbie Metals Mt Karara magnetite.
- ❖ A move from shorter term projects (eg gold) to longer term projects (eg iron ore).
- ❖ 10 of the proposed mining projects have a projected life of around 20 years.
- ❖ This reflects a move from low tonnage to high tonnage projects that require significant investment in infrastructure.
- ❖ Estimated collective capital of more than \$6 billion.
- ❖ Estimated construction employment of between 4,000 & 6,000.
- ❖ Estimated on going employment of between 2,000 & 3,000.
- ❖ These numbers are direct employment only.
- ❖ No allowance made for the multiplier effect.
- ❖ An extensive range of projects conducting exploration programs.

# INFRASTRUCTURE PROJECTS

## ROAD

### **Southern Transport Corridor Stage 2 (\$60M) – Planned**

Following completion of Stage 1 in late 2005 at a cost of \$88M, Stage 2 will involve the construction of approximately 9.5 km of new roads from Stage 1 of the corridor just east of the Waverley Street bridge following the new rail alignment to the Narngulu Industrial Estate and then proceeding eastwards to the Geraldton Mt Magnet Road (east west link) near the airport. This will provide improved separation of light and heavy vehicles. The main contract is estimated to take approximately 18 months to complete, with an anticipated commencement date of mid 2008, subject to state budget approvals. Funding has now been proposed to be allocated over 4 years.

[www.mainroads.wa.gov.au](http://www.mainroads.wa.gov.au)

## RAIL

There are a number of rail projects proposed for the Mid West at the moment. These include competing proposals for the Murchison rail link from Jack Hills, Weld Range and Wiluna West to Oakajee from:

- ❖ Murchison Metals ([www.mml.net.au](http://www.mml.net.au))
- ❖ Yilgarn Infrastructure ([www.yil.com.au](http://www.yil.com.au)) and
- ❖ WestNet Rail ([www.wnr.com.au](http://www.wnr.com.au))

In October this year Planning and Infrastructure Minister Alannah MacTiernan announced that “WestNet Rail will be given the opportunity to develop a link into Oakajee thereby ensuring a connection between Oakajee and Geraldton ports and with all the rail in the region.” The State Government will identify a corridor for the rail line connecting Jack Hills and Weld Range mines to Mullewa. The WestNet rail proposal also includes significant upgrades and expansion of the existing Geraldton, Mullewa, Morawa rail line and a link from Narngulu to Oakajee.

## PORT

### **Geraldton Port Berth 5 Upgrade (\$47M) - In Progress**

The port of Geraldton has undergone a number of changes in recent years to accommodate the increasing iron ore trade within the region including deepening of the harbour in 2002/03 and the purchase of a new portable shiploader in 2005. Berth 5 is currently being redeveloped as a dedicated iron ore berth. Construction is well advanced with the berth expected to be operational by the end of 2007.

The project includes:

- ❖ a new shiploader with a design capacity of 5,000 tonnes per hour, which has arrived and is being dry commissioned and expected to be commercially operational by December 2007.
- ❖ new interlinking conveyers for berths 4 & 5; and
- ❖ associated electrical upgrades and marine works.

[www.gpa.wa.gov.au](http://www.gpa.wa.gov.au)

### **Oakajee Deep Water Port, Industrial Estate and Murchison Rail (Estimated to be around \$ \$2.5-3.0 BN dependant on final concepts) – Planned**

Oakajee is located approximately 20 km north of Geraldton and is roughly bordered by the Buller River to the south, Coronation Beach road to the north and the Moresby Ranges to the east.

- ❖ The estate comprises approximately 6,500 hectares of land owned by the WA State Government of which 1,100 hectares is zoned for heavy industrial and 200 hectares is zoned for support industries.
- ❖ The property is currently farmed and awaits servicing (power, water gas etc);
- ❖ Oakajee has been identified for approximately 30 years as a potential site for a deep water port and Industrial estate.

- ❖ Successive studies have confirmed this and the adjacent land has been acquired by the State Government as part of its long term strategic planning process.
- ❖ Most planning and environmental approvals are in place.
- ❖ In October 2006 the WA State Government appointed an Oakajee Project Director
- ❖ LandCorp (WA State Government's development arm) has commenced development of a structure plan for the industrial estate.
- ❖ The rail alignment from Oakajee to Jack Hills and Weld Range is being developed.
- ❖ Refer to rail stories (page 5) and the Resource Industry Snapshot (page 4) for more information on Oakajee.
- ❖ Oakajee port will be an outer harbour of, and managed by the Geraldton Port Authority.
- ❖ **Oakajee port and rail infrastructure will be privately funded, so the private sector will determine whether it proceeds or not.**

## POWER

### **Dongara Power Line (\$4.3M) - Completed**

Work on a new 55 km three phase feeder line from Narngulu to Dongara to reduce power spikes and outages was announced on March 8<sup>th</sup> 2007. Construction has recently been completed and delivers a more reliable and improved power supply to more than 2,000 properties in the area.

[www.westernpower.com.au](http://www.westernpower.com.au)

### **Kalbarri Wind Farm (\$3.8M) – In Progress**

Two wind turbines and a state of the art control system will be built on the southern outskirts of Kalbarri to produce 1.6 MW of electricity. The turbines will increase the quality of the electricity supply and increase the capacity of the local electrical network by about 15%. The project is part of an expanded renewable energy program for WA. Construction has been delayed due to the discovery of a rare species of orchid. As a consequence the location of the turbines was moved 150 metres onto cleared land and installation is expected to be complete by early November 2007.

[www.verveenergy.com.au](http://www.verveenergy.com.au)

### **Eneabba Gas (\$100M +) – Planned**

Eneabba Gas plans to build a 168 MW power station (Centauri 1) approximately 8 km east of Dongara. All the necessary regulatory approvals for development are in place but due to a delay in the confirmation of take or pay contracts for electricity supply with customers Eneabba Gas has delayed activating its agreement with GE Energy.

