

# ***Bayswater Turbine Efficiency Upgrade***

*Critical State Significant  
Infrastructure Assessment  
(CSSI 9234)*



November 2018

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### **Cover photo**

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# Glossary

Abbreviation	Definition
CIV	Capital Investment Value
CIP	Community Involvement Plan
Consent	Development Consent
Council	Muswellbrook Shire Council
Department	Department of Planning and Environment
DPI	Department of Primary industries
EIS	Environmental Impact Statement
EPA	Environment Protection Authority
EP&A Act	<i>Environmental Planning and Assessment Act 1979</i>
EP&A Regulation	<i>Environmental Planning and Assessment Regulation 2000</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
EPI	Environmental Planning Instrument
EPL	Environment Protection Licence
ESD	Ecologically Sustainable Development
FRNSW	Fire and Rescue NSW
LEP	Local Environmental Plan
Minister	Minister for Planning
OEH	Office of Environment and Heritage
RMS	Roads and Maritime Services
RTS	Response to Submissions
SEARs	Secretary's Environmental Assessment Requirements
Secretary	Secretary of the Department of Planning and Environment
SEPP	State Environmental Planning Policy
SRD SEPP	<i>State Environmental Planning Policy (State and Regional Development) 2011</i>
SSI	State Significant Infrastructure



# Executive Summary

## Background

AGL Macquarie Pty Limited (AGL) owns and operates the Bayswater Power Station near Muswellbrook in the Hunter Valley. It is Australia's second largest coal-fired power station with a generating capacity of 2,640 megawatts (MW) and produces approximately 15,000 GWh of electricity a year, which is enough to power two million homes.

The power station was commissioned in 1985, and the existing turbines in each of the four generating units now are old and inefficient. To ensure the generating units continue to operate reliably until the power station's scheduled closure in 2035, AGL proposes to replace the existing turbines with more efficient turbines.

To minimise any disruption to operations, the turbines in each generating unit would be replaced progressively over four years during scheduled maintenance shutdowns at the power station, with the first replacement to start in February 2019. All four replacements would be completed prior to the scheduled closure of the adjoining Liddell Power Station in 2022.

## Critical State Significant Infrastructure

On 1 March 2018, the Minister for Planning declared the project to be Critical State Significant Infrastructure (CSSI) under section 5.13 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) because it would strengthen the energy security and reliability of the east coast electricity market. Consequently, the Minister for Planning is the approval authority for the project.

## Engagement

The Department exhibited the application from 18 July 2018 until 15 August 2018 and received 54 submissions. This included 5 submissions from government agencies, 6 from special interest groups and 43 from the general public.

None of the government agencies objected to the project. However, Muswellbrook Shire Council said AGL should be required to modernise the existing consent for the power station, which was granted by Council in 1980, and provide a clear plan for the rehabilitation of the site following the scheduled closure of the power station in 2035.

While the Department supports the proper rehabilitation of the site following the scheduled closure of the power station, it has to assess the turbine upgrade application on its merits. This application deals only with the replacement of the existing turbines and use of the new turbines, and does not relate to the ongoing operation of the rest of the power station or the rehabilitation of the site.

Consequently, it would be an impermissible use of the powers in the EP&A Act to try to regulate the operation of the whole power station or rehabilitation of the site through an application that is seeking approval for a minor upgrade to the power station. It would also be impermissible to require AGL to submit a new development application to modernise Council's 1980 development consent.

In 2017, AGL prepared a Rehabilitation Report for the site setting out its proposed strategy for rehabilitating the power station site. This strategy involves consulting with Council and other key stakeholders over the next few years to develop a detailed rehabilitation plan for the site that would be implemented following the closure of the power station. The Department considers this to be the best approach to ensure the site is properly rehabilitated.

All but one public submission objected to the project. These submissions were critical of the air quality impacts of the existing power station, and recommended that strict conditions be imposed on the turbine upgrade application to require the installation of the best available pollution control technology at the power station.

While the Department acknowledges community concerns about the air quality impacts of the power station, including the cumulative air quality impacts associated with other mining and energy projects in the region, its detailed assessment has shown that the project would not result in any changes to the impacts of the power station. This is principally because they relate to the generating units rather than the combustion units (boilers) of the power station. In fact, the project is expected to marginally improve the energy efficiency of the power station by adding an additional 100 MW of power to be generated for the same air emissions.

