P R O J E C T A P P L I C A T I O N

Proposed Peaking Power Plant at Buronga, NSW

Prepared for

International Power (Australia) Pty Ltd

6 November 2006

43177456

URS

International Power

Project Manager: Chris Jack
Principal

Project Director: David Chubb
Principal

URS Australia Pty Ltd
Level 3, 116 Miller Street
North Sydney, NSW 2060 Australia
Tel: 61 2 8925 5500
Fax: 61 2 8925 5555

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This is a Preliminary Environmental Assessment Report prepared under the provisions of Part 3A of the *Environmental Planning and Assessment (EP&A) Act 1979* for the development of a distillate fired peaking power station facility approximately 10km northeast of Buronga in south-western NSW. The purpose of this document is to provide sufficient information on the proposed project and its potential environmental impacts to allow the NSW Department of Planning to issue environmental assessment requirements for a project approval.

The project proponent is International Power (Australia) Pty Ltd (IPRA) - a wholly owned subsidiary of International Power plc, a UK-based independent power generation and operation company. Since establishing in Australia in 1996, IPRA has invested in excess of A$5 billion and owns and operates power plants in Victoria, South Australia and Western Australia together with other energy-related businesses.

The project proposal is in response to several reports issued since 2002 by TransGrid entitled "Supply to South West New South Wales". These reports highlighted electricity transmission system and sub-system constraints within this region which impact upon the ability to supply the total load in the area west of Yass. Further to this, the TransGrid Buronga node plays a key interconnection role in the NSW/South Australia/Victoria interconnected HV grid system and management of both the south west NSW system and the attendant National Electricity Market operation can become problematic under certain system load profiles and transient conditions. The Buronga 120MW power station (Buronga Peaking Power Plant) is proposed by IPRA as a generation solution to ensure continuing regional and inter-regional electricity transmission.

The proposed Buronga facility comprises three separate nominally 40MW generating units operating in open cycle mode and capable of running individually or in conjunction, together providing a high level of reliable generation capacity embedded within the region. The power station will utilise distillate-fired generators with dual fuel capability in the event that sufficient natural gas supplies become available in the future.

It is anticipated that the Buronga Peaking Power Plant would operate as a "peaking plant", generating on an as-required, intermittent basis for a total maximum period of up to 10 % of any year.

In lieu of taking water from available potable supplies, IPRA will (if technically feasible) install water treatment facilities capable of treating effluent from the Buronga sewerage treatment works for process use in the plant. This is presently under investigation.

IPRA is committed to meeting its environmental and community obligations throughout this process and undertaking a consultation program with stakeholders during the environmental assessment process.

The project would take approximately 6 months to build at an estimated cost of $50 million.

1.1 Project Overview

This is a Preliminary Environmental Assessment Report prepared under the provisions of Part 3A of the *Environmental Planning and Assessment (EP&A) Act 1979* for the development of a distillate fired power station facility at a site near Buronga in south west NSW. This document has been prepared by URS on behalf of International Power (Australia) Pty Ltd (IPRA).

On 26 September 2006, IPRA advised the Department of Planning of their intention to seek approval under Part 3A of the Act and URS, and have sought confirmation that State Environmental Planning Policy 2005 (Major Projects) applies to the project.

The purpose of this document is to provide sufficient information on the proposed project and its potential environmental impacts to allow the NSW Department of Planning (DoP) to issue environmental assessment requirements for a project approval of the Buronga Peaking Power Station Plant, in accordance with Part 3A of the EP&A Act. This document, therefore, also acts as a formal request for the environmental assessment requirements.

This Project Outline and Preliminary Environmental Assessment has been structured to provide general environmental, cultural and socio-economic information about the project context and the site under consideration Further information about the development will be provided in the form of a detailed. project application.

The proposal comprises the development of a power station facility and associated infrastructure at a site adjacent to the TransGrid Arumpo Road substation approximately 10km northeast of Buronga in south western NSW. The location of the site is shown in **Figure 1-1**. The proposed facility would have generation capacity up to 120MW, comprising three separate nominally 40MW open cycle generating units capable of operating individually or in conjunction, together providing a high level of reliable generation capacity embedded within the region.

The power station will utilise distillate-fired generators with dual fuel capability in the event that sufficient natural gas supplies become available in the future. It is anticipated that the Buronga plant would operate in a “peaking role”, that is, on an as-required, intermittent basis for a total maximum period of up to 10 % of any year. Sufficient distillate would be stored on site to allow up to 72 hours continuous operation with replenishment stocks being sourced from the local regional centre at Buronga.

IPRA has agreed land lease arrangements with the leaseholder of pastoral land controlled by the Western Lands Commissioner, and is in the process of finalising this documentation.

The project would take approximately 6 months to build at an estimated cost of $50 million.

