GOVERNMENT OF WESTERN AUSTRALIA

MINISTER FOR THE ENVIRONMENT; SCIENCE

Statement No.

000685

STATEMENT THAT A PROPOSAL MAY BE IMPLEMENTED (PURSUANT TO THE PROVISIONS OF THE ENVIRONMENTAL PROTECTION ACT, 1986)

BLUEWATERS POWER STATION
SHIRE OF COLLIE

Proposal:	The construction and operation of a sub-critical coal-fired base-load power generating facility with a nominal generating capacity of 200 megawatts on a site located approximately four kilometres north-east of Collie, as documented in schedule 1 of this statement.
Proponent:	Griffin Power Pty Ltd
Proponent Address:	15th Floor, 28 The Esplanade, PERTH WA 6000
Assessment Number:	1487

Report of the Environmental Protection Authority: Bulletin 1160

The proposal referred to above may be implemented by the proponent subject to the following conditions and procedures:

1 Implementation

1-1 The proponent shall implement the proposal as documented in schedule 1 of this statement subject to the conditions of this statement.

2 Proponent Commitments

2-1 The proponent shall implement the environmental management commitments documented in schedule 2 of this statement.

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3 Proponent Nomination and Contact Details

3-1 The proponent for the time being nominated by the Minister for the Environment under section 38(6) or (7) of the *Environmental Protection Act 1986* is responsible for the implementation of the proposal until such time as the Minister for the Environment has exercised the Minister's power under section 38(7) of the Act to revoke the nomination of that proponent and nominate another person as the proponent for the proposal.

3-2 If the proponent wishes to relinquish the nomination, the proponent shall apply for the transfer of proponent and provide a letter with a copy of this statement endorsed by the proposed replacement proponent that the proposal will be carried out in accordance with this statement. Contact details and appropriate documentation on the capability of the proposed replacement proponent to carry out the proposal shall also be provided.

3-3 The nominated proponent shall notify the Department of Environment of any change of contact name and address within 60 days of such change.

4 Commencement and Time Limit of Approval

4-1 The proponent shall substantially commence the proposal within five years of the date of this statement or the approval granted in this statement shall lapse and be void.

Note: The Minister for the Environment will determine any dispute as to whether the proposal has been substantially commenced.

4-2 The proponent shall make application for any extension of approval for the substantial commencement of the proposal beyond five years from the date of this statement to the Minister for the Environment, prior to the expiration of the five-year period referred to in condition 4-1.

The application shall demonstrate that:

1. the environmental factors of the proposal have not changed significantly;

2. new, significant, environmental issues have not arisen; and

3. all relevant government authorities have been consulted.

Note: The Minister for the Environment may consider the grant of an extension of the time limit of approval not exceeding five years for the substantial commencement of the proposal.

5 Compliance Audit and Performance Review

5-1 The proponent shall prepare an audit program and submit annual compliance reports to the Department of Environment which address:

1. the status of implementation of the proposal as defined in schedule 1 of this statement;

2. evidence of compliance with the conditions and commitments; and

3. the performance of the environmental management plans and programs.

Note: Under sections 48(1) and 47(2) of the *Environmental Protection Act 1986*, the Chief Executive Officer of the Department of Environment is empowered to monitor the compliance of the proponent with the statement and should directly receive the compliance documentation, including environmental management plans, related to the conditions, procedures and commitments contained in this statement.

5-2 The proponent shall submit a performance review report every five years after the start of operations, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority, which addresses:

1. the major environmental issues associated with the project; the targets for those issues; the methodologies used to achieve these; and the key indicators of environmental performance measured against those targets;

2. the level of progress in the achievement of sound environmental performance, including industry benchmarking, and the use of best available technology where practicable;

3. significant improvements gained in environmental management, including the use of external peer reviews;

4. stakeholder and community consultation about environmental performance and the outcomes of that consultation, including a report of any on-going concerns being expressed; and

5. the proposed environmental targets over the next five years, including improvements in technology and management processes.

5-3 The proponent may submit a report prepared by an auditor approved by the Department of Environment under the "Compliance Auditor Accreditation Scheme" to the Chief Executive Office of the Department of Environment on each condition/commitment of this statement which requires the preparation of a management plan, programme, strategy or system, stating whether the requirements of each condition/commitment have been fulfilled within the timeframe stated within each condition/commitment.

6 Greenhouse Gas Abatement

6-1 Prior to the commencement of construction, the proponent shall demonstrate that the plant has been designed to achieve reductions in greenhouse gas emissions as far as practicable, to the requirements of the Minister for the Environment, on the advice of the Environmental Protection Authority.

6-2 Within six months of the commencement of construction, the proponent shall develop a Greenhouse Gas Abatement Program to :

- ensure that the plant is operated in a manner which achieves reductions in "greenhouse gas" emissions as far as practicable;
- provide for ongoing "greenhouse gas" emissions reductions over time;
- ensure that through the use of best practice (as defined in EPA Guidance Statement No. 55), the total net "greenhouse gas" emissions and/or "greenhouse gas" emissions per unit of product from the project are minimised; and
- manage "greenhouse gas" emissions in accordance with the *Framework Convention on Climate Change 1992*, and consistent with the National Greenhouse Strategy;

to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

This Program shall include:

1. calculation of the "greenhouse gas" emissions associated with the proposal, as advised by the Environmental Protection Authority;

   Note: The current requirements of the Environmental Protection Authority are set out in: *Minimising Greenhouse Gas Emissions, Guidance for the Assessment of Environmental Factors, No. 12* published by the Environmental Protection Authority (October 2002). This document may be updated or replaced from time to time.

2. specific measures to minimise the total net "greenhouse gas" emissions and/or the "greenhouse gas" emissions per unit of product associated with the proposal using a combination of "no regrets" and "beyond no regrets" measures;

3. the implementation and ongoing review of "greenhouse gas" offset strategies with such offsets to remain in place for the life of the proposal;

4. estimation of the "greenhouse gas" efficiency of the project (per unit of product and/or other agreed performance indicators) and comparison with the efficiencies

of other comparable projects producing a similar product, both within Australia and overseas;

5. implementation of thermal efficiency design and operating goals consistent with the Australian Greenhouse Office Technical Efficiency guidelines in design and operational management;

6. actions for the monitoring, regular auditing and annual reporting of "greenhouse gas" emissions and emission reduction strategies;

7. a target set by the proponent for the progressive reduction of total net "greenhouse gas" emissions and/or "greenhouse gas" emissions per unit of product and as a percentage of total emissions over time, and annual reporting of progress made in achieving this target. Consideration should be given to the use of renewable energy sources such as solar, wind or hydro power;

8. a program to achieve reductions in "greenhouse gas" emissions, consistent with the target referred to in (7) above;

9. entry, whether on a project-specific basis, company-wide arrangement or within an industrial grouping, as appropriate, into the Commonwealth Government's "Greenhouse Challenge" voluntary cooperative agreement program.

   Components of the agreement program include:
   1. an inventory of emissions;
   2. opportunities for abating "greenhouse gas" emissions in the organisation;
   3. a "greenhouse gas" mitigation action plan;
   4. regular monitoring and reporting of performance; and
   5. independent performance verification.

10. Review of practices and available technology; and

11. "Continuous improvement approach" so that advances in technology and potential operational improvements of plant performance are adopted.

Note: In (2) above, the following definitions apply:

1. "no regrets" measures are those which can be implemented by a proponent and which are effectively cost-neutral.
2. "beyond no regrets" measures are those which can be implemented by a proponent and which involve additional costs that are not expected to be recovered.

6-3 The proponent shall implement the Greenhouse Gas Abatement Program required by condition 6-2.

6-4 The proponent shall make the Greenhouse Gas Abatement Program required by condition 6-2 publicly available.

7 Stack Emissions and Ambient Air Quality Monitoring

7-1 Prior to the commencement of construction, the proponent shall demonstrate that the plant has been designed to ensure that best available, practicable and efficient technologies are to be used to minimise total air emissions from the power station to meet emission limits consistent with current industry standards and ambient air quality standards to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

7-2 Within six months of the commencement of construction, the proponent shall prepare a Stack Emissions Management and Ambient Air Quality Monitoring Plan, to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The objectives of the plan are:

- To ensure that air emissions from the ongoing operation of the power station are minimised; and,
- To ensure that high quality data are available to model and verify ambient air quality, and to provide input to a future Air Quality Management Framework for Collie.

This Plan shall address:

1. ongoing management of air emissions during the operation of the power station

2 monitoring of air emissions;

3. monitoring of ambient air quality; and

4. public reporting of air emissions, ambient air quality and any complaints about air emissions;

and shall be developed in consultation with the following parties:

- Environmental Protection Authority;
- Department of Health;
- Industry stakeholders; and
- Community stakeholders.