- ❖ Eneabba Gas has entered into a conditional agreement with General Electric International for a 'turnkey project' including the design, procurement, construction and commissioning of a nominal four (4) unit LM 6000 PD gas turbine power generation plant.
- ❖ The site of the proposed power station is 250 metres from the APT Parmelia gas pipeline;
- ❖ The site is farming land that has been purchased freehold.
- ❖ Primary fuel will be natural gas with the possibility of changing to coal seam methane;
- ❖ Initial exploration for coal seam methane commenced in late 2006.

[www.eneabbagas.com.au](http://www.eneabbagas.com.au)

### **Pinjar, Eneabba, Geraldton (Moonyoonooka) Transmission Line (\$300M +) – Proposed**

In order to reinforce the electricity network in the rapidly growing Mid West region, Western Power is proposing to construct a 330 000 volt (330kV) transmission line between Pinjar (north of Wanneroo) and a new substation to be constructed at Moonyoonooka (15km east of Geraldton).

The rapid economic development in the Mid West has escalated the need for the transmission line to meet the increasing demand for power and connect the growing number of energy suppliers in the region. The line will also improve reliability of the electricity supply. Electricity demand forecasts for the region indicate the transmission line will be required by the summer of 2010/2011. The project will be undertaken in two stages.

The first is a rebuild of the existing 132kV Pinjar – Eneabba line. This part of the project involves the replacement of an existing 132kV line that currently runs between Pinjar and Eneabba with a 330 kV



line. For almost the entire length of the line, the new line will follow the existing 132kV alignment. Western Power has spoken to landowners about areas where slight adjustments will need to be made.

The second stage involves the construction of a new transmission line between Eneabba substation and a new terminal substation to be constructed in Moonyoonooka. The corridor selection process for this section of the line, which involved a multi-criteria analysis of 16 potential corridor options, commenced in September 2006, with local government representatives, key stakeholders and community members attending a series of consultative workshops.

In early July it was announced that a preferred corridor had been selected (Option 10) – a map is available on the Western Power website. Western Power is currently working with affected landowners to determine the most suitable line route within the 1km-wide corridor. Construction of the project has yet to be approved. The approvals process will involve an assessment by the Economic Regulation Authority and an environmental assessment and approvals.

[www.westernpower.com.au](http://www.westernpower.com.au)

#### **Aviva Corporation (\$1B) - Proposed**

Aviva is proposing to construct a 400 MW (2 x 200 MW) base load power station to service the emerging iron ore industry in the Mid West. Key aspects of the project include:

- ❖ significant infrastructure in the immediate vicinity including the Eneabba townsite, power distribution lines, 2 x gas pipelines, Brand Highway, proven water resource and railway line;
- ❖ a proven coal resource of 85 million tonnes;
- ❖ the project is located on freehold farming land covered by a mining lease;
- ❖ there is no base load power generation north of Perth;
- ❖ the split of Western Power and the requirement to reduce its generating capacity from 3480 MW to 3000 MW by 2008; and
- ❖ the Mid West has several power intensive resource projects in the pipeline.
- ❖ Financial Closure is expected by late 2008 or early 2009

[www.avivacorp.com.au](http://www.avivacorp.com.au)

## **WATER**

#### **Yalgoo Town Water Supply Upgrade – In Progress**

An upgrade to the town water supply encompassing a new bore, collector main, supply main, chlorinator and High Efficiency Reverse Osmosis plant with upgrades to the town water tanks. The plant is installed and Watercorp expects it to be operational by the end of November 2007.

[www.watercorporation.com.au](http://www.watercorporation.com.au)

#### **Northampton Water Improvements (\$12M) – In Progress**

A 44 km pipeline from Geraldton to Northampton is planned to run alongside North West Coastal Highway. It will solve water supply problems for homes and businesses in an area that is under tight water restrictions. Construction commenced in July 2007 with completion expected in early 2008.

[www.watercorporation.com.au](http://www.watercorporation.com.au)

## **WASTEWATER**

#### **Geraldton Infill Sewerage – In Progress**

The infill sewerage program in Geraldton is continuing with additional works planned to commence in Rangeway in early to mid 2008.

[www.watercorporation.com.au](http://www.watercorporation.com.au)

#### **Geraldton (Narngulu) Wastewater Treatment Plant (\$8M) – In Progress**

Construction of a new wastewater treatment plant at the Narngulu Industrial Estate adjacent to the Meru landfill site to meet Geraldton's current and future needs has commenced. Construction of an associated pump station is complete.

[www.watercorporation.com.au](http://www.watercorporation.com.au)

### **Dongara Wastewater Treatment Plant Upgrade (\$1.9M) – In Progress**

Construction is expected to commence soon and is expected to take approximately 12 months. Works proposed to increase the capacity of the plant at Dongara include:

- ❖ a 1.2 million litre a day aerated lagoon system;
- ❖ a disinfection system;
- ❖ a pumping station; and
- ❖ a pressure main to transfer treated wastewater for use at the Dongara golf course.

[www.watercorporation.com.au](http://www.watercorporation.com.au)

## **GOVERNMENT PROJECTS**

### **Geraldton Foreshore Redevelopment and CBD Revitalisation (\$26M) – In Progress**

The City of Geraldton's Foreshore Redevelopment and CBD Revitalisation Project continues; stage 5 and 6 works are currently in progress. The State Government has committed more than \$17M to the project including \$9.98M via the Mid West Development Commission over 6 financial years. Forthcoming works include continuing improvements to underground services and drainage throughout the area; road reconstructions; Foreshore landscaping and installation of lighting, bbq, seating, shelters; installation of Cathedral Avenue Precinct Public Art Icon; proposed Dome Restaurant construction (near Durlacher Street groyne); and CCTV Installation in the CBD.

[www.cgg.wa.gov.au](http://www.cgg.wa.gov.au)

### **Dongara Recreation Centre (\$8M) – Planned**

The recreation centre will include a two-court stadium, gymnasium, 200 seat reception centre, tennis club rooms, new amenities, kitchen and bar. A tender for construction has been awarded and it is anticipated that this will begin shortly, with a proposed completion date in late 2008.