Source:

Client: INTERNATIONAL POWER (AUSTRALIA) PTY LTD	Project: PRELIMINARY ENVIRONMENTAL ASSESSMENT - BURONGA POWER STATION	Title: **SITE LOCATION**
URS	Drawn: BH; Approved: CJ; Date: 31/10/2006; Job No: **43177456**; File No: 43177456.003.WOR	Figure: **1-1**

1.2 Proponent

The proponent[1] is International Power (Australia) Pty Ltd (IPRA), a wholly owned subsidiary of International Power plc, a UK-based independent power generation and operation company. International Power plc has interests in 37 power stations in 18 countries around the world and is listed on both the London and New York Stock Exchanges and has a current market capitalisation in excess of A$11bn. Further information on International Power plc and IPRA is available on its website www.ipplc.com.

Since establishing in Australia in 1996, IPRA has invested in excess of A$5 billion and focused on becoming a leading player in the energy industry. The company owns and operates more than 3600MW of renewable, gas-fired and brown coal-fired generating plants in Victoria, South Australia and Western Australia. Its interests also extend across energy retailing (Energy Australia) and the (SEAGas) gas pipeline between Victoria and South Australia as shown in Table 1-1.

Table 1-1

IPRA Australian Energy Assets

Asset	Fuel / Type	Gross Capacity MW	Net capacity MW
Hazelwood, Victoria	Coal	1,600	1,500
Loy Yang B Power Station, Victoria	Coal	1,000	700
Synergen Peaking Units, South Australia	Gas/Distillate	360	360
Pelican Point Power Station, South Australia	Gas (CCGT)	487	487
Canunda Wind Farm, South Australia	Wind/renewable	46	46
Kwinana Power Station, Western Australia	Gas (CCGT)	118	58
SEA Gas underground pipeline	n/a	n/a	n/a
Energy Australia	n/a	n/a	n/a
Total		**3,611**	**3,149**

IPRA employs some 1000 Australians across its national business and is an innovative and proactive company, highly regarded in the industry as a project developer and as an asset manager.

1.3 Project Need and Justification

TransGrid released its report “Supply to South West NSW” in March 2003. This report outlined HV transmission system constraint scenarios, both within regional NSW and on interstate connectors. Inter alia, TransGrid sought further comments on generation options having only received one such response to a 2002 report.

TransGrid (2003) described the region under consideration (refer **Figure 1-2**) as:

[1] IPRA or a special purpose related body corporate

> *"The area considered in this document lies to the south and west of Tumbarumba, Tumut, Yass, Young and West Wyalong. It extends to Wentworth and Broken Hill in the west and the Victorian border in the south. It has a population of around 300,000. The area electrical load is characterised primarily by urban residential loads and commercial/light industrial loads in the main population centres and rural loads in surrounding areas, together with larger industrial loads at Broken Hill and near Albury."*

At that time, a NSW/South Australia HV connector ("SANI") from TransGrid's Buronga substation was mooted. This project did not eventuate but, instead, a connector from Red Cliffs (Victoria) into South Australia ("MurrayLink") was subsequently built, primarily to moderate national grid import constraints into South Australia. This alternative connector however does not solve the problems in south west NSW under certain local demand or import/export conditions on the NSW/SA/Victoria interconnected HV grid system.

It is of note that TransGrid (2003) also stated:

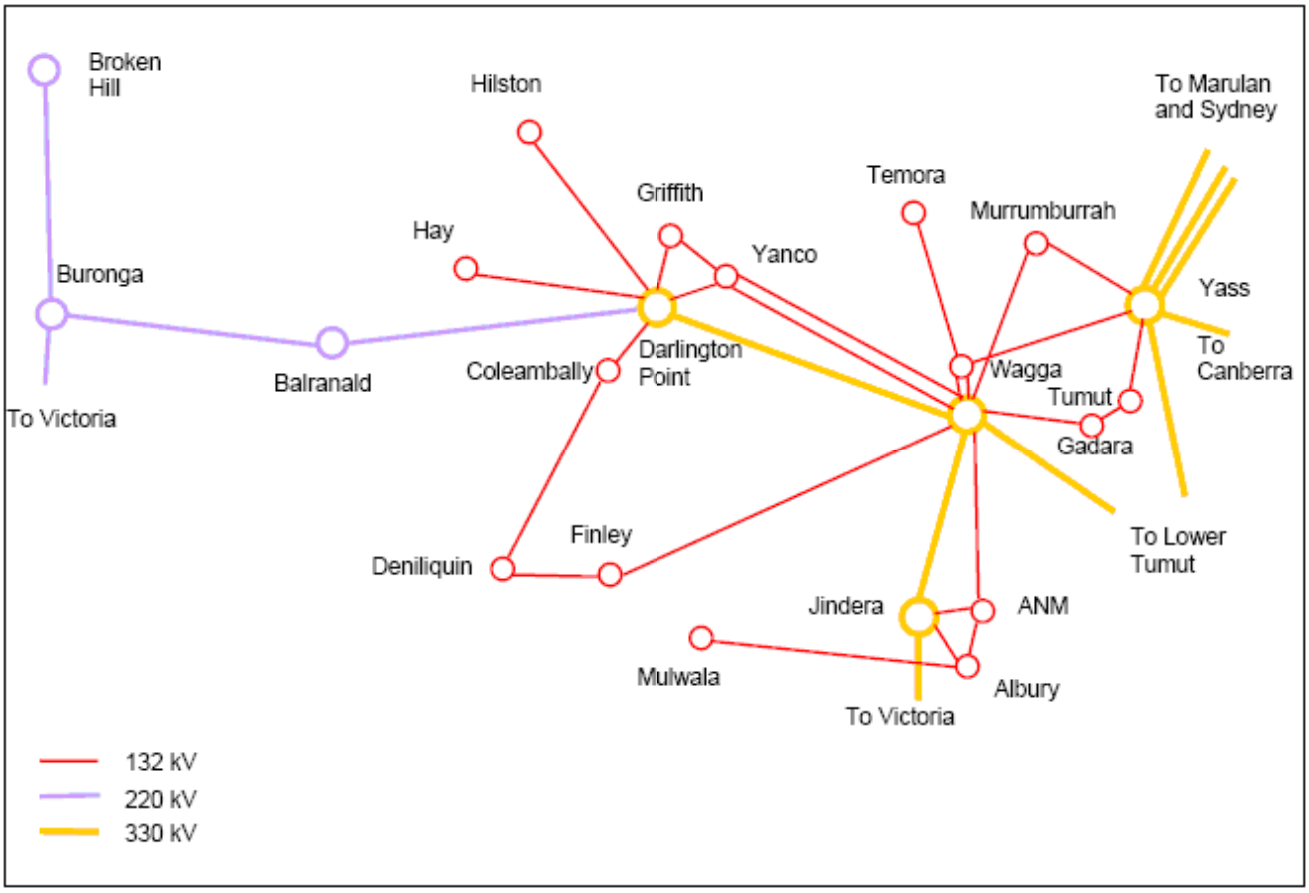
> *"Continuing growth of NSW loads in this region, coupled with a requirement for power transfer from Snowy to Victoria, will exacerbate the potential overloading of lines and transformers. Unless new generating developments can be made in Victoria it is expected that the frequency of high power flows through the Wagga area will rise".*

The area around Mildura is a significant load centre with growing urban and light industry demand together with its traditional horticultural and viticulture activities. The Buronga 120MW power station (Buronga Peaking Power Plant) proposed by IPRA will provide a local generation solution to underpin regional requirements and facilitate reliable inter-regional electricity transmission performance.

IPRA's Buronga Peaking Power Plant proposal is to install a nominal capacity of 120MW comprising three 40MW open cycle distillate fired generating units with dual fuel capability and therefore able to be converted to gas firing should sufficient natural gas become commercially available in the future. These units will be capable of operating individually or in conjunction, together providing a high level of reliable generation capacity embedded within the region. This multi-unit concept provides a transmission support reliability factor in excess of 99% on an annual basis.

It is anticipated that the Buronga Peaking Power Plant would initially operate as "peaking" plant - that is, generating power intermittently on an as-required basis for a total maximum period of up to 10 % of any year, but with continued load growth, play an increasing role in local network support. This network support capability would facilitate TransGrid deferring significant capital expenditure (on line and transformer upgrades and/or voltage control equipment) across its system from Buronga to Darlington Point and possibly extending to Wagga.

The multi-unit Buronga facility concept also offers significant regional reinforcement in the event of extensive transmission system problems. The facility would be capable of providing the full 120MW of capacity until such time as the transmission system can be stabilised, at which point Buronga would resume its normal peaking role.



Source: TRANSGRID

Client: INTERNATIONAL POWER (AUSTRALIA) PTY LTD	Project: PRELIMINARY ENVIRONMENTAL ASSESSMENT - BURONGA POWER STATION	Title: **TRANSGRID SOUTH WEST TRANSMISSION SYSTEM SCHEMATIC**
URS	Drawn: BH; Approved: CJ; Date: 31/10/2006	Figure: **1-2**
	Job No: **43177456**; File No: 43177456.004.WOR	

1.4 Project Benefits

The location has been chosen to best meet IPRA's non-commercial project objectives, these being to:

- provide solutions to the emerging TransGrid 220kV and 330kV transmission system constraint scenarios;
- minimise (visual, air emission, noise and traffic) community impacts;
- optimise connectability to the TransGrid electricity system;
- optimise flexibility for TransGrid in managing its regional HV grid systems;
- contribute to inter/regional supply security and meet load growth through connection to the National Electricity Market;
- in the absence of natural gas, be distillate fuelled but designed for and capable of conversion to gas firing should sufficient natural gas supplies become available in the future;
- comprise multiple generation units to ensure transmission reliability;
- be sized to operate in the short to mid term as peaking plant so as to reflect the TransGrid constraint scenario need; and
- include, wherever possible, recycling of consumables, particularly water;

The 120MW Buronga Peaking Power Plant as proposed by IPRA is the most cost efficient and effective generation solution for constraint scenarios identified by TransGrid whilst also meeting IPRA's broader environmental and community-focused objectives.