7-3 The proponent shall implement the Stack Emissions Management and Ambient Air Quality Monitoring Plan required by condition 7-2.

7-4 The proponent shall make the Stack Emissions Management and Ambient Air Quality Monitoring Plan required by condition 7-2 publicly available.

8 Decommissioning Plans

8-1 Within six months of the commencement of construction, the proponent shall prepare a Preliminary Decommissioning Plan, which provides the framework to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Preliminary Decommissioning Plan shall address:

1 the rationale for the siting and design of plant and infrastructure as relevant to environmental protection, and conceptual plans for the removal or, if appropriate, retention of plant and infrastructure;

2 the long-term management of ground and surface water systems affected by the power station, coal stockpiles, waste disposal areas and associated infrastructure;

3 a conceptual rehabilitation plan for all disturbed areas and a description of a process to agree on the end land use(s) with all stakeholders;

4 a conceptual plan for a care and maintenance phase; and

5 management of potentially polluting materials to avoid the creation of contaminated areas.

8-2 At least 12 months prior to the anticipated date of decommissioning, or at a time agreed with the Environmental Protection Authority, the proponent shall prepare a Final Decommissioning Plan designed to ensure that the site is left in an environmentally acceptable condition to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority.

The Final Decommissioning Plan shall address:

1 the removal or, if appropriate, retention of plant and infrastructure in consultation with relevant stakeholders;

2 the long-term management of ground and surface water systems affected by the power station, coal stockpiles, waste disposal areas and associated infrastructure;

3 rehabilitation of all disturbed areas to a standard suitable for the agreed new land use(s); and

4 identification of contaminated areas, including provision of evidence of notification and proposed management measures to relevant statutory authorities.

8-3 The proponent shall implement the Final Decommissioning Plan required by condition 8-2 until such time as the Minister for the Environment determines, on advice of the Environmental Protection Authority, that the proponent's decommissioning responsibilities have been fulfilled.

8-4 The proponent shall make the Final Decommissioning Plan required by condition 8-2 publicly available.

Procedures

1 Where a condition states "to the requirements of the Minister for the Environment on advice of the Environmental Protection Authority", the Environmental Protection Authority will provide that advice to the Department of Environment for the preparation of written notice to the proponent.

2 The Environmental Protection Authority may seek advice from other agencies or organisations, as required, in order to provide its advice to the Department of Environment.

3 Where a condition lists advisory bodies, it is expected that the proponent will obtain the advice of those listed as part of its compliance reporting to the Department of Environment.

Notes

1 The Minister for the Environment will determine any dispute between the proponent and the Environmental Protection Authority or the Department of Environment over the fulfilment of the requirements of the conditions.

2 The proponent is required to apply for a Works Approval, Licence and Registration for this project under the provisions of Part V of the *Environmental Protection Act 1986*.

3 Within this statement, to "have in place" means to "prepare, document, implement and maintain for the duration of the proposal".

Dr Judy Edwards MLA
MINISTER FOR THE ENVIRONMENT; SCIENCE

24 AUG 2005

Schedule 1

Bluewaters Power Station (Assessment No. 1487)

The proposal is to construct and operate a sub-critical coal-fired base-load power station with a nominal generating capacity of up to 200 Megawatts on a site located approximately 4 kilometres north-east of Collie (Figure 1). The power station will supply electricity to customers in the proposed Coolangatta Industrial Estate, or via the South West Interconnected System (SWIS).

The power station will comprise the following components:

- boiler and turbine power block;
- mechanical draft cooling tower;
- flue gas cleaning equipment;
- a 100 metre stack;
- ash and dust disposal plant;
- water treatment plant;
- generator transformer switchyard;
- transmission line connection to Western Power Corporation switchyard;
- buildings for administration, stores, water, sewage treatment, and chemical storage;
- liquid fuel storage facilities (typically for start-up purposes);
- communications and control systems;
- water supplies;
- electrical supplies;
- drainage systems;
- roads and fencing; and
- saline wastewater discharge through the existing Collie Power Station ocean outfall.

The plant layout is shown in Figure 2 below. A diagram showing the input and output flows for the power station is shown in Figure 3 below. The main characteristics of the proposal are summarised in Table 1 below.

Table 1 - Key Proposal Characteristics (Assessment No. 1487)

ELEMENT	DESCRIPTION
General	
• Project Purpose:	To produce electricity to supply to the SWIS grid or direct to customers
• Construction Period:	Approximately 30 months to commercial operation
• Project Life:	Approximately 30 years
• Power Plant Type:	Subcritical coal-fired power station
• Power Generating Capacity:	Up to 200MW$_e$ nominal, 202 3MW design
• Plant Thermal Efficiency:	HHV 36 4% - LHV 38.6%
• Plant Operation:	Base-load operation 24 hours per day, 365 days per year
• Shutdown Time:	Plant maintenance shutdowns may be scheduled annually
• Maximum Facility Footprint:	350m x 150m area
• Maximum Total Area:	15 hectares
Plant Facilities	
• Stacks:	1
• Height of Stack:	100m
• Diameter of Stack:	4 13m
• Cooling Towers:	1 set
• Liquid Fuel Storage Tanks:	2 x 100,000 litres and 1 x 10,000 litres
• Boiler:	Balanced draft pulverised coal steam generator matched to steam turbine capacity
• Steam Turbine:	Tandem compound reheat steam turbine with synchronous alternator – 200MW$_e$
• Wastewater collection:	Package treatment plant
Utilities	
• Water Supply:	3.25GL/yr sourced from mine dewatering at Ewington 1
• Coal Supply:	0.7Mtpa via conveyor
• Transmission Line Length:	100m up to 3km depending on interconnection point as required by Western Power
Emissions	
• Noise:	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie
• Flue Dust:	47mg/Nm^3 at 7% O_2 dry basis; 9g/s; 227tpa
• Nitrogen Oxides:	606mg/Nm^3 at 7% O_2 dry basis; 121g/s; 3050tpa
• Sulphur Oxides:	1490mg/Nm^3 at 7% O_2 dry basis; 296g/s; 7470tpa
• Greenhouse Gases:	1,300,000tpa CO_2 e
• Carbon Monoxide:	500mg/Nm^3 at 7% O_2 dry basis; 93g/s; 2350tpa
• Volatile Organic Compounds:	32kg/yr
• PAHs:	6.0kg/yr
• Arsenic:	6.7kg/yr
• Cadmium:	8.5kg/yr
• Chromium compounds:	1.5kg/yr
• Lead compounds:	31kg/yr
• Mercury:	31kg/yr
• Fluorides:	17,000kg/yr (instantaneous rate estimated to be less than 590mg/s)
• POPs inc. Dioxins and Furans:	Less than 0.5 grams per year
Waste	
• Ash:	175,000tpa disposed to the adjacent mine (Ewington 1)
• Septage:	Package treatment plant
• Saline Water:	1.2GL/yr
Workforce	
• Construction:	Approximately 150 personnel at the peak of construction
• Operations:	Up to 30 full time operations and maintenance personnel

Table 1 - Key Proposal Characteristics (Assessment No. 1487) - (continued)

Abbreviations

CO_2 e	carbon dioxide equivalents	mg/s	milligrams per second
dB(A)	decibels A weighted	Mtpa	million tonnes per annum
g/s	grams per second	MW	megawatts
GL/yr	gigalitres per year	MW_e	megawatts sent out
HHV	higher heating value	O_2	oxygen
inc.	including	pa	per annum
kg	kilograms	PAHs	polycyclic aromatic hydrocarbons
kg/yr	kilograms per year	POPs	persistent organic pollutants
LHV	lower heating value	SWIS	South West Interconnected System
m	metres	tpa	tonnes per annum
mg/Nm^3	milligrams per standard cubic metre	%	percent

Figures (attached)

Figure 1: Regional location
Figure 2: Plant layout
Figure 3: Input - output flow diagram