Further, the air quality impacts of the power station are currently regulated by the Environment Protection Authority (EPA) under an environment protection licence granted under the *Protection of the Environment Operations Act 1997* (POEO Act). The EPA has advised the Department that it has no concerns about the application, and that there would be no need to change the current licence. The Department notes the EPA has the power to impose stricter air quality conditions on AGL at any time should they be warranted, and considers the POEO Act - rather than the EP&A Act - to be the best legislation for regulating the air quality impacts of the power station.

### **Assessment**

The Department has assessed the merits of the project, and found that the upgrade can be carried out with minor environmental impacts.

The additional construction traffic associated with the project would represent a small increase to the traffic generated by the existing staff at the power station during a maintenance shutdown, and would have no discernible impact on the New England Highway or the access to the power station.

Each stage would require 10 over-dimensional vehicles to be used to deliver the new turbines to the site and remove the old turbines from the site. Due to road works on the New England Highway near Singleton, these vehicles would need to use the Golden Highway, Denman Road, Thomas Mitchell Drive and the New England Highway to get to and from the site during the first stage of the project. In subsequent upgrades, however, these vehicles will be able to get to and from the site directly using only the New England Highway.

The RMS has advised the Department that both routes are capable of taking over-dimensional vehicles, and that AGL would be required to obtain a Road Occupancy Licence from RMS for the use of any over-dimensional vehicles associated with the project.

### **Conclusion**

The project is of critical importance to NSW as it would progressively upgrade the Bayswater Power Station, and improve its reliability. This will help strengthen the energy security and reliability of the east coast electricity market, and go some way towards mitigating the risk posed by the closure of the Liddell Power Station in 2022.

Maintaining sufficient generation to meet demand at any given time, plus a margin for contingencies, was one of the key recommendations in the *Final Report from the Energy Security Taskforce* (December 2017) prepared by the NSW Chief Scientist & Engineer.

Given the benefits of the project can be achieved with minimal environmental impacts, the Department considers that the project is in the public interest and should be approved, subject to conditions.





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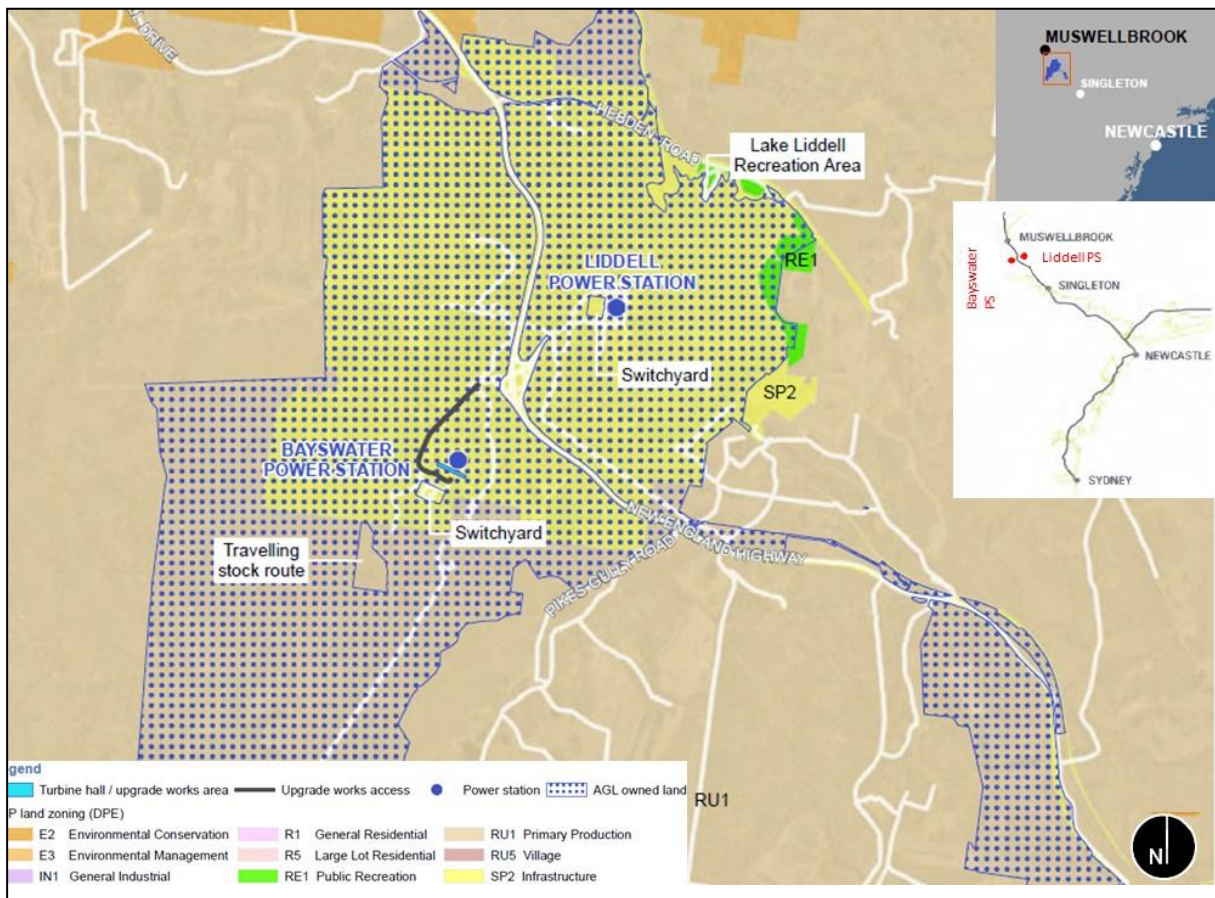