The Buronga Peaking Power Plant is being proposed to provide network support to TransGrid's high voltage transmission network by providing local power generation capability during periods of peak demand at a critical node in the NSW/SA/Victorian interconnect HV grid system. The facility will provide a highly resource-efficient solution for the identified network limitations and will defer significant capital expenditure to otherwise augment or reinforce the respective local transmission networks.

Further to the above objectives, IPRA has initiated a number of actions, including:

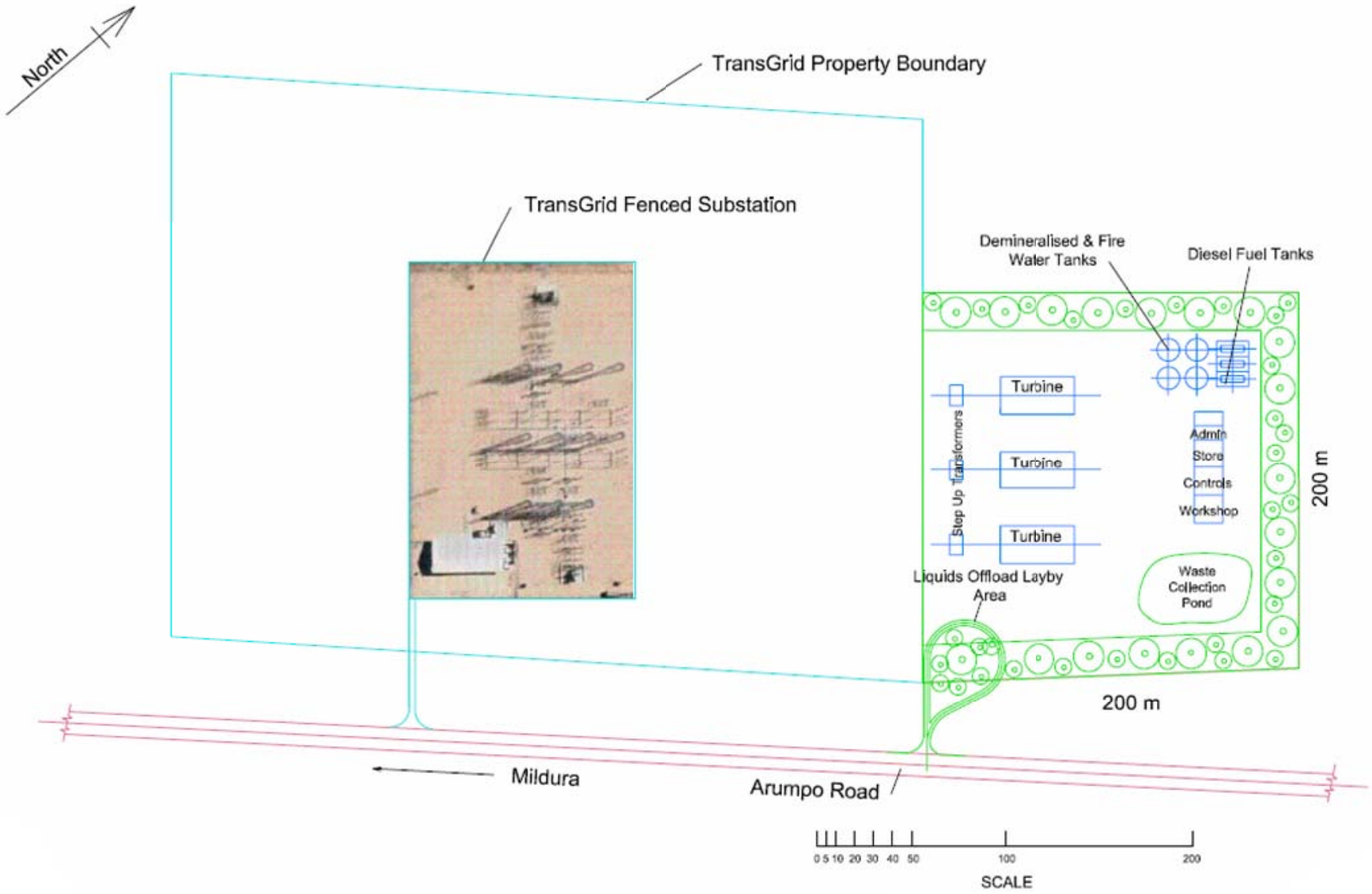
- securing land for the power station;
- commencing preliminary, environmental, heritage and other studies;
- commencing preliminary design and investigating sourcing of suitable generating plant;
- initiating a request for grid connection studies by TransGrid; and
- initiating discussions with local councils with regard to the use of recycled effluent water at the plant.