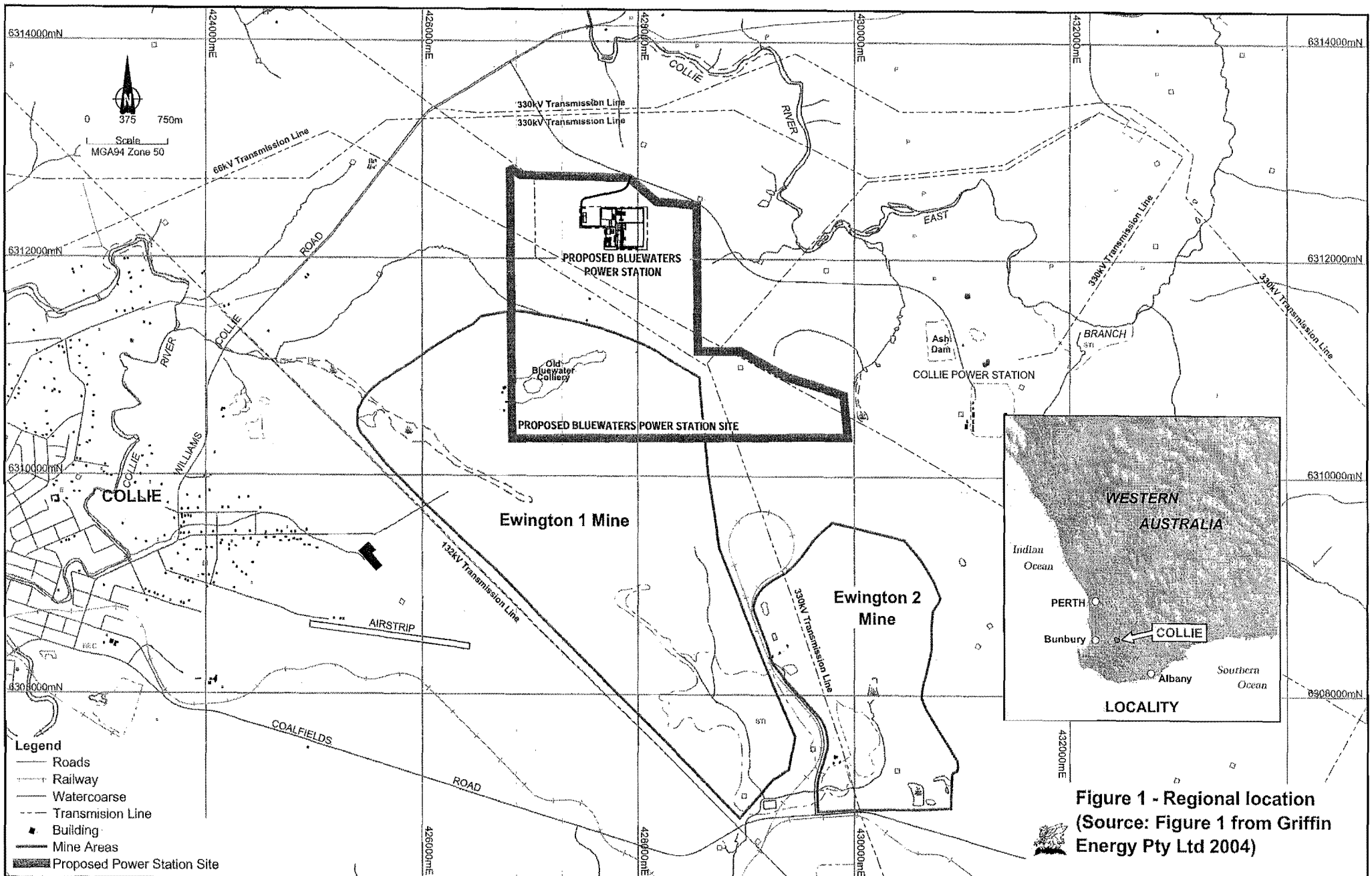

Figure 1 - Regional location (Source: Figure 1 from Griffin Energy Pty Ltd 2004)

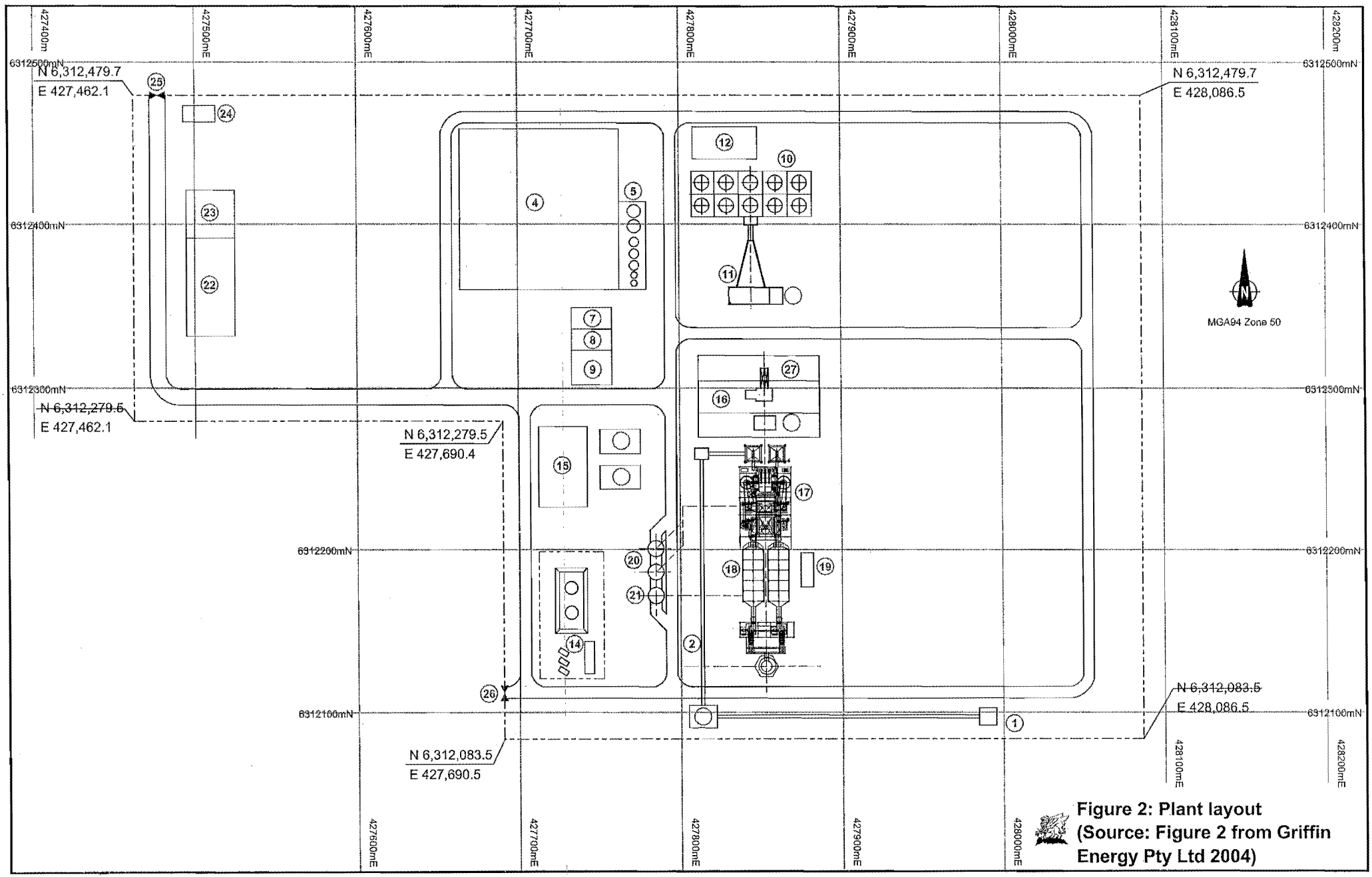

Figure 2: Plant layout (Source: Figure 2 from Griffin Energy Pty Ltd 2004)