# 1. Introduction

## 1.1 Project setting

AGL Macquarie Pty Limited (AGL) owns and operates the Bayswater Power Station about 16 km south-east of Muswellbrook, in the Hunter Valley (see **Figure 1**).

The Bayswater Power Station is a coal-fired power station with a total generating capacity of 2,640 megawatts (MW), and provides approximately 15,000 GWh of electricity a year, enough to power two million homes.



**Figure 1** | Regional Context

## 1.2 Regulatory Framework

The power station was commissioned in 1985 and operates primarily under Development Consent (DA 47209), which was granted by Muswellbrook Shire Council in 1980. Several other planning consents have been granted over the life of the power station, including consents issued by Muswellbrook Shire Council, Singleton Council and the Minister for Planning.

Additionally, the power station operates under Environment Protection Licence (EPL) 779, which was issued by the Environment Protection Authority (EPA) under the *Protection of the Environment Operations Act, 1997* (POEO Act). The EPL includes the air quality emission limits and monitoring requirements for the power station.



## 2. Project

AGL proposes to replace the existing turbines in each of the generating units at the Bayswater Power Station with new turbines. This will improve the efficiency and reliability of the power station until its scheduled closure in 2035.

The project would be undertaken in four stages to coincide with scheduled maintenance shutdowns at the power station with the first stage to start in February 2019. Each stage would involve replacing the turbines within one generating unit.

The upgrade works would be similar to regular maintenance works undertaken on the generating units during a scheduled outage, which requires the removal of turbine casings, inspection and maintenance of turbine components and reassembly.

Further, the upgrade works would be entirely contained within the existing turbine hall of the power station, except for the turbine deliveries and disposal of the old turbine components.

All access to the site would be via the existing site access off the New England Highway.

Up to 10 overdimensional vehicles would be required to deliver the new turbines to the site during each of the four stages of the upgrade works, and to remove the existing turbines from the site.

These vehicles would come from Newcastle, and travel directly to the site along the New England Highway. For the first stage of the upgrade works, however, these vehicles would need to use an alternate route due to the rail works currently being carried out over the New England Highway north of Singleton. During this stage, overdimensional vehicles would travel to and from the site via the Golden Highway, Denman Road, Thomas Mitchell Drive and the New England Highway.

The new turbines would be delivered directly to the turbine hall at the power station. Inside the turbine hall, the turbine components would be lifted off the vehicles using existing cranes and placed on the turbine floor. These components would then be installed in the generating unit. Consequently, the project does not require any clearing or ground disturbance.

Once operational, the new turbines would not increase the coal consumption rates of the existing boilers or require changes to any other existing operations at the power station.