1.5 Location

The proposed site for the Buronga Peaking Power Plant is adjacent to the Arumpo Road approximately 10km northeast of Buronga in south western NSW (refer **Figure 1-1**). The site is currently part of a pastoral lease and is immediately adjacent to an existing TransGrid-owned substation (refer **Figure 1-3**) and optimises connection flexibility to the 220kV substation bus. The proposed site is located on Lot 2, DP 1037845 (formerly Lot 4, DP 802730). The facility would occupy an area of approximately 4.0 ha on a lot of 200 metres by 200 metres.

IPRA has agreed land lease arrangements with the leaseholder of pastoral land controlled by the Western Lands Commissioner and is in the process of finalising this documentation.

The selection of the site, some 10km from Buronga, is considered to be a major factor in mitigating the overall community and environmental (visual, noise and air emission) impacts on the local community. The closest residence to the proposed site is approximately 1km distant. Land procurement arrangements include sufficient space for extensive perimeter landscaping and screening of the facility.



Client: INTERNATIONAL POWER (AUSTRALIA) PTY LTD	Project: PRELIMINARY ENVIRONMENTAL ASSESSMENT - BURONGA POWER STATION		Title: **PROPOSED BURONGA POWER STATION FACILITY**
URS	Drawn: BH	Approved: NB	Date: 31/10/2006
	Job No: **43177456**	File No: 43177456.005.WOR	Figure: **1-3**

Source: INTERNATIONAL POWER

IPRA proposes to construct and operate a peaking power station at Buronga with a nominal capacity of 120MW. Operating in open cycle mode, this would comprise three 40MW distillate-fired generating units with dual fuel capability in the event that natural gas supplies become available in the future.

These units will be capable of operating individually or in conjunction, together providing a high level of reliable generation capacity embedded within the region. This multi-unit concept would result in a reliability factor in excess of 99% on an annual basis.

It is anticipated that the Buronga plant would operate in a "peaking role", that is, on an as-required, intermittent basis for a total maximum period of up to 10 % of any year. Sufficient distillate would be stored on site to allow up to 72 hours continuous operation with replenishment stocks being sourced from the local regional centre at Buronga.

The generating units would be of proven technology, comprising small compact generators enclosed in soundproof enclosures. They will be of the "fast start" type and able to provide "black start" capability for re-energising TransGrid's local regional network in the event of a major system collapse.

IPRA has commenced plant layout and sizing studies and has initiated negotiations for plant procurement.

The operating regime for the power station in the short to mid term peaking role is anticipated to be:

- averaging 200 operating hours per year per unit;
- producing up to 1000MWh per year per unit;
- distillate consumption of up to approximately 1200 tonnes per annum total; and
- water consumption of up to approximately 650kl per annum.

An indicative photograph of the type of plant is provided in **Plate 2-1**.

The facility would be operated as a zero wastewater discharge site.

In lieu of taking water from available potable supplies, IPRA is investigating the technical feasibility of installing water treatment facilities capable of treating effluent from the Buronga sewerage treatment works for process use in the plant.

Source: International Power (Australia), 2006, Snuggery Power Station

Plate 2-1 – Indicative Power Station Appearance

This Project Application has been prepared in order to obtain environmental assessment requirements for the Peaking Power Plant project from the Department of Planning. The environmental assessment for the Peaking Power Plant will be prepared in accordance with the environmental assessment requirements, as required the EP&A Act.

The general locality is subject to the legislative controls of Commonwealth, State and local planning and environmental frameworks. The following section discusses the site within the context of these legislative and planning provisions.

3.1 Commonwealth Legislation

Part 3 of the Environment Protection and Biodiversity Conservation (EPBC) Act 1999 (Commonwealth) states that an action which has, will have or is likely to have a significant impact on a matter of national environmental significance may not be undertaken without prior approval of the Commonwealth Minister for Environment and Heritage, as provided for under the provisions of Part 9 of the EPBC Act. The Act provides the following as matters of national environmental significance for which Ministerial approval is required:

- *World heritage properties;*
- *Wetlands of international significance (including Ramsar wetlands);*
- *Listed threatened species and communities;*
- *Listed migratory species protected under international agreements (CAMBA and JAMBA);*
- *Protection of the e*nvironment from nuclear actions; and
- *Marine environment.*

A search of the Commonwealth Department of the Environment and Heritage EPBC dataset indicates that whilst there are no World Heritage, National Heritage or Wetlands of International Significance within the immediate locality, the potential exists for the presence of a threatened ecological community and several threatened species and migratory species within two kilometres of the site.