[www.irwin.wa.gov.au](http://www.irwin.wa.gov.au)

### **Dongara Aged Care Hostel (\$15M) – Planned**

The Shire of Irwin has been granted a licence by the Federal Government for the construction of a 55 bed aged care facility in Dongara. It will be built in partnership with the RSL Aged Care Association, who will manage the facility. A marked increase in the estimated cost of the project means further planning is now required to progress to the next stage.

[www.irwin.wa.gov.au](http://www.irwin.wa.gov.au)

### **Batavia Coast Marina, Stage 2 - Proposed**

The Mid West Development Commission is the lead State Government agency for Stages 1 & 2 of this project. Construction of Stage 1 was completed in 2000. Stage 2 commencement was dependant on the removal of the old railway line from the foreshore as this traversed the available land. With the removal of the railway line in late 2005 and positive results from an initial scoping study, the Mid West Development Commission has commissioned LandCorp to undertake a feasibility study for Stage 2. The feasibility study is expected in the December quarter of 2007.

[www.mwdc.wa.gov.au](http://www.mwdc.wa.gov.au)

### **Geraldton convention centre (\$12M+) - Proposed**

The final report of a feasibility study into the building of a convention centre in the city has just been released. The report identifies a clear need for such a facility and recommends locating it in the forecourt of the existing Queen's Park Theatre; the building of a 200 seat venue is proposed, with removable seating so it could become an extended foyer area if required. Stage two of the proposal will begin shortly, involving preparation of drawings and setting out technical requirements.

[www.cgg.wa.gov.au](http://www.cgg.wa.gov.au)



# HEALTH & EDUCATION PROJECTS

## HEALTH

### **Community Supported Residential Units (\$2M) – Complete**

The construction of new self-contained community-based accommodation units sited on the edge of the Geraldton Health Campus is complete and the tender for their operation has recently been awarded. The facility will be staffed at all times by trained on-site carers and will provide accommodation for up to 14 people who live with mental illness, helping them to develop independent living skills. It is expected to be opened for its first residents by Christmas 2007.

[www.mmhr.org.au](http://www.mmhr.org.au)

### **Morawa Health Centre (\$10M) – In Progress**

This new facility will service Morawa, Perenjori, Latham and surrounding communities. Facilities will include a 24 hour emergency department, aged care accommodation for up to 10 residents, day centre for the elderly, therapy services and provision of health promotion programs. Construction commenced in April 2007 and is expected to be complete by mid 2008.

[www.mmhr.org.au](http://www.mmhr.org.au)

### **Geraldton Medical Group (\$6.5M) – in Progress**

A brand new purpose build health centre is being built in the Geraldton CBD to house the Geraldton Medical Group. The centre will feature fourteen GP consulting rooms, full treatment nursing facilities, on-site pathology, pharmacy and allied professionals. Construction is underway with completion expected by mid 2008.

[www.gmgn.com.au](http://www.gmgn.com.au)

## EDUCATION

### **Kalbarri District High School (\$8M) – Complete**

This school caters for students from kindergarten to year 12. The redevelopment of the temporary facilities with permanent facilities provides the school with specialist classrooms for the secondary school and an administration area. The facilities were officially opened in October 2007.

[www.kalbarridhs.wa.edu.au](http://www.kalbarridhs.wa.edu.au)

### **Wiluna Community School (\$7.2M) – In Progress**

A new school in Wiluna is nearing completion. The school will consist of three primary and one secondary learning areas, a separate pre-primary building and a new library with an adjoining cultural centre. Existing school operations will be relocated to the new building before the start of the 2008 school year.

[www.wilunarcs.wa.edu.au](http://www.wilunarcs.wa.edu.au)

### **Geraldton Secondary College (\$7.88M) – In Progress**

Capital works program includes a new library / cafeteria and landscaping. It is anticipated contracts will go out to tender in November 2007, with completion of construction in spring 2008.

[www.gsc.wa.edu.au](http://www.gsc.wa.edu.au)

### **John Willcock College (\$4.7M) – In Progress**

Construction is well advanced on extensions / upgrades to performing and visual arts, student services and science, and a reading remediation centre. Further areas of the school are being air-conditioned and considerable grounds work will be undertaken. Work should be completed before the start of the 2008 school year.

[www.johnwillcock.wa.edu.au](http://www.johnwillcock.wa.edu.au)

### **Central West TAFE (\$4.4M) – In Progress**

Construction has begun on expansion of facilities in the areas of hospitality, building & construction and metals & automotive to facilitate senior school student access to certificate courses at TAFE. Anticipated completion is early 2008.

[www.centralwest.wa.edu.au](http://www.centralwest.wa.edu.au)

## **SCIENCE & TECHNOLOGY PROJECTS**

### **Murchison Radio-astronomy Observatory (MRO) - In Progress**

The Western Australian State Government and Australian Government are working together to establish the Murchison Radio-astronomy Observatory (MRO) at Boolardy Station in the Mid West Region (it was formerly known as the Radio Astronomy Park). Over the next 5 years the MRO will be the site of globally significant radio astronomy research, some of which is already in progress. It is also Australia's bid site for the international Square Kilometre Array Telescope. Potential opportunities for the Mid West from the MRO and related projects include Indigenous employment, attraction of high tech industries and projects and supply of goods and services, both during construction and ongoing operations.

[www.doir.wa.gov.au](http://www.doir.wa.gov.au)

[www.ska.gov.au](http://www.ska.gov.au)

### **Murchison Widefield Array (MWA) (\$10M+) - Planned**

The Murchison Widefield Array (MWA) is an international collaboration between US, Australian and Indian institutions to build a wide-field, low-frequency array. It will consist of 512 antenna 'tiles' over an area 1.5 km in diameter. Each 'tile' would consist of 16 simple antennas. The project will allow scientists to investigate the early structure of the universe and better predict solar bursts of superheated gas that could play havoc with satellites, communication links and power grids.