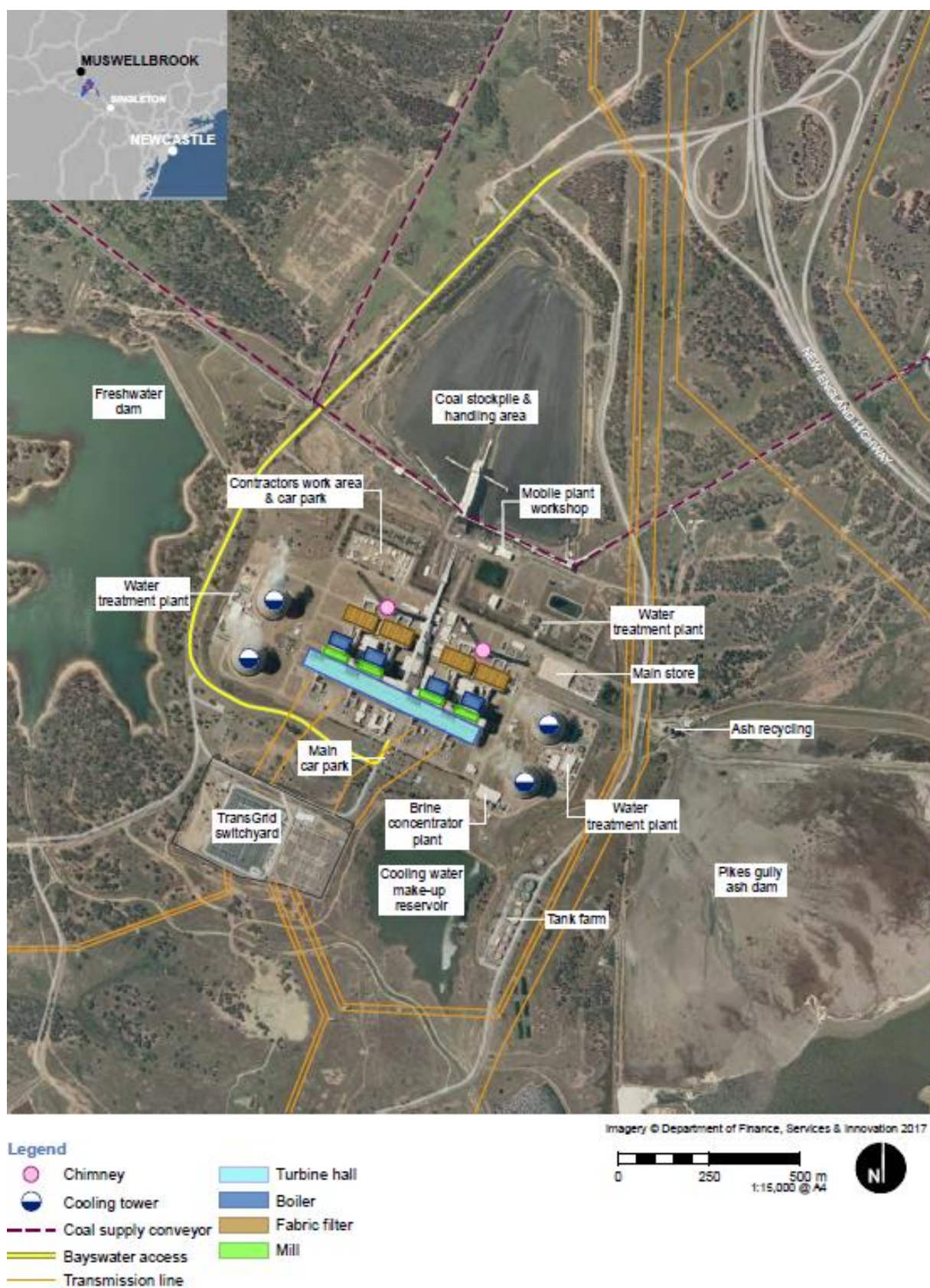
The key components of the project are detailed in **Table 1**.



**Table 1** | Main Components of the Project

Aspect	Description
<b>Project summary</b>	<ul style="list-style-type: none"> <li>Replacing the existing turbines within each generating unit over a four-year period (one generating unit per year), and operating the new turbines.</li> </ul>
<b>Turbine installation process</b>	<p>For each generating unit:</p> <ul style="list-style-type: none"> <li>delivery of components to the existing loading bay of the turbine hall;</li> <li>turbine components to be lifted by existing cranes within the turbine hall;</li> <li>removal of the turbine casings, extraction of the four turbines, replacement of turbines and reinstatement of the existing turbine casings; and</li> <li>waste categorisation and off-site recycling and disposal of wastes.</li> </ul>
<b>Disturbance footprint</b>	<ul style="list-style-type: none"> <li>Works located within the existing turbine hall, no ground clearance required.</li> </ul>
<b>Over-dimensional and heavy vehicle transport routes</b>	<p>During each stage:</p> <ul style="list-style-type: none"> <li>10 over-sized and over-mass deliveries from the Port of Newcastle to the site;</li> <li>10 over-sized and over-mass dispatches from the power station to Muswellbrook for the recycling of old turbines;</li> <li>27 heavy vehicle deliveries; and</li> <li>70 light vehicles per day during peak hours.</li> </ul> <p>The main transport route would use the New England Highway to the south of the site.</p> <p>While height restrictions from the upgrade of the rail bridge at the New England Highway near Singleton remain in place, the alternative transport route for oversized vehicles would use the Golden Highway, Denman Road, Thomas Mitchell Drive and New England Highway to the north of the site.</p> <p>Both transport routes are already used frequently for over-dimensional and heavy vehicle deliveries to the Hunter Region.</p>
<b>Upgrade hours</b>	<p>Each stage:</p> <ul style="list-style-type: none"> <li>50 days a year within the scheduled 72-day maintenance shutdown.</li> <li>Between 6:30 am – 4:30 pm including Saturdays, Sundays and Public Holidays.</li> </ul>
<b>Decommissioning</b>	<ul style="list-style-type: none"> <li>The Bayswater Power Station is scheduled for closure in 2035.</li> </ul>
<b>Employment</b>	<ul style="list-style-type: none"> <li>70 additional workers over 50 days during per stage.</li> </ul>
<b>Capital investment value</b>	<ul style="list-style-type: none"> <li>\$129 million</li> </ul>