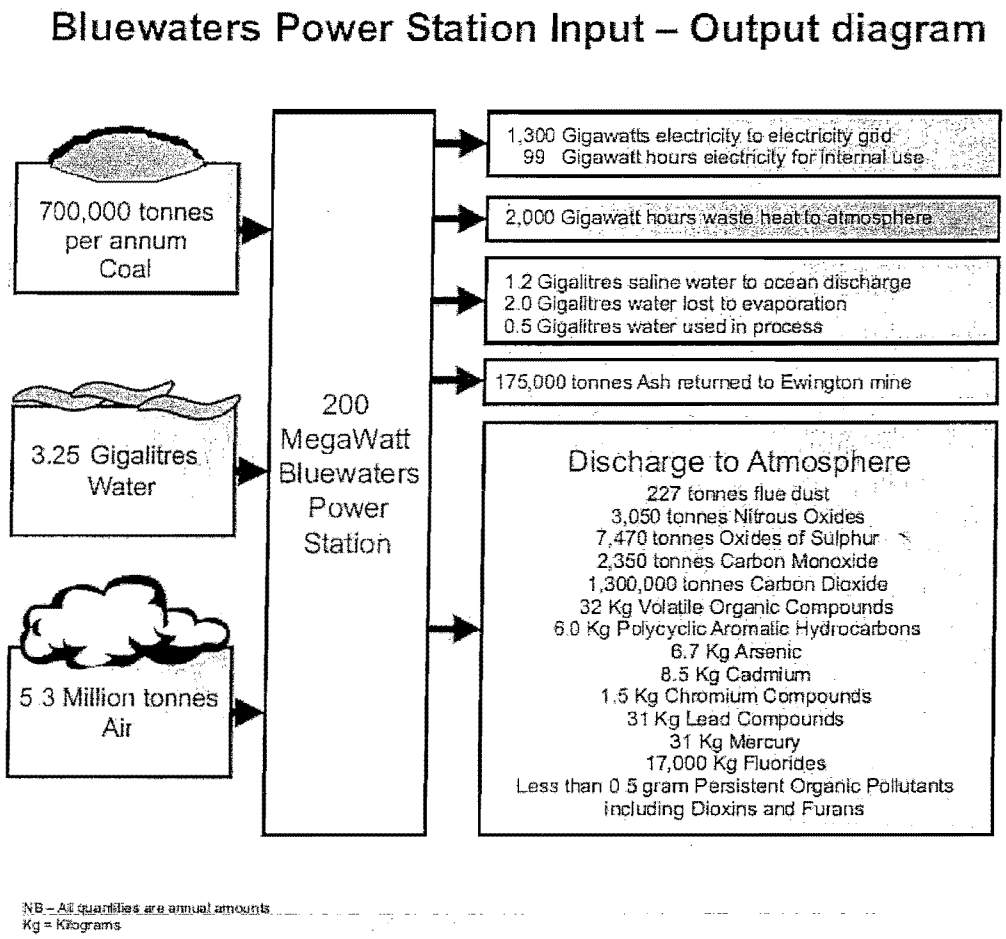

Figure 3: Input - output flow diagram

Schedule 2

Proponent's Environmental Management Commitments

February 2005

BLUEWATERS POWER STATION
SHIRE OF COLLIE

(Assessment No. 1487)

Griffin Energy Pty Ltd

Proponent's Environmental Management Commitments – February 2005

BLUEWATERS POWER STATION, SHIRE OF COLLIE (Assessment No. 1487)

Note: The term "commitment" as used in this schedule includes the entire row of the table and its six separate parts as follows:

- a commitment number;
- a commitment topic;
- the objective of the commitment;
- the 'action' to be undertaken by the proponent;
- the timing requirements of the commitment; and
- the body/agency to provide technical advice to the Department of Environment.

Commitment No.	Topic	Objective	Action	Timing	Advice
1	**Biodiversity**	Minimise clearing to establish power station. Examine all environmental factors and implementation of mitigation plans and activities.	Develop and implement an EMS for the proposal which meets AS/NZS ISO 14001:1996. The EMS will cover all elements in the standard as a minimum as well as the action items listed in this table: 1.1 Develop and implement a construction phase EMP. 1.2 Develop and implement an operational phase EMP.	Prior to commissioning and ongoing. Prior to construction. Prior to commissioning and ongoing.	Various stakeholders as indicated below. Various stakeholders as indicated below. Various stakeholders as indicated below.
2	**Terrestrial Flora:** • Vegetation Communities • Declared Rare Flora and Priority Flora • Flora of Conservation Significance	Removal of vegetation will be minimised where possible through appropriate location of the power station and associated infrastructure. The project will maximise the use of existing cleared land. Manage construction works to minimise disturbance to significant vegetation communities and priority flora. Maintain the abundance, species diversity, geographic distribution and productivity of vegetation communities.	2.1 Preparation and implementation of a Vegetation and Flora Management Plan addressing identification of areas not to be disturbed, site clearance procedures to manage construction works so as to avoid disturbance to native vegetation, and weed management practices. 2.2 If any clearing of native vegetation is determined to be required, the area will be surveyed and mapped prior to the commencement of construction, and the significance of impacted vegetation will be detailed.	Prior to construction. Prior to construction.	CALM. CALM.

Commitment No.	Topic	Objective	Action		Timing	Advice
3	**Terrestrial Fauna:** • All Fauna • Specially Protected (Threatened) Fauna	Maintain the abundance, species diversity, geographic distribution of terrestrial fauna. Protect Specially Protected (Threatened) Fauna, consistent with the provisions of the *Wildlife Conservation Act.*	3.1	Preparation and implementation of a Fauna Management Plan to ensure off-site and indirect fauna impacts are minimised. This may include: • ensuring physical disturbance is kept within designated areas, • establishment of procedures, monitoring requirements, workforce training and responsibilities to minimise disturbance of significant terrestrial fauna, • regular liaison with local CALM office to maintain acceptable management practices, • development and implementation of fire prevention and contingency measures.	Prior to construction.	CALM.
4	**Surface Water Quality**	To minimise erosion and impacts on local surface water or downstream environments.	4.1	Cooling water discharge will not be directed to the surface water system.	Prior to construction.	
			4.2	The plant will be designed to ensure that contaminants are not released to the environment.	Prior to commissioning and ongoing.	
			4.3	Contamination of surface water will be minimised by methods such as: • suitably designed drainage areas and settling basins; • appropriate design of areas to contain hazardous material such as hydrocarbons; • washdown water will be collected in drains and passed through sediment traps and oil separation systems prior to transfer to settling ponds.	Prior to construction.	
			4.4	Develop and implement construction phase Surface Water Management Plan as part of construction phase EMP.	Prior to construction.	
			4.5	Develop and implement operational phase Surface Water Management Plan as part of operational phase EMP.	Prior to commissioning	
			4.6	Document the existing surface water quality in the project area.	Prior to construction.	

Commitment No.	Topic	Objective	Action		Timing	Advice
5	**Groundwater Quality**	Maintain the quality of local and regional groundwater to ensure that existing and potential uses, including ecosystem maintenance, are protected.	5.1	The plant will be designed to ensure that contaminants are not released into the environment.	Prior to construction.	
			5.2	All potentially hazardous materials will be stored in accordance with relevant legislation and regulations.	Prior to commissioning and ongoing.	
			5.3	Develop and implement construction phase Groundwater Management Plan as part of construction phase EMP.	Prior to construction.	
			5.4	Develop and implement operational phase Groundwater Management Plan as part of operational phase EMP.	Prior to commissioning	
6	**Water Supply**		6.1	Develop and implement an appropriate water supply and management strategy which will satisfy requirements during both the construction and operation phases of the project.	Prior to construction	
			6.2	Develop and implement construction phase Water Management Plan as part of Construction EMP.	Prior to construction.	
			6.3	Develop and implement operational phase Water Management Plan as part of operational EMP.	Prior to commissioning and ongoing	
7	**Marine Water Quality**	Maintain marine ecological integrity and biodiversity and ensure that any impacts on locally significant marine communities are avoided.	7.1	Cooperate with operator of Collie A disposal line to ensure that effluent water meets discharge licence conditions prior to introduction into line.	Prior to commissioning and ongoing.	Operator of Collie A discharge line.
			7.2	Determine final details of the wastewater quality and quantity and conduct a detailed modelling assessment of the ocean outfall discharge (with the existing operator of Collie A) to demonstrate the dilution criteria that can be achieved with the additional saline water discharge. An assessment of the levels of other contaminants (such as biocides) discharged into the ocean will be included to ensure that they meet the ANZECC/ARMCANZ 2000 Water Quality Guidelines at the edge of the mixing zone.	Prior to commissioning	Operator of Collie A discharge line.
			7.3	Design and implement a Saline Water Management Plan incorporating a saline wastewater monitoring programme and wastewater management contingency plan, as part of the Operations EMP.	Prior to commissioning	Operator of Collie A discharge line.

Commitment No.	Topic	Objective	Action		Timing	Advice
8	**Contamination** **(Oil and chemical spills)**	To minimise potential adverse effects, risk and liability associated with management of oils and chemicals.	8.1	During the construction phase, potentially contaminating materials and activities will be stored and managed in accordance with regulatory requirements and good practice. Containment of any spillages or leakage will be a priority.	Prior to construction.	
			8.2	The plant will be designed to ensure spillages of chemicals or hydrocarbons are contained and collected.	Prior to commissioning and ongoing.	
			8.3	During operation of the plant, all potentially contaminating or hazardous materials will be stored in accordance with relevant legislation and regulations.	Ongoing	DoIR
			8.4	Develop and implement construction phase Contamination Management (Spills) Plan as part of construction phase EMP.	Prior to construction.	
			8.5	Develop and implement operational phase Contamination Management (Spills) Plan as part of operational phase EMP.	Prior to commissioning	
9	**Solid and Liquid Wastes**	To minimise potential contamination to the receiving environment.	9.1	During both the construction and operation phases of the project, solid and liquid wastes will be minimised through resource recovery, reuse and recycling programmes.	Prior to construction and ongoing.	Shire of Collie.
			9.2	All materials requiring disposal will be managed in accordance with the requirements of the relevant authorities and regulations.	Prior to commissioning and ongoing.	Shire of Collie.
			9.3	Waste hydrocarbons will be contained, collected and disposed off-site by an approved method.	Prior to construction	
			9.4	Domestic wastewater will be managed on site via a packaged treatment plant.	Prior to commissioning and ongoing	
			9.5	Develop and implement a Flyash Management Plan as part of the operational phase EMP.	Prior to commissioning and ongoing	CALM
			9.6	Cooling water discharge will be directed to Western Power's saline Water Pipeline	Prior to construction and ongoing	
			9.7	Develop an alternative plan for saline discharge that would be required in the event that the saline pipeline disposal option is lost to the project.	Prior to commissioning	
			9.8	Develop and implement construction phase Waste Management Plan	Prior to construction	
			9.9	Develop and implement operational phase Waste Management Plan as part of the operational phase EMP.	Prior to commissioning	