The area surrounding the proposed facility is rural and agricultural land. It is anticipated that the environmental assessment of the Peaking Power Plant would indicate that the project would have minimal or no impact on the local area and, hence, would not be a controlled action under the EPBC Act. It is therefore anticipated that it would not require the approval of the Commonwealth Minister for Environment and Heritage. However, further studies would confirm this.

3.2 State Legislation

3.2.1 Environmental Planning and Assessment Act 1979

The *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (the Regulation) provide the framework for the assessment and approval of proposed developments in NSW.

The proposed development of the subject site for the purpose of a diesel power station falls under the provisions of Part 3A of the Act. Part 3A of the EP&A Act provides processes for the assessment of development applications which are considered to be a "Major Project" as declared by a State Environmental Planning Policy (SEPP), or by order of the Minister in the Government Gazette.

Part 3A Major Projects

It is noted that the Minister cannot approve the development if it is prohibited under a Local Environmental Plan, Regional Environmental Plan or State Environmental Planning Policy (Section 75J(3)(b) of the EP&A Act). The site of the proposed development falls within the *Wentworth Local Environmental Plan 1993* and is understood to be zoned as 1(a1) **Rural** where energy generation activities are permissible with development consent from the relevant authority. Hence, the Buronga Peaking Power Plant would not be prohibited under the Plan.

3.2.2 Other Relevant Environmental Acts, Regulations and Policies

Protection of the Environment Operations Act 1997

The *Protection of the Environment Operations Act 1997* (POEO Act) relates to pollution management and waste disposal in NSW. The POEO Act also establishes the environmental licensing of certain activities, which are listed in Schedule 1 of the Act. The proposed activities at the proposed Peaking Power Plant which are scheduled (and, therefore, trigger the requirement for a licence) comprise:

- *Electricity generating works (including associated water storage, ash and waste management facilities) that:*

  (1) supply or are capable of supplying more than 30 megawatts of electrical power from energy sources (including coal, gas, bio-material or hydro-electric stations), but not including from solar powered generators.

Consequently, an Environment Protection Licence issued by the Environment Protection Authority (part of the Department of Environment and Conservation (DEC) will be required under the provisions of the POEO Act.

During the Part 3A process, this Project Application would be forwarded to the DEC for comment. IPRA would also consult with the DEC in order to ensure that the proposed development is designed and approved in accordance with DEC licensing requirements.

Other Acts

While the EP&A Act provides the framework for the planning and development approvals system within NSW, there are several other Acts and Regulations which must be considered. While the Integrated Development provisions do not apply to Part 3A Major Projects the provisions of these Acts still need consideration in the preparation of the Project Application and associated Environmental Assessment.

While the EP&A Act provides the framework for the planning and development approvals system within NSW, there may be a number of other Acts and Regulations of relevance to the Peaking Power Plant project. These Acts and Regulations would be identified and considered during the environmental assessment of the Peaking Power Plant project.

It is noted that Part 3A of the EP&A Act removes the need to obtain some approvals under these other Acts and Regulations.

3.2.3 State Environmental Planning Policies

There are several State Environmental Planning Policies (SEPPs) whose provisions may relate to the proposed Peaking Power Plant project other than the State Environmental Planning Policy (Major Projects) discussed above.

The project would be assessed within the context of applicable SEPPs as determined by the DoP.

3.2.4 Regional Environmental Plans

From the information available to date it is considered that there no any Regional Environmental Plans that have the potential to impact on this proposed project.

3.3 Local Legislation

As noted above, the site of the proposed development is located within the Wentworth Shire Council local government area and is subject to *Wentworth Local Environmental Plan 1993*. Investigation to date has not identified any other local planning controls that have the potential to effect the project.

This section provides a preliminary assessment of environmental impacts and matters for further consideration. The matters referred to in this section comprise *a preliminary assessment identifying the likely environmental issues*, in accordance with the Draft Guidelines *Steps in the Assessment and Approval of Major Projects under Part 3A* prepared by the DoP.

All potential environmental impacts associated with the proposed Project will be mitigated and managed through the design process and in accordance with a Site Environmental Management Plan for both the construction and operational phases.

4.1 Land use and topography

The proposed project site is adjacent to the Arumpo Road approximately 10km northeast of Buronga. The site is adjacent the existing 220kV TransGrid-owned substation. Current land use is pastoral land. The proposed site is considered level.

The facility would occupy an area of approximately 4.0ha on a plot of 200metres by 200 metres.