**Figure 2** shows the location of the project within the Bayswater Power Station and the access road from the New England Highway to the site.



**Figure 2** | Project Layout and Access Road



## 3. Strategic Context

### 3.1 Energy Security and Reliability

Bayswater Power Station is Australia's second largest power station and plays a pivotal role in providing energy security for NSW and the broader National Electricity Market (NEM) at a time when around 5,200 MW of baseload generation has been withdrawn from the grid in the last ten years.

The project would improve the reliability of the Bayswater Power Station until its scheduled closure in 2035, and reduce the number of unanticipated outages for each generating unit. The new turbines would improve the overall cycle efficiency at the power station, increasing the output of each generating unit by 25 MW and reducing coal consumption rates and emissions per MWh produced.

It is essential for these works to coincide with the scheduled shutdowns at the power station over the next four years. This will minimise the risk of disruption to NSW's energy security and ensure that all new turbines are operating prior to the closure of the Liddell Power Station in 2022.

The project would improve the capacity, reliability and efficiency of the Bayswater Power Station delivering greater energy security for NSW during peak periods, and strengthen the east coast electricity network



## 4. Statutory Context

### 4.1 State Significant Infrastructure

On 1 March 2018, the Minister determined the project was essential to the State for economic reasons because it would strengthen energy security and the reliability of the east coast electricity network, and made an order declaring the project to be State significant infrastructure and Critical State significant infrastructure under sections 5.12 and 5.13 of the EP&A Act.

Consequently, the Minister is the approval authority for the project.

In its submission on the project, Muswellbrook Shire Council questioned whether the Minister's declaration included the installation and use of the new turbines. The Department has confirmed it includes both.

Council also questioned whether the increased production capacity associated with the use of the new turbines would make the ongoing operation of the power station inconsistent with the 1980 development consent for the power station. The Department does not believe this to be the case. The operation of the power station is the subject of multiple planning consents, many including upgrades to components of the power station that weren't envisaged in the original development consent for the power station. Together, these consents authorise the ongoing operations of the power station, and where there are inconsistencies between these consents, the most recent consent is generally taken to prevail to the extent of any inconsistency.

### 4.2 Permissibility and Environmental Planning Instruments

The project is located within the Muswellbrook Shire LGA. The whole of the project site is zoned SP2 – Infrastructure: Power Station under the *Muswellbrook Shire Local Environment Plan (LEP) 2009*. The project meets the definition of a 'power station' in the LEP and is therefore permissible with development consent.

Also, under *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP), development for the purposes of electricity generating works may be carried out by any person with consent on any land in a prescribed rural, industrial or special use zone. Zone SP2 Infrastructure is a prescribed special use zone under the ISEPP. Consequently, the project is also permissible with development consent under the ISEPP.

There are no other environmental planning instruments that substantially govern the carrying out of the project.

### **4.3 Biodiversity Conservation Act 2016**

The *Biodiversity Conservation Act 2016* (BC Act) under section 7.9(2) requires any SSD or SSI application "to be accompanied by a biodiversity development assessment report (BDAR) unless the Planning Agency Head and the Environment Agency Head determine that the proposed development is not likely to have any significant impact on biodiversity values".

AGL submitted an application under sections 1.5 and 7.3 of the BC Act and clause 1.4 of *Biodiversity Conservation Regulation 2017* to determine whether the project application would require a BDAR.