Commitment No.	Topic	Objective	Action		Timing	Advice
10	**Noise and Vibration:** • Construction Phase • Operations Phase	To minimise noise emissions and comply with Noise Regulations during construction and operations.	10.1	Appropriate noise abatement technology will be installed to ensure the power station meets relevant noise criteria.	Prior to construction.	
			10.2	Develop and implement construction phase Noise Management Plan as part of the construction phase EMP.	Prior to construction	
			10.3	Develop and implement operational phase Noise Management Plan as part of the operational phase EMP, including periodic monitoring to ensure compliance with Noise Regulations.	Prior to commissioning and ongoing.	
11	**Air Emissions:** • Construction Phase (Particulate / Dust) • Operations Phase (Particulate / Dust (PM_{10}), Oxides of Sulphur (SO_2), Oxides of Nitrogen (NO_X), VOC's, etc.)	To minimise particulate or gaseous emissions such that it will not adversely impact on the environment or affect welfare and amenity or cause health effects to surrounding land users.	11.1	Dust levels will be managed by minimising vegetation clearing, the use of dust suppression equipment and appropriate site management.	Prior to construction.	Shire of Collie.
			11.2	Best practice management will be used in the design and construction of coal handling.	Prior to commissioning and ongoing.	Shire of Collie.
			11.3	Develop and implement construction phase Dust Management Plan as part of construction phase EMP.	Prior to construction	
			11.4	Develop and implement operational phase Dust Management Plan as part of operational phase EMP.	Prior to commissioning and ongoing.	
			11.5	Develop and implement an operational Emissions Monitoring and Management Plan.	Prior to commissioning and ongoing.	

Commitment No.	Topic	Objective	Action		Timing	Advice
12	**Greenhouse Gas Emissions**	To minimise greenhouse gas emissions where practicable and comply with relevant guidelines (eg EPA Guidance No. 12).	12.1	Share in the contribution of financial and in kind support by the Griffin Group valued at $140,000pa to the Cooperative Research Centre for Coal in Sustainable Development (CCSD) for further investigation into clean coal technologies.	Ongoing.	CCSD.
			12.2	Initiate and develop other research and development projects to the point where they can be included as offsets in the GHG program.	Ongoing.	CSIRO, AGO, OOE, CALM, WA Department of Agriculture and other relevant stakeholders.
			12.2	Establish and implement an internal GHG trading system within the Griffin group of companies to maximise benefits from the Greenhouse Gas Emissions Management Plan.	Upon signing the commitment to the Greenhouse Challenge.	AGO.
13	**Recreational Activity**	Maintain recreational values for the local community as far as practicable.	13.1	Visual and noise impact will be minimised through planning design and screening strategies (eg. noise bunds and natural barriers).	Prior to construction and ongoing.	Shire of Collie. Local community
			13.2	Access to adjoining bush will not be affected.	Prior to construction and ongoing.	Shire of Collie. Local community
			13.3	Liaise with local community, produce and implement landscape and access management plan to reduce impact.	Prior to commissioning and ongoing.	Shire of Collie. Local community
14	**Visual Amenity**	To maintain visual amenity	14.1	Potential impacts on visual amenity will be minimised through planning design and screening strategies (eg. natural barriers).	Prior to construction and ongoing.	Shire of Collie. Local community
			14.2	Vegetation management and landscape strategies will be developed as appropriate.	Prior to construction and ongoing.	Shire of Collie. Local community

Commitment No.	Topic	Objective	Action		Timing	Advice
15	**Aboriginal Culture and Heritage**	To minimise disturbance to areas of Aboriginal and cultural significance.	15.1	Develop and implement Heritage and Culture awareness program for employees.	Prior to construction.	Local indigenous community. DIA. Shire of Collie.
			15.2	If sites of aboriginal significance are found during construction, application for clearance under Section 18 of the *Aboriginal Heritage Act 1972* will be sought from the Minister for Indigenous Affairs before disturbance.	During construction and ongoing.	DIA.
16	**Public Risk**	To ensure that the risk to public safety is as low as reasonably practicable (ALARP) and to minimise the potential creation of hazardous working environments.	16.1	Develop and implement local community liaison program	Prior to construction.	Shire of Collie. Local community.
			16.2	Hazardous materials will be stored and handled according to DoIR regulations.	During construction and ongoing.	DoIR
			16.3	Develop and implement Hazardous Materials Management Plan	Prior to construction.	DoIR

Abbreviations

AGO	Australian Greenhouse Office
CALM	Department of Conservation & Land Management
CCSD	Cooperative Research Centre for Coal in Sustainable Development
CRC	Cooperative Research Centre
CSIRO	Commonwealth Scientific & Industrial Research Organisation
DIA	Department of Indigenous Affairs
DoIR	Department of Industry & Resources
EMS	Environmental Management System
EPA	Environmental Protection Authority
GHG	Greenhouse Gas
OOE	Office of Energy
SWIS	South West Interconnected System
WRCA	W R Carpenter Agriculture

Attachment 1– Change to Proposal (Statement 685).

Proposal: Bluewaters 1 Power Station

Proponent: Griffin Energy Pty Ltd

Change: IN SCHEDULE 1, TABLE 1: KEY PROPOSAL CHARACTERISTICS (ASSESSMENT NO. 1487).

1. Modification of the location plan for the project as outlined in figure 1 of Ministerial Statement 685;
2. Clarification of "Maximum Facility Footprint" and "Maximum Total Area" in Table 1, Schedule 1 of statement 685; and
3. Clarification regarding "Infrastructure" and "Construction Laydown Envelope" areas which were not included in Table 1, Schedule 1 of statement 685.

From:

Element	**Quantities/Description**
Location Plan	Refer Figure 1
Maximum Facility Footprint.	350 m x 150 m area.
Maximum Total Area.	15 hectares.
Ancillary infrastructure (not defined in Statement 685, Key Characteristics, Schedule 1, Table 1)	
Construction Laydown Envelope (not defined in Statement 685, Key Characteristics, Schedule 1, Table 1)	

To:

Element	**Quantities/Description**
Location Plan (relocation of Bluewaters Power Station to 530m south east of site referred in EPA Bulletin 1160)	Refer new Figure 1 (attached).
Maximum Facility Footprint (area of power generating unit)	Approximately 5.25 ha (actual 1.99 ha).
Maximum Total Area (total area of power station plant)	Approximately 15 ha (actual 9.83 ha).
Ancillary Infrastructure (includes roads, benching for safe foundations, plant assembly areas, carparks, conveyors and the emergency coal stockpile)	Approximately 26.31 ha
Construction Laydown Envelope (pasture grass to be cut short prior to placement of materials in the area)	Approximately 18.7 ha

Figures (attached):
Figure 1. Bluewaters Power Station Location
Figure 2. Bluewaters Power Station Layout

Approval Date: 28/03/06

Attachment 2 to Statement 685

Change to Proposal

Proposal: Bluewaters Power Station Phase I

Proponent: Griffin Power Pty Ltd.

Amendment of Schedule 1 – Key Proposal Characteristics

The changes to the proposal are listed below:

- Power generating capacity – an increase from 200 megawatts to 208 megawatts (i.e. 4% increase).
- Construction laydown areas – an increase in the size of the laydown area.
- Air emissions profile – changed due to the use of an individual stack (instead of a shared stack), increased generating capacity (4%), and once Bluewaters Power Station Phase II is commissioned, the use of coal with a maximum sulphur content of 0.38%.
- Project layout – relocation of the wastewater treatment plant and re-alignment of the coal conveyor.