[www.haystack.mit.edu](http://www.haystack.mit.edu)

### **Australian Square Kilometre Array Pathfinder (ASKAP) (\$101M) - Planned**

The ASKAP will be one of the world's foremost radio telescopes and an important test bed for SKA technology. The ASKAP project will consist of up to 45 dishes working together as a single telescope – a 1% Pathfinder for the proposed final SKA facility. It will incorporate key infrastructure and operations resources to demonstrate the suitability of Australian sites and technology for the SKA - including a high bandwidth optic-fibre link between Geraldton and the telescope site at Boolardy, and suitable power solutions for the telescope. Early Pathfinder experiments are expected to start in 2007-08, construction of the Pathfinder telescope will take place from 2008 with commissioning of the 1% Pathfinder expected in 2012.

[www.atnf.csiro.au](http://www.atnf.csiro.au)

### **Square Kilometre Array (SKA) Telescope (\$1.8B) - Proposed**

The SKA is the first telescope conceived as a global project and involves 17 countries in construction of the world's biggest radio telescope. It will be 100 times more sensitive than today's best radio telescopes and have a collecting area of one square kilometre. The MRO at Boolardy Station is one of two international sites short listed for the construction of this telescope. The development timeline is as follows:

- ❖ Demonstration & test phases, such as MWA and ASKAP are currently in progress or planned;
- ❖ The final SKA site is expected to be announced in 2012;
- ❖ Construction to commence in 2012; and
- ❖ SKA expected to be fully operational in 2020.

[www.skatelescope.org](http://www.skatelescope.org)

[www.ska.gov.au](http://www.ska.gov.au)

[www.atnf.csiro.au](http://www.atnf.csiro.au)



# COMMERCIAL PROJECTS

## **Heavy Boat Lifter and Marine Services Facility (\$4M) – In Progress**

Geraldton Boat Lifters Limited (GBLL) plans to establish a marine service facility based around a 200 tonne boat lifter at the Geraldton Fishing Boat harbour.

- ❖ The Federal Government has provided funding of approximately \$1M through its *Regional Partnerships* program & the WA State Government has approved funding via the Mid West Development Commission of \$1.5M;
- ❖ Engineering drawings are now complete for the docking bay and hardstand area;
- ❖ Negotiations are in process regarding installation of piles for the docking bay;
- ❖ Tenders are being evaluated for the compacting and surfacing of the hardstand area, and construction of works sheds;
- ❖ Details of the lease have been finalised with Geraldton Port Authority and are awaiting approval;
- ❖ The heavy boat lifter is due to be delivered in December 2007; and
- ❖ It is planned to be operational in the first quarter of 2008.

## **City Centro (Town Towers) - Proposed**

The City of Geraldton has approved a proposal for extensive refurbishment of the building, including conversion of some of the existing office space on upper floors into residential apartments. The new development would retain some retail and office space. Plans are yet to be received and no dates for the changes are available.

# TOURISM PROJECTS

## **Mariner Resort (Approx \$24M) – In Progress**

Construction of this beachfront development in Geraldton commenced in August 2005.

- ❖ Phase 1 consists of 15 permanent accommodation units and is complete.
- ❖ Phase 2 will consist of 105 one and two bedroom holiday apartments, tavern and cafe. Construction of the holiday apartments is due to begin in the first quarter 2008 with an expected completion date in third quarter 2009. Construction of the tavern is also expected to commence in the first quarter of 2008.

[www.hld.com.au](http://www.hld.com.au)

## **Batavia Coast Marina Hotel and Apartments (\$25M) – In Progress**

Plans for a 4½ star, 74 room, 5 storey hotel in the Batavia Coast Marina and 25 luxury waterside residential apartments have been developed. The hotel complex will include conference and meeting room facilities, a swimming pool, gym, bar and restaurant. The apartments will feature state of the art security & appliances, north facing balconies and secure parking. Construction of the apartments is expected to begin in the first quarter of 2008.

## **Edge Resort Kalbarri (\$10M) – In Progress**

Building has commenced on 39 luxury 2 bedroom units on Porter Street in Kalbarri. The resort will feature a conference facility, restaurant, heated pool and gym; in addition every unit will contain a spa bath. Expected completion date is third quarter 2008.

## **Port Kalbarri Flora Resort (\$25M) – In Progress**

A building licence has now been issued for a 5-star resort on the edge of Kalbarri. It will comprise luxury apartments, restaurant, cafes, shopping facilities, art gallery, function centre, gymnasium, spa and health rooms, swimming pool and tennis court. Construction is expected to begin soon with opening planned for summer 2009.

[www.kalbarrivision.com.au](http://www.kalbarrivision.com.au)

#### **Abrolhos Islands Tourism Resort (\$22M) - Planned**

Humfrey Land Developments has been granted the tender to build a 4½ star tourism resort on Long Island at the Abrolhos Islands approximately 60 km west of Geraldton. Accommodation will be for 60 guests and 10 staff. Final environmental approvals are pending and if this is forthcoming, construction of the resort will begin in March 2008.

[www.hld.com.au](http://www.hld.com.au)

#### **Mahomets Caravan Park (\$15M) - Planned**

Plans and approvals for a 60 site caravan park at the back beach in Geraldton have been finalised, with a view to construction beginning in early 2008 after final lease agreements with the Council have been signed off.

[www.hld.com.au](http://www.hld.com.au)

#### **New Kalbarri Caravan Park – Proposed**

A 4.46ha site in central Kalbarri has been identified by the State Government as a future caravan park site for tourist use. Negotiations with the registered native title claimants have to be completed before taking the proposal any further. Then it is expected that expressions of interest will be called, with the site offered for lease to the preferred developer.

#### **Tourism Accommodation Development Register (TADR)**

Tourism WA continuously monitors the level of tourism accommodation development activity occurring throughout Western Australia and reports the results every six months (June and December). Developments in the Mid West are listed against the Coral Coast.