Following review of the application, the Department and OEH agreed to waive the requirement for a BDAR for this project, as the project would not have any significant impacts on biodiversity values.





## 5. Engagement

### 5.1 Department's Engagement

After receiving the project application and accompanying Environmental Impact Statement (EIS), the Department:

- advertised the exhibition in the Singleton Argus (Fairfax Regional) on 18 July 2018, Sydney Morning Herald and Daily Telegraph on 18 July 2018, and the Muswellbrook Chronicle (Fairfax Regional) on 20 July 2018;
- publicly exhibited the EIS from 18 July 2018 until 15 August 2018:
  - on its major projects website;
  - at Muswellbrook Shire Council; and
  - the Nature Conservation Council; and
- notified relevant State government authorities in writing.

Additionally, the Department conducted a planning focus meeting and site visit with representatives from the relevant regulatory authorities, including the EPA and Muswellbrook Shire Council, on 11 April 2018.

### 5.2 Summary of Submissions

The Department received 54 submissions on the proposal, including 6 from government agencies, 5 from special interest groups and 43 from the public. A summary of the submissions is provided in **Table 2**. Full copies of the submissions are provided in **Appendix C**.

**Table 2** | Summary of Submissions

Submitters	Number	Position
<b>Public Authority</b>	<b>5</b>	
Muswellbrook Shire Council, Environment Protection Authority, Roads and Maritime Services, NSW Rural Fire Services, Department of Industry Lands & Water		Comment
<b>Special Interest Group</b>	<b>6</b>	
Environmental Justice Australia, Nature Conservation Council of NSW, Hunter Environment Lobby Inc, Hunter Community Environment Centre Inc, Hunter Communities Network, Environment Council of Central Queensland		Object
<b>Community</b>	<b>43</b>	
• < 40 km	3	Object
• 40 – 100 km	2	Object
• > 100 km	37	Object
	1	Comment
<b>TOTAL</b>	<b>54</b>	

### 5.3 Response to Submissions

AGL provided its response to the issues raised in submissions in September 2018 (see **Appendix D**).



## 5.4 Key Issues – Government Agencies

None of the government agencies objected to the project. Key issues raised by agencies have been addressed through the provision of additional information, or through the recommended conditions of approval.

The **Environment Protection Authority (EPA)** had no concerns with the project and advised that no changes were required to the existing environmental protection licence for the power station.

**Roads and Maritime Services (RMS)** advised that AGL would need to obtain a Road Occupancy Licence prior to using any over-dimensional vehicles for the project. This is discussed further in Section 6.1.

**Muswellbrook Shire Council (Council)** said AGL should be required to submit a new development application to Council within two years of any grant of approval of the project to modernise the existing consent for the power station and address a range of matters (such as discharge of pollutants, construction hours, environmental management and reporting), and to ensure the site is properly rehabilitated following the scheduled closure of the power station in 2035. This is discussed further in Section 6.3.

The **NSW Rural Fire Services (RFS)** and **Department of Industry – Crown Lands and Water** did not have any concerns about the project.

## 5.5 Key Issues – Special Interest Groups and Community

All but one of the submissions from the public objected to the project (see **Table 2**). These submissions were concerned about the air quality impacts of the Bayswater Power Station, citing exceedances of pollution indicators such as sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>) and particulate matter (PM) in the Hunter region. They recommended that strict conditions be imposed on the turbine upgrade application to require the installation of the best available pollution control technology at the power station. This is discussed further in Section 6.2.

In addition to air quality, the submissions were critical of the level of consultation undertaken for the project. Several submissions suggested that a public meeting should be held by the Independent Planning Commission of NSW (IPC).

Due to the minor scale and nature of the project, the Department considers that the public has been given enough time to comment on the project: the EIS was exhibited for 28 days, and members of the public were given the opportunity to submit additional information to the Department after the formal exhibition period had closed.



## 6. Assessment

The Department undertook an assessment of the merits of the project. This report provides a discussion of the key issues raised, including traffic, air quality and modernising the existing consent. The key documents that informed the assessment are listed in **Appendix A**.

### 6.1 Transport

The Bayswater Power Station is readily accessible by heavy and over-dimensional vehicles via the RMS classified road network. The site would be accessed via slip-lanes and a grade-separated interchange that is shared with Liddell Power Station.