Features of previously approved Proposal:

Element	Quantities/Description
Power generating capacity	up to 200 megawatts
Flue dust	47 mg/Nm3; 9g/s; 227 tpa
Nitrogen oxides	606 mg/Nm3; 121g/s; 3050 tpa
Sulphur oxides	1490 mg/Nm3; 296 g/s; 7470 tpa
Carbon monoxide	500mg/m3; 93g/s; 2350 tpa
Greenhouse gas	1300 000 tpa
Volatile Organic Compounds	32 kg/yr
PAH	6.0 kg/yr
Arsenic	6.7 kg/yr
Cadmium	8.5 kg/yr
Chromium compounds	1.5 kg/yr
Lead compounds	31 kg/yr
Mercury	31 kg/yr
Flourides	17 000 kg/yr
Ash	175 000 tpa

Features of changed Proposal:

Element	Quantities/Description
Power generating capacity	up to 208 megawatts
Flue dust	47 mg/Nm3; 9.4 g/s; 237 tpa
Nitrogen oxides	500 mg/Nm3; 112.1 g/s; 2828 tpa
Sulphur oxides	229.9 g/s; 5800 tpa *
Carbon monoxide	500mg/m3; 97g/s; 2444 tpa
Greenhouse gas	1359 000 tpa
Volatile Organic Compounds	33.3 kg/yr
PAH	6.2 kg/yr
Arsenic	6.8 kg/yr
Cadmium	8.8 kg/yr
Chromium compounds	1.6 kg/yr
Lead compounds	32.2 kg/yr
Mercury	32.2 kg/yr
Flourides	17 680 kg/yr
Ash	182 000 tpa

* For Bluewaters Power Station Phase I in isolation, emissions of sulphur oxides limited to 320.7 g/s; 8091 tpa. Once Bluewaters Power Station Phase II is commissioned, emissions of sulphur oxides limited to 229.9 g/s; 5800 tpa.

Figure 1. Layout map revised

Approved under delegation from Minister for the Environment:

EPA Chairman

Approval Date: 18 SEP 2007

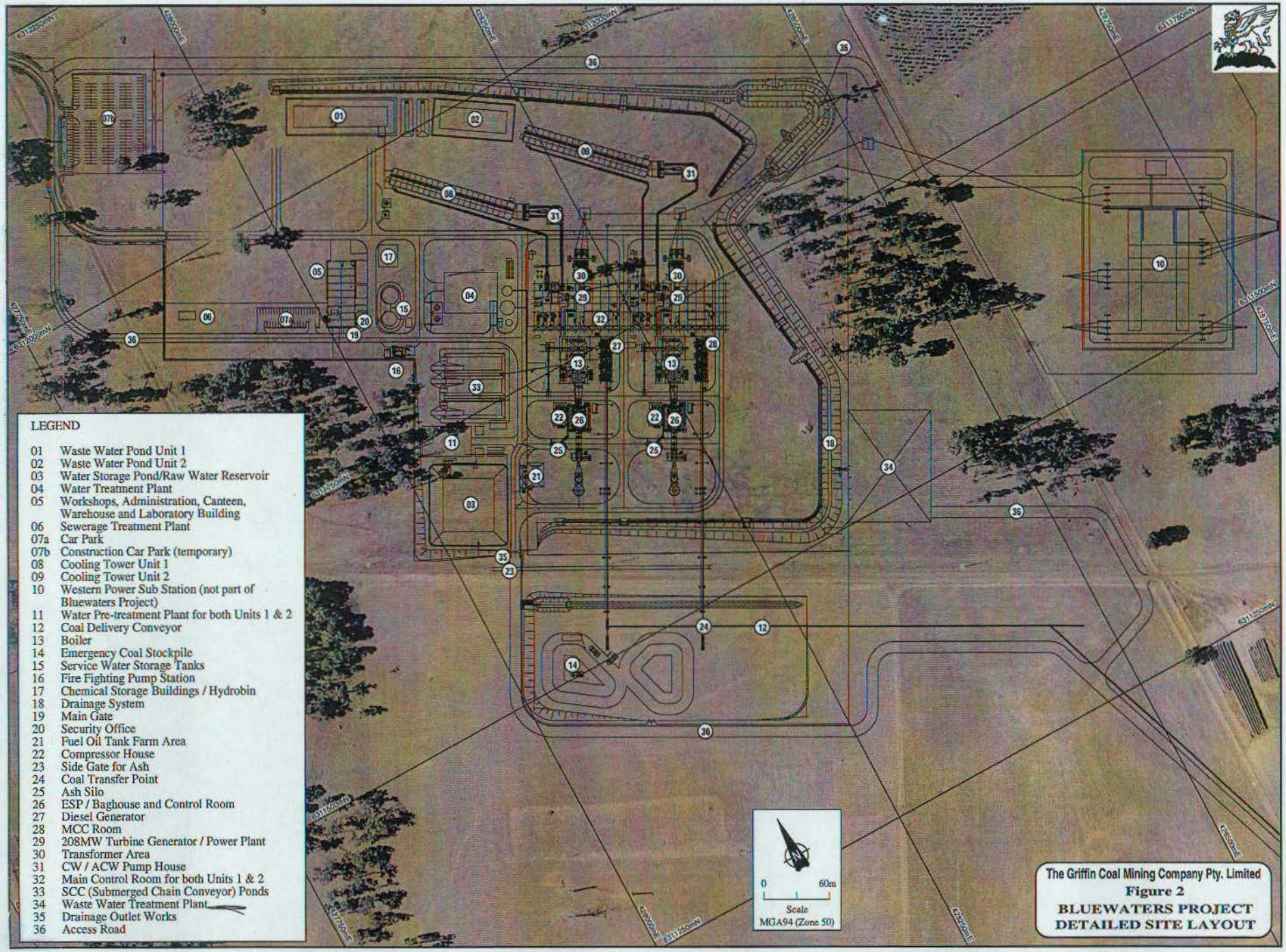

Figure 1. Layout map revised

Attachment 3 to Statement 685

Change to Proposal

Proposal: The construction and operation of a sub-critical coal-fired base-load power generating facility (Bluewaters Power Station - Phase I) with a nominal generating capacity of 208 megawatts on a site located approximately four kilometres north-east of Collie.

Proponent: Griffin Power Pty Ltd

Change: Addition of a contingency coal stockpile of 500,000 tonne capacity and two associated water storage dams adjacent to the power station.

Amendment of Schedule 1 – Key Proposal Characteristics

Features of currently approved Proposal:

The Proposal
Table 1

Element	***Quantities/Description***
Ancillary Infrastructure (includes roads, benching for safe foundations, plant assembly areas, carparks, conveyors and the emergency coal stockpiles)	Not defined in Schedule 1. Amended to 26.31ha in Attachment 1.

Features of approved change to Proposal:

The Proposal
Table 1

Element	***Quantities/Description***
Ancillary Infrastructure Includes roads, benching for safe foundations, plant assembly areas, carparks, conveyors and emergency coal stockpiles.	Approximately 23.75 ha
Contingency coal stockpile.	500,000 tonne capacity
Water storage dams associated with the contingency coal stockpile.	2

Approved under delegation
from the Minister for the Environment:

Approval Date: 12-8-08

Attachment 4 to Statement 685

Change to Proposal

Proposal: **Bluewaters Power Station, Shire of Collie**

Proponent: **Griffin Power Pty Ltd**

Change: Addition of a second ash disposal site.

Components of currently approved Proposal:

Component	Quantities/Description
Ash	182,000 tpa disposed to the adjacent mine (Ewington I).

Components of approved change to Proposal:

Component	Quantities/Description
Ash	182,000 tpa maximum disposed to the adjacent mines, Ewington I and Ewington II.

tpa = tonnes per annum

Approved under delegation
from the Minister for Environment:
Delegation under section 18 of
the *Environmental Protection Act 1986*
Dated 24 November 2004

S45C Approval Date: 7.11.08

Attachment 5 to Statement 685

Change to Proposal

Proposal: Bluewaters Power Station, Shire of Collie

Proponent: Griffin Energy Pty Ltd

Change: Increase greenhouse gas emissions to 1,562,000 tonnes per annum of carbon dioxide equilant

Key Characteristics Table:

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
General		
Project Purpose:	To produce electricity to supply to the SWIS grid or direct to customers	To produce electricity to supply to the SWIS grid or direct to customers
Construction Period:	Approximately 30 months to commercial operation	Approximately 30 months to commercial operation
Project Life:	Approximately 30 years	Approximately 30 years
Power Plant Type:	Subcritical coal fired power station	Subcritical coal fired power station
Power Generating Capacity:	Up to 208 megawatts	Up to 208 megawatts
Plant Thermal Efficiency:	HHV 36.4% - LHV 38.6%	HHV 36.4% - LHV 38.6%
Plant Operation:	Base load operation 24 hours per day, 365 days per year	Base load operation 24 hours per day, 365 days per year
Shutdown Time:	Plant maintenance shutdowns may be scheduled annually	Plant maintenance shutdowns may be scheduled annually
Maximum Facility Footprint (area of power generating unit):	Approximately 5.25ha (actual 1.99ha)	Approximately 5.25ha (actual 1.99ha)
Maximum Total Area (total area of power station plant):	Approximately 15ha (actual 9.83ha)	Approximately 15ha (actual 9.83ha)
Ancillary Infrastructure Includes roads, benching for safe foundations, plant assembly areas, car parks, conveyors and the emergency coal stockpile) Contingency coal stockpile Water storage dams associated with the contingency coal stockpile	Approximately 23.75ha 500,000 tonne capacity 2	Approximately 23.75ha 500,000 tonne capacity 2
Construction Laydown Envelope (pasture grass to be cut short prior to placement of materials in the area)	Approximately 18.7ha	Approximately 18.7ha
Plant facilities		
Stacks:	1	1
Height of Stack:	100m	100m
Diameter of Stack:	4.13m	4.13m
Cooling Towers:	1 set	1 set
Liquid Fuel Storage Tanks:	2 x 100,000 litres and 1 x 10,000 litres	2 x 100,000 litres and 1 x 10,000 litres
Boiler:	Balanced draft pulverised coal steam generator matched to steam turbine capacity	Balanced draft pulverised coal steam generator matched to steam turbine capacity