4.2 Soils and Geology

The nature of the existing soils will be determined during the assessment including their suitability for the proposed structural loads, their erodibility, texture, rockiness, salinity and erosion potential. These qualities will be assessed to assist in developing the design of the proposed facility and control measures required during construction to mitigate adverse environmental impacts.

4.3 Noise Assessment

The proposed Buronga Peaking Power Plant includes the construction and operation of plant and equipment such as turbines, pumps and associated machinery. The generation equipment is located in acoustically lined chambers with external flues. The construction and operation of the plant and equipment, as well as infrequent vehicular traffic movement to and from the site when in operation, is likely to generate relatively low levels of noise.

It is anticipated that the Buronga Peaking Power Plant would operate on an as-required intermittent basis for a total maximum period of up to 10 % of any year. The distance between the proposed location of the Peaking Power Plant and sensitive receiver locations, the nearest being one residence approximately 1km south with a small number of other residences and the Rodeo Ground approximately 3km to the southwest. Given this, it is considered that there would be no adverse impact on ambient noise level outside of the site associated with the Peaking Power Plant project. The nearest significant grouping of residences is approximately 5km south at Gol Gol North.

The potential noise impacts of the proposed development will be further investigated during the assessment process.

4.4 Air Quality and Greenhouse Gas Emissions

When operating, the Peaking Power Plant would generate air emissions, although the impacts on local and regional air quality would be mitigated through incorporating proven commercially available emissions control technology for the type and size of the gas turbines.

All power stations emit the products of combustion through an exhaust stack, however emissions from diesel turbines are significantly lower than conventional coal fired stations. Typical power station stack emissions include oxygen, nitrogen, carbon dioxide and nitrogen oxides and trace levels of carbon monoxide and sulphur dioxide. An assessment will be carried out as part of the Environmental Assessment to model the dispersion of emissions at the preferred site.

Volatile organic compounds would be generated from the turbines (when in operation) and from breathing discharges from the diesel storage tanks. The extent of this impact and potential mitigation measures will be quantified during the assessment process.

The nearest residence is 1km south with a small number of other residences and the Rodeo Ground approximately 3km to the southwest of the site. The nearest significant grouping of residences is at Gol Gol North approximately 5km south of the site. Given the distance between these two areas, odours from the operation of the Peaking Power Plant are not anticipated to impact on the amenity of these areas. It is not proposed to undertake detailed modelling of potential odour emissions.

However, an air quality assessment will be undertaken together with an evaluation of the anticipated quality and quantity of emissions to the atmosphere as a result of the construction and operation of the proposed Peaking Power Plant. The extent of this impact and potential mitigation measures will be identified during the assessment process. An assessment of greenhouse emissions will be undertaken. However, as the operation of the plant will be on an as-required intermittent basis for a total maximum period of up to 10% of any year, the amount of emissions are expected to be minor in comparison with traditional energy generation alternatives.

The Environmental Assessment will consider the potential greenhouse emissions generated by the project and compare these to average emission intensity for electricity generation in NSW.

4.5 Traffic and Transport

The proposed site is in close proximity to Arumpo Road. The operation of the Peaking Power Plant would require a very small number of transport movements directly off the Arumpo Road. It is unlikely that there would be any significant transport impacts during the operational phase of the Project.

There would be a temporary increase in traffic movements due to construction traffic during the construction stages of the project. These traffic movements are considered to be insignificant in terms of typical traffic movements on Arumpo Road in this location.

An assessment of the potential traffic generated by the construction and operation of the development will be carried out as part of the Environmental Assessment. Once the potential impacts from the

development on the local road network are understood, appropriate mitigation measures will be suggested to address these impacts.

4.6 Visual Assessment

The Peaking Power Plant would be visible from neighbouring lands. However, it should be noted that such views will be within the context of the existing adjoining TransGrid substation.

Whilst the design is yet to determine with any degree of detail the height and bulk of the buildings and structures, tree planting and other design measures, including colour schemes and choice of building materials, will reduce the visibility of the structures proposed.

The extent of this impact on the existing visual character and quality of the surrounding area together with potential mitigation measures will be addressed during the assessment process.

4.7 Risk and Hazard Analysis

The operation of the Buronga Peaking Power Plant may result in the potential for localised risks and hazards. IPRA intends to carry out hazard identification for the project and a process hazard analyses will be completed during the design stage. A quantitative risk assessment for the Peaking Power Plant will be conducted in accordance with Hazardous Industry Planning Advisory Paper No. 4 (Department of Urban Affairs and Planning 1993). Specific attention will be given to mitigation of risks on the health and safety of the workforce and local community.

These risks and hazards would be considered in the assessment of the Peaking Power Plant project in accordance with the provisions of *State Environmental Planning Policy 33 – Hazardous and Offensive Development*. It is anticipated the assessment will assist in identifying the scope and nature of control measures including emergency and fire response plans, fire and rescue training and natural disaster contingency plans.