[http://www.tourism.wa.gov.au/policies\\_plans\\_strategies/tourism\\_policy\\_planning/pages/tourism\\_accommodation\\_development\\_register.aspx](http://www.tourism.wa.gov.au/policies_plans_strategies/tourism_policy_planning/pages/tourism_accommodation_development_register.aspx)

## **MISCELLANEOUS PROJECTS**

#### **Natural resource management funding (\$28M) – In Progress**

The Northern Agricultural Catchments Council (NACC) administers funding from the Federal Government's Natural Heritage Trust (NHT) and National Action Plan for Salinity and Water Quality (NAP) funds. NACC's current Investment Plans (2006/08) for use of NHT / NAP funds will release a total of \$28M into natural resource management projects already identified in the Northern Agricultural Region (covering shires from Gingin to Northampton and inland to Chapman Valley and Perenjori). Potential business opportunities include fencing construction, farm planning, drainage ditch construction, catchment management planning and a range of other agricultural or natural resource management planning areas.

[www.nacc.com.au](http://www.nacc.com.au)

#### **New Lotteries House, Geraldton (\$7M+) – Planned**

A new Lotteries House will be built on Sanford St to provide accommodation for groups providing community services, including the Silver Chain, Midwest Family Support Association, Association for the Blind and the Geraldton Resource Centre. A design is being finalised in preparation for going to tender some time in 2008. It is hoped that construction will be complete by mid 2010.

[www.grc.asn.au](http://www.grc.asn.au)

#### **Filming of 'Temper Blood Fury' and "real life" documentary (\$2-3M+) – Planned**

A modern day thriller set and filmed in the Geraldton area – Temper Blood Fury - is in the planning stages. The story has links to the Batavia shipwreck and mutiny. Filming locations in and around Geraldton have already been sourced by production company Red Igloo, and the cast and crew are expected to begin filming in April 2008. A six part "real life" documentary series associated with the making of the film will be made at the same time for television. Both are expected to be released in mid 2009.

[www.red-igloo.com.au](http://www.red-igloo.com.au)

# MAJOR LAND DEVELOPMENTS

## **Seacrest Estate (\$205M) – In Progress**

When complete the development will include 1,260 lots, with space allocated for a public primary school and a private school, public open space, retirement village (see Arcadia Waters story below) parks and gardens and a retail area. Construction of Stages 11 (100 lots) & 12 (104 lots) is nearly complete. Titles for Stage 11 have been issued and titles for stage 12 will be issued during the fourth quarter of 2007. The contract has recently been awarded for the construction of Stage 13. There are approximately another 4 stages to follow.

[www.hld.com.au](http://www.hld.com.au)

## **Kalbarri Vision - (\$225M) – In Progress**

Located 2 km south of Kalbarri, adjacent to Red Bluff, is Kalbarri Vision - a master planned project that spans 1,400 hectares of land. The first stage of this project is the 40ha Eco Flora Estate which will incorporate 254 residential lots, a six star resort, a boutique brewery, corporate retreat, spa resort, recreational areas and commercial precinct. The first houses on the residential lots are complete. Planning consent for the proposed Flora Resort was granted by the Shire of Northampton in November 2006. A Building Licence was issued in September 2007, construction is expected to take 26 months and the planned opening is by summer 2009.

[www.kalbarrivision.com.au](http://www.kalbarrivision.com.au)

## **Sunset Beach Estate – In Progress**

Located 5 minutes north of the Geraldton CBD on the coast the estate will comprise up to 750 blocks. Planned features of the estate will be a beachside café and restaurant, lookout tower and beachside viewing platforms, beach access via boardwalks, public amenities including beach showers, playground and BBQ's, as well as parklands and recreation areas. There will be a maximum 400m, homesite-to-beach distance. Civil works for Stage 2 are underway and are expected to be complete by the end of the year. As part of the 5 year Foreshore Management Plan, rehabilitation has commenced with the construction of beach access paths and fencing to help protect damaged sand dunes.

[www.sunsetbeachwa.com](http://www.sunsetbeachwa.com)

## **Ocean Heights Estate – In Progress**

The concept endorsed by local government will comprise 3,000 lots, 20 hectares of public open space, a 4 hectare foreshore reserve, primary school site and 3 commercial sites. Construction of the first 40 lots is complete. The project website ([www.oceanheights.com.au](http://www.oceanheights.com.au)) will be operational in the near future.

## **Double Beach – In Progress**

This large master planned community development in Cape Burney proposes to have over 8,500 residential home sites, a school, major shopping facilities and public open space areas. Phase 1 construction which involves earthworks for approximately 500 lots, south of Greenough River Road, is nearing completion. Construction of Stage 1, which will be comprised of 200 residential home sites is underway and expected to be complete by February 2008. Marketing and selling of Stage 1 is to commence in December 2007.

The project website ([www.doublebeach.com.au](http://www.doublebeach.com.au)) will be operational in the near future.

## **Arcadia Waters Geraldton – In Progress**

The Arcadia Group has commenced construction of a retirement village at Seacrest Estate (see above) in Geraldton. The 131 unit development will promote a resort type lifestyle, including features such as; club house and recreation room, billiards room, library, alfresco dining area, lap pool, parks and gardens, barbecue area and a secure storage area for boats and caravans.

[www.arcadiawaters.com.au](http://www.arcadiawaters.com.au)

### **Arcadia Waters Port Denison – In Progress**

The Arcadia Group plans to build a retirement village at Port Denison. Plans call for 50 - 55 three bedroom units with double garages and spacious gardens and will promote a resort type lifestyle, as for the development in Geraldton described above. The design is progressing and planning commission approvals are being sought. Construction of the first six units is expected to be complete by December 2007.

[www.arcadiawaters.com.au](http://www.arcadiawaters.com.au)

### **St Patrick's College – (\$6M) Planned**

Plans are in progress to redevelop the 8ha old Saint Patrick's College site in Geraldton. The long term project is currently proposed to be developed in five stages. Stage one will be a residential precinct consisting of 28 lots ranging in size from 200 to 600 square metres. Rezoning for residential use and subdivision plans for this stage has already been approved by the City of Geraldton-Greenough. Construction is expected to commence in March 2008. Stage 2 will be a mix of commercial and residential properties, with uses for the remaining three stages yet to be determined. Rezoning for Stage 2 has been endorsed by council and is now before the WA Planning Commission. The old school building will be preserved under heritage guidelines.