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
Steam Turbine:	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e
Wastewater collection:	Package treatment plant	Package treatment plant
Utilities		
Water Supply:	3.25GL/yr sourced from mine dewatering at Ewington 1	3.25GL/yr sourced from mine dewatering at Ewington 1
Coal Supply:	0.7Mtpa via conveyor	**[removed from table]**
Transmission Line Length:	100m up to 3km depending on interconnection point as required by Western Power	100m up to 3km depending on interconnection point as required by Western Power
Emissions		
Noise:	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie
Flue Dust:	47mg/Nm^3; 9.4g/s; 237tpa	47mg/Nm^3; 9.4g/s; 237tpa
Nitrogen Oxides:	500mg/Nm^3; 112.1g/s; 2828tpa	500mg/Nm^3; 112.1g/s; 2828tpa
Sulphur Oxides:	229.9g/s; 5800tpa*	229.9g/s; 5800tpa*
Greenhouse Gases:	1,359,000tpa CO_2 e	**1,562,000tpa CO_2 e**
Carbon Monoxide:	500mg/m^3; 97g/s; 2444tpa	500mg/m^3; 97g/s; 2444tpa
Volatile Organic Compounds:	33.3kg/yr	33.3kg/yr
PAHs:	6.0kg/yr	6.0kg/yr
Arsenic:	6.8kg/yr	6.8kg/yr
Cadmium:	8.8kg/yr	8.8kg/yr
Chromium compounds:	1.6kg/yr	1.6kg/yr
Lead compounds:	32.2kg/yr	32.2kg/yr
Mercury:	32.2kg/yr	32.2kg/yr
Fluorides:	17,680kg/yr	17,680kg/yr
POPs inc. Dioxins and Furans:	Less than 0.5 grams per year	Less than 0.5 grams per year
Waste		
Ash:	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II
Septage:	Packaged treatment plant	Packaged treatment plant
Saline Water:	1.2GL/yr	1.2GL/yr
Workforce		
Construction:	Approximately 150 personnel at the peak of construction	Approximately 150 personnel at the peak of construction
Operations:	Up to 30 full time operations and maintenance personnel	Up to 30 full time operations and maintenance personnel

*For Bluewaters Power Station Phase I in isolation, emissions of sulphur oxides limited to 320.7g/s; 8091tpa. Once Bluewaters Power Station Phase II is commissioned, emissions of sulphur oxides limited to 229.9g/s; 5800tpa.

Abbreviations

CO_2 e	carbon dioxide equivalents	LHV	lower heating value	O_2	oxygen
dB(A)	decibels A weighted	m	metres	pa	per annum
g/s	grams per second	mg/Nm^3	milligrams per standard cubic metre	PAHs	polycyclic aromatic hydrocarbons
GL/yr	gigalitres per year	mg/s	milligrams per second	POPs	persistent organic pollutants
HHV	higher heating value	Mtpa	million tonnes per annum	SWIS	South West Interconnected System
inc.	including	MW	megawatts	tpa	tonnes per annum
kg	kilograms	MW_e	megawatts sent out	%	percent
kg/yr	kilograms per year				

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 2 September 2009

Attachment 6 to Statement 685

Change to Proposal

Proposal: Bluewaters Power Station, Shire of Collie

Proponent: Griffin Energy Pty Ltd

Change: Increase power generating capacity from 208 megawatts to 217 megawatts.

Key Characteristics Table:

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
General		
Project Purpose:	To produce electricity to supply to the SWIS grid or direct to customers	To produce electricity to supply to the SWIS grid or direct to customers
Construction Period:	Approximately 30 months to commercial operation	Approximately 30 months to commercial operation
Project Life:	Approximately 30 years	Approximately 30 years
Power Plant Type:	Subcritical coal fired power station	Subcritical coal fired power station
Power Generating Capacity:	Up to 208 megawatts	**Up to 217 megawatts**
Plant Thermal Efficiency:	HHV 36.4% - LHV 38.6%	HHV 36.4% - LHV 38.6%
Plant Operation:	Base load operation 24 hours per day, 365 days per year	Base load operation 24 hours per day, 365 days per year
Shutdown Time:	Plant maintenance shutdowns may be scheduled annually	Plant maintenance shutdowns may be scheduled annually
Maximum Facility Footprint (area of power generating unit):	Approximately 5.25ha (actual 1.99ha)	Approximately 5.25ha (actual 1.99ha)
Maximum Total Area (total area of power station plant):	Approximately 15ha (actual 9.83ha)	Approximately 15ha (actual 9.83ha)
Ancillary Infrastructure Includes roads, benching for safe foundations, plant assembly areas, car parks, conveyors and the emergency coal stockpile Contingency coal stockpile Water storage dams associated with the contingency coal stockpile	 Approximately 23.75ha 500,000 tonne capacity 2	 Approximately 23.75ha 500,000 tonne capacity 2
Construction Laydown Envelope	Approximately 18.7ha	Approximately 18.7ha
Plant facilities		
Stacks:	1	1
Height of Stack:	100m	100m
Diameter of Stack:	4.13m	4.13m
Cooling Towers:	1 set	1 set
Liquid Fuel Storage Tanks:	2 x 100,000 litres and 1 x 10,000 litres	2 x 100,000 litres and 1 x 10,000 litres
Boiler:	Balanced draft pulverised coal steam generator matched to steam turbine capacity	Balanced draft pulverised coal steam generator matched to steam turbine capacity

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
Steam Turbine:	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e
Wastewater collection:	Package treatment plant	Package treatment plant
Utilities		
Water Supply:	3.25GL/yr sourced from mine dewatering at Ewington 1	3.25GL/yr sourced from mine dewatering at Ewington 1
Transmission Line Length:	100m up to 3km depending on interconnection point as required by Western Power	100m up to 3km depending on interconnection point as required by Western Power
Emissions		
Noise:	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie
Flue Dust:	47mg/Nm^3; 9.4g/s; 237tpa	47mg/Nm^3; 9.4g/s; 237tpa
Nitrogen Oxides:	500mg/Nm^3; 112.1g/s; 2828tpa	500mg/Nm^3; 112.1g/s; 2828tpa
Sulphur Oxides:	229.9g/s; 5800tpa*	229.9g/s; 5800tpa*
Greenhouse Gases:	1,562,000tpa CO_2 e	1,562,000tpa CO_2 e
Carbon Monoxide:	500mg/m^3; 97g/s; 2444tpa	500mg/m^3; 97g/s; 2444tpa
Volatile Organic Compounds:	33.3kg/yr	33.3kg/yr
PAHs:	6.0kg/yr	6.0kg/yr
Arsenic:	6.8kg/yr	6.8kg/yr
Cadmium:	8.8kg/yr	8.8kg/yr
Chromium compounds:	1.6kg/yr	1.6kg/yr
Lead compounds:	32.2kg/yr	32.2kg/yr
Mercury:	32.2kg/yr	32.2kg/yr
Fluorides:	17,680kg/yr	17,680kg/yr
POPs inc. Dioxins and Furans:	Less than 0.5 grams per year	Less than 0.5 grams per year
Waste		
Ash:	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II
Septage:	Packaged treatment plant	Packaged treatment plant
Saline Water:	1.2GL/yr	1.2GL/yr
Workforce		
Construction:	Approximately 150 personnel at the peak of construction	Approximately 150 personnel at the peak of construction
Operations:	Up to 30 full time operations and maintenance personnel	Up to 30 full time operations and maintenance personnel

*For Bluewaters Power Station Phase I in isolation, emissions of sulphur oxides limited to 320.7g/s; 8091tpa. Once Bluewaters Power Station Phase II is commissioned, emissions of sulphur oxides limited to 229.9g/s; 5800tpa.

Abbreviations

CO_2 e	carbon dioxide equivalents	kg/yr	kilograms per year	MW_e	megawatts sent out
dB(A)	decibels A weighted	LHV	lower heating value	O_2	oxygen
g/s	grams per second	m	metres	pa	per annum
GL/yr	gigalitres per year	mg/Nm^3	milligrams per standard cubic metre	PAHs	polycyclic aromatic hydrocarbons
HHV	higher heating value			POPs	persistent organic pollutants
inc.	including	mg/s	milligrams per second	SWIS	South West Interconnected System
kg	kilograms	Mtpa	million tonnes per annum	tpa	tonnes per annum
		MW	megawatts	%	percent

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 23 October 2009

Attachment 7 to Ministerial Statement 685

Change to Proposal

Proposal: Bluewaters Power Station – Shire of Collie

Proponent: Griffin Power Pty Ltd

Change: Removal of maximum sulphur oxides in emissions and plant thermal efficiency.