A preliminary hazard analysis (PHA) will be undertaken as part of the Environmental Assessment, in accordance with the requirements of SEPP 33.

4.8 Water

During the construction and operation of phases of the development, surface water runoff from the site would have the potential to impact surrounding water bodies. An assessment of potential water quality and flooding issues will be carried out for the site. Consultation would be carried out with the Wentworth Shire Council and DNR to ensure that the proposed development complied with relevant guidelines and legislation. Mitigation measures will be recommended to address any potential impacts identified on surrounding water bodies.

The Peaking Power Plant will have relatively small process water requirements for power generation as the diesel turbines will be operated in open cycle mode**.** Approximately 650kL of water per annum would

be required. Water may also be required for inlet air cooling (to optimise hot weather operational efficiency) and control of air emissions (for environmental compliance).

In lieu of taking water from available potable supplies, IPRA is investigating the technical feasibility of installing water treatment facilities capable of treating effluent from the Buronga sewerage treatment works for process use in the plant. Initial investigations indicate that there is sufficient effluent available to meet all plant process requirements.

As part of the studies for the Environmental Assessment, IPRA will investigate both the technical feasibility of utilising recycled water as well as maximising the recycling of water on-site.

The facility would be operated as a zero wastewater discharge site. An assessment of water needs and the potential to meet those needs through rainwater/stormwater harvesting and groundwater sources will be examined in detail during the assessment including the potential impacts of groundwater abstraction on surrounding groundwater users. Management strategies will be identified to monitor and mitigate and potential impacts, including in relation to stormwater and wastewater retention, resulting from construction and operation of the proposed Project.

4.9 Waste

The Peaking Power Plant would not generate significant quantities of waste during operation. Small quantities of construction wastes would be recycled, wherever practicable, or disposed of at appropriate waste facilities.

4.10 Heritage

The Peaking Power Plant would be constructed and operated on land that has been previously cleared for agricultural purposes. Whilst the likelihood for items of Aboriginal heritage significance to be present is considered to be low, a cultural heritage study will be undertaken for the proposed site and immediate surrounds. It is anticipated that there would not be any impacts on items of Aboriginal or non-Aboriginal heritage significance.

4.11 Flora and Fauna

The Peaking Power Plant would be constructed and operated within lands previously cleared for agriculture and currently used as pastoral land. Preliminary database investigations to date have not identified any known or likely threatened animal or plant species on the proposed Project site, however 12 threatened species and seven migratory species are known in the broader locality.

The existence of isolated but significant tracts of native bushland in the locality, some managed as State Conservation Areas and Nature Reserves, as well as water bodies such as Queens Lake, have the potential to provide habitat for vulnerable or endangered species as well as many other native and exotic species. The current state of the proposed Project site as pastoral land provides limited habitat value in comparison to surrounding scrubland. It is anticipated therefore that there would not be any significant impacts on flora or fauna as a result of this proposal.

The extent of impact and potential mitigation measures will be quantified through further site investigation during the assessment process.

4.12 Social and Economic

The Peaking Power Plant would be likely to have positive impacts on the existing social and economic environment of the Wentworth Shire and the local area. The construction phase would involve expenditure of a significant proportion of the estimated total project cost on local goods and services and generate associated employment. The operation of the plant would generate, albeit at a lower level, ongoing expenditure and employment opportunities for local communities.

The assessment will include a social impact analysis inclusive of the potential effect of the proposed Project on local and regional industries, employment, infrastructure and demography. An economic impact assessment will be undertaken to assist in assessing the economic viability of the Project in terms of its economic attributes and benefits to the surrounding communities and region with mitigation measures identified where necessary.

4.13 Stakeholder Consultation

IPRA will consult with all relevant stakeholders, including government agencies and the community as part of the environmental assessment process for the proposal.

IPRA proposes to construct a distillate fired Peaking Power Plant adjacent to the existing TransGrid 220kV substation on a 4 hectare site approximately 10 km northeast of Buronga in NSW. The proposed plant will assist in meeting critical peak demand in the regional and inter-regional electricity grid and, as such, the operation of the proposed facility over the short to medium term would be intermittent.

This document acts as a formal request for the Department of Planning to issue environmental assessment requirements for the proposal. The preliminary environmental assessment of the proposal outlined in this document indicates that, given the relatively remote location of the proposed facility, the key environmental issues associated with the proposal comprise potential impacts on air quality, visual amenity and risks and hazards. These issues would be assessed in detail as part of the environmental assessment of the proposal. Other environmental issues are not considered to be significant and will not require detailed assessment.

Upon receipt of the Environmental Assessment Requirements, IPRA will prepare an environmental assessment and submit the assessment as part of the Project Application for approval to construct and operate the proposed Peaking Power Plant.