[www.kalazichsmith.com.au](http://www.kalazichsmith.com.au)

### **Glenfield Marina and Canal Estate (\$35M) - Proposed**

Recent plans approved by local government call for a marina development in Glenfield adjacent to the Ocean Heights Estate. The plans call for between 100 and 120 pens, homes with their own moorings and an apartment block overlooking the marina with restaurants, shops and other public facilities on the ground floor. Environmental approval for this concept is targeted for 2009.

### **Seaview Farm Subdivision Horrocks – Proposed**

The owners of Seaview Farm in Horrocks have announced plans to develop an 800-lot residential subdivision. A structural plan has been submitted and this will be considered by Northampton Shire council after feedback is received from the Department for Planning and Infrastructure.

## **MAJOR CONFERENCES**

### **Mid West Economic Summit 2007 'No Limits' – November 8<sup>th</sup> 2007**

The Economic Summit provides an opportunity for the business community, developers and potential investors to gather information about economic development in the Mid West region of Western Australia. The one day summit will feature Andrew Horabin as facilitator of the program, and Minister for Planning and Infrastructure, Alannah MacTiernan, as keynote speaker. The program will consist of a number of presentations on this year's key themes of '*Understanding unlimited opportunities*', '*Readiness to capitalise*' and '*No limits to the Mid West*'.

[www.economicsummit.com.au](http://www.economicsummit.com.au)



# RESOURCE PROJECTS

## IRON ORE

### **Geraldton Iron Ore Alliance**

Midwest Corporation, Murchison Metals, Gindalbie Metals, Mt Gibson Iron, Golden West Resources, Royal Resources, and Asia Iron are members of the "Geraldton Iron Ore Alliance" with former WA State Development Minister Clive Brown as an independent Chairman. The Alliance has been formed to facilitate the development of the iron ore industry in the Mid West.

The Alliance has released seven reports including "Mining Expansion in the Mid West: Social and Economic Benefits" which is an economic study on the impacts of proposed iron ore mining in the Mid West. The reports are available on their website.

[www.gioa.com.au](http://www.gioa.com.au)

### **Mount Gibson Iron**

#### **Extension Hill Hematite (\$84M) - Planned**

The project is in the final stages of a Public Environmental Review (PER). Product will be trucked from Extension Hill to Perenjori and then railed to the Geraldton Port. The project will require upgrades to the Perenjori Mt Gibson Road, establishment of a rail siding at Perenjori, rail track upgrades, construction of rail passing loops and storage facilities at the Geraldton Port.

[www.mtgibsoniron.com.au](http://www.mtgibsoniron.com.au)

### **Asia Iron**

#### **Extension Hill Magnetite (Approx \$1B) - Planned**

The project is in the final stages of a Public Environmental Review (PER). It is based on the production of 5 - 10 mtpa of magnetite concentrate and includes construction of mine, concentrator, approx 280 km slurry pipeline to deliver product to the Geraldton Port, approx 280 km return water line, approx 200 km gas pipeline and dedicated storage at Geraldton Port. The project has a 20+ year life and a construction period of 2 years.

### **Midwest Corporation**

#### **1) Koolanooka / Blue Hills (\$18M) – In Progress**

Operations commenced in January 2006 from the existing Koolanooka fines stockpile. Once exhausted mining will commence at Koolanooka and later at Blue Hills approximately 60 km east of Morawa. Production is planned to increase from 1 to 2 mtpa by 2009. Plans to transfer haulage operations from road to rail in late 2007 / early 2008 are well advanced with the arrival of 64 wagons in May 2007. The move to rail will require establishment of a rail siding, rail track upgrades and construction of rail passing loops. Prior to mining commencing at Blue Hills the road between Blue Hills and Koolanooka will need to be upgraded. The Koolanooka to Morawa section has already been upgraded.

#### **2) Weld Range (Estimated at around \$400 - \$500M excluding Oakajee port and Murchison rail) - Planned**

Weld Range is located 65 km north west of Cue with the project calling for around 15 - 20 mtpa of hematite for 20+ years including approximately 450 km of new rail and a deep-water port at Oakajee 20 km north of Geraldton for Cape size vessels. A significant exploration program commenced in mid 2006 with a resource statement released in August 2007. A scoping study was completed in March 2007. As a result of this the company will commence a pre feasibility study that is scheduled for completion in the middle of 2008. Under the terms of its agreement with Sinosteel this study will be more detailed than would normally be required resulting in less time to complete the Bankable feasibility study. Production is targeted for 2010/11.

On May 31<sup>st</sup> Midwest Corporation announced that it had entered into an agreement with Yilgarn Infrastructure ([www.yil.com.au](http://www.yil.com.au)) to develop the Oakajee port and Murchison rail proposal.

### **3) Jack Hills - Proposed**

Midwest Corporation has a significant landholding at Jack Hills and commenced a drilling program there in the fourth quarter of 2006. Drilling will continue to 2008. Plans call for a 5 – 10 mtpa operation for approximately 10+ years. This is proposed to be developed once infrastructure for both Weld Range and Jack Hills is in place.

### **4) Koolanooka Magnetite (Approx \$1B) - Proposed**

The scoping study was completed in February 2006. A programme of further metallurgical test work to optimise concentrate recovery is under way prior to further drilling and commencement of a pre feasibility study. The concept calls for approximately 6 mtpa of magnetite concentrate for 20+ years.

[www.midwestcorp.com.au](http://www.midwestcorp.com.au)

### **Murchison Metals Limited**

#### **Jack Hills Stage 2 (Estimated at around \$400 - \$500M excluding Oakajee port and Murchison rail) - Planned**

Plans call for up to 25 mtpa including approximately 450 km of new rail and a deep-water port at Oakajee 20km north of Geraldton for Cape size vessels. The concept is based on a 20 year project life. Project studies are well advanced with an extensive exploration program in place to prove up the resource.