The main transport route for the project would be via the New England Highway with heavy vehicles approaching the site from the south. Adjusted height restrictions apply to this route until April 2019 due to rail bridge upgrade works on the New England Highway near Singleton. As such, oversized vehicles travelling to and from site during the first scheduled maintenance period would bypass Singleton using the Golden Highway, Denman Road, Thomas Mitchell Drive and the New England Highway approaching the site from the north.

Currently, the New England Highway interchange operates with excellent levels of service and additional spare capacity. As the transportation of the oversized vehicles between the Port of Newcastle and the power station would be via existing approved routes for such loads, no road upgrades are proposed for the project.

#### Traffic Generation

The key traffic and transport impacts of the project relate to the volume of traffic likely to be generated during each stage and the size of the components that need to be transported to and from the site. **Table 3** gives a summary of the additional vehicle movements associated with the upgrades. These movements would be in addition to typical scheduled maintenance shutdowns at the power station involving approximately 460 day-shift contractors and 58 night-shift contractors in addition to around 98 day-shift operational staff and 70 night-shift operational staff.

**Table 3** | Upgrade-related traffic generation

Vehicle type	Vehicle movements
Light	70 to the site per day (AM peak) 70 from the site per day (PM peak)
Heavy	5 in and 5 out per day (AM peak) 5 in and 5 out per day (PM peak)
Over-dimensional	10 to the site prior to commencement of each stage 10 from the site during each stage

The main increase in traffic volumes associated with the project would occur for 50 days a year during scheduled maintenance shutdowns with large loads such as the turbines to be delivered prior to the start of each stage.

#### Conclusion

While there would be additional traffic during the upgrade works, the level of service would remain unchanged. The temporary increase in traffic volumes would be readily absorbed by the road network. RMS advised that AGL would be required to obtain a Road Occupancy Licence under the Heavy Vehicle National Law prior to the use of

any over-dimensional vehicles associated with the project, and to implement a Traffic Management Plan in consultation with RMS during their use.

Subject to the recommended conditions, the Department and RMS are satisfied that the project would not result in any significant impacts on road network capacity, efficiency or safety.

## 6.2 Air Quality and Greenhouse Gas Emissions

Almost all the public submissions on the project raised concerns about the existing air quality impacts of the power station, citing exceedances of the relevant SO<sub>2</sub>, NO<sub>x</sub> and particulate matter standards in the surrounding area, and the potential health impacts associated with these emissions.

They also asked for strict conditions to be placed on AGL, requiring the best available pollution controls to be installed at the power station.

While the Department acknowledges community concerns about the air quality impacts of the power station, including the cumulative air quality impacts associated with other mining and energy projects in the region, its detailed assessment has shown that the project would not result in any changes to the impacts of the power station. This is principally because they relate to the generating units rather than the combustion units (i.e. the boilers) of the power station.

Additionally, the Department notes that the adjoining Liddell coal fired power station is scheduled to closure in 2022, and this is likely to subsequently improve the air quality of the Upper Hunter region.

The project would improve the efficiency of the power station turbines by 3.5 - 4%, adding 100 MW of capacity which is equivalent to 500,000 MWh of electricity generation per year (equivalent to powering 85,000 homes) with no additional greenhouse gas emissions.

Consequently, the Department considers that the project represents an efficient use of existing infrastructure to generate more electricity while avoiding the air quality impacts that could arise from the construction of a new power station.

## 6.3 Modernising Consent

The Department has reviewed Council's recommendation to impose a condition requiring AGL to submit a development application to Council to modernise the current 1980 development consent, and provide a clear plan for the rehabilitation of the site following the scheduled closure of the power station in 2035.

While the Department supports the proper rehabilitation of the site following the scheduled closure of the power station, it has to assess the turbine upgrade application on its merits. This application deals only with the replacement of the existing turbines and use of the new turbines, and does not relate to the ongoing operation of the rest of the power station or the rehabilitation of the site.

Consequently, it would be an impermissible use of the powers in the EP&A Act to try to regulate the operation of the whole power station or rehabilitation of the site through an application that is seeking approval for a minor upgrade to the power station. It would also be impermissible to require AGL to submit a new development application to modernise Council's 1980 development consent.

In 2017, AGL prepared a Rehabilitation Report for the site setting out its proposed strategy for rehabilitating the power station site. This strategy requires consulting with Council and other key stakeholders over the next few years to develop a detailed rehabilitation plan for the site that would be implemented following the closure of the power station. The Department considers this be the best approach to ensure the site is properly rehabilitated.

## 6.4 Other Issues

The Department's consideration of other issues is summarised in **Table 4**.