Key Characteristics Table:

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
General		
Project Purpose:	To produce electricity to supply to the SWIS grid or direct to customers	To produce electricity to supply to the SWIS grid or direct to customers
Construction Period:	Approximately 30 months to commercial operation	Approximately 30 months to commercial operation
Project Life:	Approximately 30 years	Approximately 30 years
Power Plant Type:	Subcritical coal fired power station	Subcritical coal fired power station
Power Generating Capacity:	Up to 217 megawatts	Up to 217 megawatts
Plant Thermal Efficiency:	HHV 36.4% - LHV 38.6%	**Removed as not environmentally significant**
Plant Operation:	Base load operation 24 hours per day, 365 days per year	Base load operation 24 hours per day, 365 days per year
Shutdown Time:	Plant maintenance shutdowns may be scheduled annually	Plant maintenance shutdowns may be scheduled annually
Maximum Facility Footprint (area of power generating unit):	Approximately 5.25ha (actual 1.99ha)	Approximately 5.25ha (actual 1.99ha)
Maximum Total Area (total area of power station plant):	Approximately 15ha (actual 9.83ha)	Approximately 15ha (actual 9.83ha)
Ancillary Infrastructure Includes roads, benching for safe foundations, plant assembly areas, car parks, conveyors and the emergency coal stockpile Contingency coal stockpile Water storage dams associated with the contingency coal stockpile	 Approximately 23.75ha 500,000 tonne capacity 2	 Approximately 23.75ha 500,000 tonne capacity 2
Construction Laydown Envelope	Approximately 18.7ha	Approximately 18.7ha
Plant facilities		
Stacks:	1	1
Height of Stack:	100m	100m
Diameter of Stack:	4.13m	4.13m
Cooling Towers:	1 set	1 set
Liquid Fuel Storage Tanks:	2 x 100,000 litres and 1 x 10,000 litres	2 x 100,000 litres and 1 x 10,000 litres
Boiler:	Balanced draft pulverised coal steam generator matched to steam turbine capacity	Balanced draft pulverised coal steam generator matched to steam turbine capacity

Element	Description of approved proposal	Description of approved changes to proposal (bolded)
Steam Turbine:	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e	Tandem compound reheat steam turbine with synchronous alternator – 200MW_e
Wastewater collection:	Package treatment plant	Package treatment plant
Utilities		
Water Supply:	3.25GL/yr sourced from mine dewatering at Ewington 1	3.25GL/yr sourced from mine dewatering at Ewington 1
Transmission Line Length:	100m up to 3km depending on interconnection point as required by Western Power	100m up to 3km depending on interconnection point as required by Western Power
Emissions		
Noise:	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie	Less than 60dB(A) at 150m from the plant. Less than 29dB(A) at nearest residence in Collie
Flue Dust:	47mg/Nm^3; 9.4g/s; 237tpa	47mg/Nm^3; 9.4g/s; 237tpa
Nitrogen Oxides:	500mg/Nm^3; 112.1g/s; 2828tpa	500mg/Nm^3; 112.1g/s; 2828tpa
Sulphur Oxides:	229.9g/s; 5800tpa*	**Removed as emissions are regulated under Part V of the Environmental Protection Act 1986**
Greenhouse Gases:	1,562,000tpa CO_2 e	1,562,000tpa CO_2 e
Carbon Monoxide:	500mg/m^3; 97g/s; 2444tpa	500mg/m^3; 97g/s; 2444tpa
Volatile Organic Compounds:	33.3kg/yr	33.3kg/yr
PAHs:	6.0kg/yr	6.0kg/yr
Arsenic:	6.8kg/yr	6.8kg/yr
Cadmium:	8.8kg/yr	8.8kg/yr
Chromium compounds:	1.6kg/yr	1.6kg/yr
Lead compounds:	32.2kg/yr	32.2kg/yr
Mercury:	32.2kg/yr	32.2kg/yr
Fluorides:	17,680kg/yr	17,680kg/yr
POPs inc. Dioxins and Furans:	Less than 0.5 grams per year	Less than 0.5 grams per year
Waste		
Ash:	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II	182,000tpa maximum disposed to the adjacent mines, Ewington I and Ewington II
Septage:	Packaged treatment plant	Packaged treatment plant
Saline Water:	1.2GL/yr	1.2GL/yr
Workforce		
Construction:	Approximately 150 personnel at the peak of construction	Approximately 150 personnel at the peak of construction
Operations:	Up to 30 full time operations and maintenance personnel	Up to 30 full time operations and maintenance personnel

~~*For Bluewaters Power Station Phase I in isolation, emissions of sulphur oxides limited to 320.7g/s; 8091tpa. Once Bluewaters Power Station Phase II is commissioned, emissions of sulphur oxides limited to 229.9g/s; 5800tpa.~~

Abbreviations

CO_2 e	carbon dioxide equivalents
dB(A)	decibels A weighted
g/s	grams per second
GL/yr	gigalitres per year
HHV	higher heating value
inc.	including
kg	kilograms
kg/yr	kilograms per year
LHV	lower heating value
m	metres
mg/Nm^3	milligrams per standard cubic metre
mg/s	milligrams per second
Mtpa	million tonnes per annum
MW	megawatts
MW_e	megawatts sent out
O_2	oxygen
pa	per annum
PAHs	polycyclic aromatic hydrocarbons
POPs	persistent organic pollutants
SWIS	South West Interconnected System
tpa	tonnes per annum
%	percent

Dr Paul Vogel
CHAIRMAN
Environmental Protection Authority
under delegated authority

Approval date: 7 January 2013

NOTICE OF INTERIM IMPLEMENTATION CONDITIONS

section 46A
Environmental Protection Act 1986

Proposal: Bluewaters Power Station Phase I Shire of Collie

Proponent: Bluewaters Power 1 Pty Ltd

Proponent Address: Level 8, 225 St Georges Terrace, Perth WA 6000

Statement to which this notice relates: Statement 685 dated 24 August 2005 and Statement 803 dated 27 August 2009

Pursuant to section 46A(1) of the *Environmental Protection Act 1986,* and in addition to the conditions and procedures of Statement 685 dated 24 August 2005, as amended by Statement 803 dated 27 August 2009, the implementation of the above proposal is subject to the Interim Implementation Conditions set out in this Notice. These Interim Implementation Conditions are to have effect until a further statement is published under section 45(5) as applied by section 46(8) of the *Environmental Protection Act 1986.*

1 Metal Emissions Monitoring

1-1 The proponent shall ensure that air emissions from the proposal are minimised and ensure that high quality and accurate data is available to model and verify ambient air quality.

1-2 Within 4 weeks of the date of this statement the proponent shall prepare and submit a Metal Emissions Monitoring Plan to the CEO. The Metal Emissions Monitoring Plan shall:

(1) describe the procedure for sampling and analysis of stack emissions of the following pollutants: Arsenic, Cadmium, Total Chromium, Chromium III, Chromium VI, Mercury and particulates;

(2) describe the procedures for sampling and analysis of a composite coal sample that represents the coal used during stack sampling in 1-2(1). The following parameters should be measured: Arsenic, Cadmium, Total Chromium, Chromium III, Chromium VI and Mercury.

(3) detail how the data obtained in 1-2(1) and 1-2(2) will be validated through the use of duplicate, blind, blank and reference samples.

(4) outline a method to determine the suitability and limitations of using the CEMS particulate monitor as a surrogate for metal emissions, by correlating data from the metal emissions sampling with data from the CEMS particulate monitor.

(5) outline the format for reporting the data obtained.

1-3 After receiving notice in writing from the CEO that the Metal Emissions Monitoring Plan satisfies the requirements of condition 1-2, the proponent shall undertake the first round of metal emissions monitoring from 1 July 2016. Monitoring shall be repeated at monthly intervals and in accordance with the requirements of the Metal Emissions Monitoring Plan.

1-4 On completion of each monthly metal emissions monitoring the proponent shall report to the CEO on the following:

(1) completion of the metal emissions monitoring in accordance with the Metal Emissions Monitoring Plan; and

(2) the results of the metal emissions monitoring.

1-5 The proponent shall provide the results of monitoring required by condition 1-3 to the CEO within four weeks of the monitoring and until such time when the CEO has confirmed by notice in writing that monitoring is no longer required.

[Signed 21 December 2015]

HON ALBERT JACOB MLA
MINISTER FOR ENVIRONMENT; HERITAGE