On June 18<sup>th</sup> Murchison Metals announced that it had sold half of the project to Mitsubishi. An initial payment of \$150M is to be made with the balance of the “Deferred Payment” to be determined at the completion of studies. Additionally Murchison Metals and Mitsubishi are to form a separate infrastructure company to develop the associated Oakajee port and rail facilities. The total potential investment in mine, port and rail is likely to be close to \$3 billion. On 10 October, Murchison announced an unconditional takeover offer to acquire all of the shares in Midwest Corporation.

[www.mml.net.au](http://www.mml.net.au)

### **Gindalbie Metals**

#### **1) Mungada Hematite (\$75M) - Planned**

Mining is scheduled to commence at the rate of approximately 2 mtpa, rising to 3 mtpa from Mt Karara 90 km east of Morawa in Mid 2008. Product will be trucked to a railhead and then railed to the Geraldton Port. The project will require upgrades to an existing haul road, establishment of a rail siding, rail track upgrades, construction of rail passing loops and storage facilities at the Geraldton Port. The current resource stands at 27.1 MT with ongoing exploration. The feasibility study on this project was successfully completed in September 2007.

#### **2) Mt Karara Magnetite Project (Approx \$1.6B) - Planned**

The resource has been upgraded from 1.29 to 1.43 billion tonnes (potential 40 year mine life) and a positive bankable feasibility study was completed in August 2007. Plans call for the mining of 20 mtpa of ore to produce 8 mtpa of magnetite concentrate that will be transported via either a 225 km slurry pipeline or an upgraded rail network to the Geraldton Port where it will be exported from the proposed Berth 7. Production is currently planned to commence around late 2009 / early 2010.

On June 4<sup>th</sup> it was announced that Ansteel was to take a strategic equity position in Gindalbie. A successful share subscription of 60 million shares at 60 cents raised \$39M saw Ansteel become Gindalbie's second largest shareholder. On July 6<sup>th</sup> it was announced that Gindalbie had signed MOU's with both Yilgarn Infrastructure and WestNet Rail to investigate transport options (rail or slurry pipeline) to both Geraldton Port and to Oakajee to facilitate increased production.

Gindalbie executed a wide-ranging Joint Venture Development Agreement with leading Chinese steel and iron ore producer Ansteel in September 2007 to proceed with development of the Karara Magnetite Project through a 50:50 incorporated Joint Venture. Located 225km east of Geraldton, the Karara Magnetite Project will involve a A\$1.6 billion integrated development of the world-class Karara magnetite deposit to produce both high-grade magnetite concentrate and blast furnace quality pellets for export to north-eastern China.

[www.gindalbie.com.au](http://www.gindalbie.com.au)

### **Golden West Resources**

The Wiluna West project is located approximately 35 km south west of Wiluna and is planned as two distinct stages.

#### **1) Stage 1 - Planned**

This is based around the mining of approximately 1 mtpa of high grade hematite for a direct shipping operation (DSO) for approximately 5 years. Product will be exported through Esperance. An inferred resource of 50 mt has been identified with a target to establish a resource of 100 mt of at least 61% iron by 31 December 2007.

#### **2) Stage 2 - Proposed**

The concept calls for approximately a 10 mtpa operation and is currently focused on proving a 200 mt resource. The options of exporting via Esperance or Oakajee are being investigated. Transport costs to Oakajee are expected to be some 20% cheaper due to Oakajee being approximately 200km closer than Esperance.

On the 4 September 2007 Fairstar Resources announced a takeover offer for Golden West Resources. [www.goldenwestresources.com](http://www.goldenwestresources.com)

### **Ferrowest (\$437M) - Proposed**

The Yalgoo Iron Project is located 14 km east of Yalgoo. The project concept calls for the mining of 2.4 mtpa to produce 770,000 tpa of magnetite concentrate and then 500,000 tpa of iron nuggets using one of the emerging merchant pig iron making technologies. The project would utilise existing infrastructure including the town of Yalgoo, Mid West Gas pipeline and Geraldton Mt Magnet road both of which traverse the leases:

- ❖ A scoping study was completed in December 2006.
- ❖ A pre-feasibility study was completed in July 2007.
- ❖ A bankable feasibility study is scheduled for completion in December 2009.
- ❖ The proposal is based on construction commencing in April 2009 and finishing in December 2010 with production commencing in the first quarter of 2011.

In June ore samples were dispatched to Kobe in Japan to confirm the suitability of the ore for use in both the ITmk3® and FASTMET/FASTMELT® merchant pig iron manufacturing technologies.

On July 29<sup>th</sup> an inferred resource of 112.5 mt was announced. This resource is sufficient to underwrite the first 20 years of the project and is from 10km of the 27km strike at the Yogi deposit. Exploration will continue but with an emphasis on identifying the most economic sections of the resource.

[www.ferrowest.com.au](http://www.ferrowest.com.au)

## **OIL & GAS PROJECTS**

### **Onshore Exploration**

Activity in the Perth Basin south of Dongara continues with a number of successes and an aggressive exploration program in place by both Arc Energy and Origin Energy. The Century 18 drill rig is being rotated across a number of projects.

Recent developments include:

- ❖ Beharra Springs 4 drilling was completed with flow tested rates in excess of 35 million cubic feet per day.
- ❖ Drilling at Apium 2 was completed for gas production on 21 July 2007.

[www.arcenergy.com.au](http://www.arcenergy.com.au)    [www.originenergy.com.au](http://www.originenergy.com.au)

### **Offshore Exploration**

After drilling 8 consecutive unsuccessful wells Roc Oil has had exploration success in all of its final three wells in the Perth Basin, Frankland-1 (Gas), Perseverance-1 (Gas) and Dunsborough-1 (Oil). It has been reported that of the three discoveries, Frankland and Dunsborough look as if they have the best chance of being developed but this is subject to further investigation.

[www.rocoil.com.au](http://www.rocoil.com.au)

## OTHER RESOURCE PROJECTS

### **Mercator Gold – In Progress**

Mercator acquired the Meekatharra gold assets from Saint Barbara mines in January 2006. Since then there has been ongoing exploration to establish gold reserves. On the 1st October 2007 Mercator Gold announced its first gold pour of 300 ounces. The first year production target is set at 120,000 ounces.