**Table 4** | Consideration of other issues

Issue	Consideration
Waste Management	<ul style="list-style-type: none"><li>• The key waste streams from the project include turbine components, packaging and maintenance waste.</li><li>• AGL has committed to recycling up to 100% of the metal turbine components at an offsite recycling facility.</li><li>• No hazardous waste is anticipated.</li><li>• All waste would be classified in accordance with <i>Waste Classification Guidelines</i> (EPA, 2014) and disposed of at an appropriately licenced facility.</li><li>• The Department considers these measures would ensure appropriate waste management for the project and has recommended operational conditions in this regard.</li></ul>
Water	<ul style="list-style-type: none"><li>• The project would not change the water supply sources, storage, use or treatment of water at the power station.</li></ul>
Noise	<ul style="list-style-type: none"><li>• The closest residential receiver is 2.8 km from the power station.</li><li>• Potential noise impacts from the upgrade works are not considered significant and would not be audible over noise generated during a typical maintenance outage period or from noise generated by the operation of the power station.</li><li>• All the installation works would be contained within the existing turbine hall and there would be no additional laydown areas, access upgrades, parking areas, temporary or permanent structures or clearing undertaken.</li><li>• The Department notes the EPL does not currently regulate noise emissions from the power station but could be amended at any time should the EPA deem necessary. However, in the current context, the EPA raised no concerns and the Department has not recommended any conditions in this regard.</li></ul>
Workforce Accommodation	<ul style="list-style-type: none"><li>• An additional workforce of about 70 people over a period of 50 days a year would be required for each stage.</li><li>• Given the proximity of the project to several regional centers in the Hunter region, the Department considers that the additional workforce could easily be accommodated. Also, AGL anticipates that most workers would be the same as those who have undertaken annual shut-down maintenance of the turbines in prior years.</li></ul>



## 7. Evaluation

The Department has assessed the merits of the project in accordance with the requirements of the EP&A Act.

Submissions received identified the opportunity for the Department to modernise existing consents and to impose stricter air emission limits in the planning approval instrument. While the Department recognises that coal-fired power stations are a large contributor to emissions at a regional scale, the project would in fact reduce emissions and the power station is already operational and regulated by the EPA through EPL 779.

In recognising that the proposed upgrade is essentially maintenance and wholly contained within the existing footprint of the site, the Department has recommended a limited suite of approval conditions that would effectively manage any potential residual impacts associated with the project, namely potential traffic impacts.

Importantly, the project would firm up reliability of supply at Bayswater prior to the closure of Liddell Power Station which offers benefits for the wider community and is consistent with the NSW Government's vision for a secure, reliable, affordable energy future for the State.

As this can be done without the need to undertake major works, with no significant adverse impacts, the Department considers that the project is in the public interest and should be approved, subject to the recommended conditions.

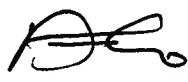


## 8. Recommendation

It is recommended that the Minister for Planning:

- **considers** the findings and recommendations of this report; and
- **accepts and adopts** all the findings and recommendations in this report as the reasons for making the decision to grant approval to the application;
- **considers** any advice provided by the Minister having portfolio responsibility for the project;
- **agrees** with the key reasons for approval listed in the notice of decision;
- **grants approval** for the application in respect of SSI 9234, subject to the conditions in the attached project approval; and
- **signs** the attached project approval and recommended conditions of approval (see attachment).

Recommended by:

 27/11/18

**Anthony Ko**

Senior Environmental Assessment Officer  
Resource and Energy Assessments

Recommended by:

 27/11/18

**David Kitto**

Executive Director  
Resource Assessments and Business Systems





## ***Appendices***

## Appendix A: List of Documents

Bayswater Power Station Turbine Efficiency Upgrade Project, Environmental Impact Statement, Jacobs Group (Australia) Pty Limited, July 2018.

Bayswater Power Station Turbine Efficiency Upgrade Project Response to Submissions, AGL Macquarie Pty Limited, 21 September 2018.

Bayswater Turbine Efficiency Upgrade Project – Addendum to Response to Submissions, AGL Macquarie Pty Limited, 22 November 2018

## Appendix B: Environmental Impact Statement

See the Department's website at <http://majorprojects.planning.nsw.gov.au/>

## Appendix C: Submissions

See the Department's website at <http://majorprojects.planning.nsw.gov.au/>

## Appendix D: Response to Submissions

See the Department's website at <http://majorprojects.planning.nsw.gov.au/>



## Appendix E: Recommended Instrument of Approval