[www.mercatorgold.com](http://www.mercatorgold.com)

### **Precious Metals Australia (\$200M) – In Progress**

#### **1) Vanadium**

The Windimurra mine development continues to move from detailed design to the construction phase with major sections of work being awarded. Contracts for the purchase and delivery of natural gas for both the kiln and the new power station have been awarded

When in operation Windimurra will produce vanadium pentoxide and ferrovandium. Previously vanadium pentoxide produced on site was exported to South Africa for processing into ferrovandium. There is a stronger demand and higher prices for ferrovandium than for vanadium pentoxide. On the 26 October 2007 PMA received the principal environment approval to reconstruct and commence operations at Windimurra vanadium mine.

At the AGM on the 26 November 2007 shareholders will vote to change the company name from Precious Metals Australia to Windimurra Vanadium.

#### **2) Magnetite**

A by-product of the vanadium process is the production of approximately 1 mtpa of magnetite (iron ore). PMA is seeking markets for this material.

[www.pmal.com.au](http://www.pmal.com.au)

### **Gunson Resources (\$100M) - Proposed**

The Coburn Mineral Sands Project is located approximately 250 km north of Geraldton in the Gascoyne Region.

- ❖ A bankable feasibility study was completed late in 2004.
- ❖ A Public Environmental Review (PER) was released for comment in July and August 2005.
- ❖ Final environmental approval was granted in May 2006 subject to the preparation of a number of environmental management plans.
- ❖ Full permitting was achieved in March 2007.
- ❖ Construction would take 12 months.
- ❖ Mineral sands concentrates would be exported through Geraldton.
- ❖ The proposed project is based on a 12 year operation.

[www.gunson.com.au](http://www.gunson.com.au)

### **Monarch Gold Mining - Planned**

Monarch acquired the Minjar Gold Project from Gindalbie Metals in July 2006. Monarch's objective is to establish a minimum 3-year gold reserve inventory which would enable re-commissioning of the Minjar gold processing facility and production at an initial rate of approximately 50,000 ounces per annum. Existing equipment includes a 600,000 tpa treatment plant and mine village.

[www.monarchgold.com.au](http://www.monarchgold.com.au)

### **Reed Resources (\$256M) - Planned**

Barrambie is located approximately 80 km north of Sandstone and was acquired as an advanced exploration project in April 2003. Key points to date are:

- ❖ a pre feasibility study was completed in 2006;
- ❖ this was based on an initial mine life of 12 years;
- ❖ the lease contains 11 km of strike of which 2 km has been adequately drilled to outline the current resources;



- ❖ Reed believes the existing tenements hold potential to extend the operating life to at least 25 years;
- ❖ in January 2007 it was announced that a full feasibility study would be undertaken in two stages and is scheduled for completion in June 2008;
- ❖ should the project proceed commissioning would be in late 2010.

[www.reedresources.com](http://www.reedresources.com)

## RESOURCE PROJECTS TO WATCH FOR DEVELOPMENTS

### **Abra Mining**

Investigating a lead project approximately 200 km north of Meekatharra.

[www.abramining.com.au](http://www.abramining.com.au)

### **Accent Resources**

Iron ore leases adjacent to Mt Gibson Iron at Mt Gibson.

[www.accentresources.com.au](http://www.accentresources.com.au)

### **Apex Minerals**

Has purchase the Youanmi mine (120km south of Sandstone), the Gidgee mine (90 km north of Sandstone) which is on care and maintenance and the Wiluna mine (to be on care and maintenance at the end of July). Plans are to process ore from all three mines through Wiluna subject to further exploration results.

[www.apexminerals.com.au](http://www.apexminerals.com.au)

### **Atlas Iron**

Atlas Iron has purchased two granted mining leases at Mount Gould and Wilgie Mia in the Jack Hills and Mt Weld area. The high grade deposits, estimated by Atlas Iron to be between 30 to 40 mt, averaged 66.53% iron from 37 sample traverses, with 3 at 69% iron.

[www.atlasiron.com.au](http://www.atlasiron.com.au)

### **Batavia Mining**

Investigating a number of options at Gullewa (approximately 60 km south west of Yalgoo).

[www.bataviamining.com.au](http://www.bataviamining.com.au)

### **Dynasty Metals Australia**

Exploring for coal seam methane in the Irwin River Coal Measures.

[www.dynastymetals.com.au](http://www.dynastymetals.com.au)

### **Giralia Resources**

Investigating a number of proposals in the Mid West including gold and iron ore.

[www.giralia.com.au](http://www.giralia.com.au)

### **Magellan Metals**

Its lead mine 30 km west of Wiluna is on care and maintenance pending the resolution of new export arrangements.

[www.ibernia.com](http://www.ibernia.com)

### **Metals Australia Ltd**

Investigating the Manindi Zinc Deposit approximately 120 km south west of Sandstone.

[www.austunitedgold.com](http://www.austunitedgold.com)

**Mount Magnet South**

Mount Magnet South NL has assembled 105 strategically located tenements covering 739km<sup>2</sup> in the Mt Magnet and Paynes Find regions. A large portion of the company's tenement areas are within 25 km of Mt Magnet townsite. The Company's extensive ground covering means it is the second largest landholder of mining and exploration tenements in the Mt Magnet region after Harmony.

[www.mountmagnet.com.au](http://www.mountmagnet.com.au)

**Red River Resources**

Red River Resources has identified 4 new zones of iron enrichment at its Feral prospect near Koolanooka. Work completed has identified a prime zone of enrichment containing 300m by 50m of enriched iron grades up to 64%.

[www.redriverresources.com.au](http://www.redriverresources.com.au)

**Reward Minerals**

Investigating a potash project at Lake Disappointment in the north eastern reaches of the region.

[www.rewardminerals.com](http://www.rewardminerals.com)

**Royal Resources**

Iron ore leases close to Gindalbie Metals Mt Karara project.

[www.royalresources.com.au](http://www.royalresources.com.au)