Uranquinty Power Station

2019 Annual Environmental Management Report

March 27, 2020

As recommended by the New South Wales Department of Planning and Environment, the Post-approval requirements for State significant mining developments – Annual Review Guideline (2015) (the guideline) has been considered in the preparation of this report. The format and content of this report has been reformed to conform with the guideline.

Contents

1 Annual Review

Table 1.1 Annual Review

Name of operation	Uranquinty Power Station
Name of operator	Origin Energy
Development approval #	DA 31-2-2004-i MOD10 (Consent)
Name of holder of development consent / project approval	Origin Energy Uranquinty Power Pty Ltd
Environmental protection licence #	12490 (EPL)
Name of holder of EPL	Origin Energy Uranquinty Power Pty Ltd
Annual Review start date	1 January 2019
Annual Review end date	31 December 2019
I, Paul Olsen, certify that this report is a true and accurate record of the compliance status of the Uranquinty Power Station for the period 1 January 2019 – 31 December 2019 and that I am authorised to make this statement on behalf of Origin Energy Uranquinty Power Pty Ltd.	
Name of authorised reporting officer	Paul Olsen
Title of authorised reporting officer	Uranquinty Power Station Plant Manager
Signature of authorised reporting officer	P. Olsen
Date	30 March 2020

2 Statement of compliance

Table 2.1 Statement of compliance

Were all conditions of the relevant approval(s) complied with?	
DA 31-2-2004-i MOD10 (Consent)	YES
EPL 12490	YES

The compliance ratings below come from the 'Compliance Status Key for Table 3' in the *"NSW Annual Review Guideline, Post-approval requirements for State significant mining developments, October 2015"*. These ratings have been used to rate any non-compliance identified in Table 2.2 below.
A detailed summary of compliance against the individual conditions in the two USP approvals are provide in Appendix A.

Risk level	**Colour code**	**Description**
High	Non-compliant	Non-compliance with potential for significant environmental consequences, regardless of the likelihood of occurrence
Medium	Non-compliant	Non compliance with: • Potential for serious environmental consequences, but is unlikely to occur; or • Potential for moderate environmental consequences, but is likely to occur
Low	Non-compliant	Non compliance with: • Potential for moderate environmental consequences, but is unlikely to occur; or • Potential for low environmental consequences, but is likely to occur
Administrative non compliance	Non-compliant	Only to be applied where the non-compliance does not result in any risk of environmental harm (e.g. submitting a report to government later than required under approval conditions)

Table 2.2 Non-compliances

No non-compliances were incurred during the reporting period. No non-compliances with the EMP were incurred during the reporting period.

3 Introduction

Uranquinty Power Station (UPS) is operated to meet New South Wales' needs for electrical power. The plant output is generated by four open cycle gas turbines. The power station is fuelled by natural gas that passes through the site at a pressure of up to 10MPa. The existing buried natural gas pipeline runs along the western side of the plant and then diverts north-east between the plant and switchyard. The natural gas enters the facility through a metering skid and a gas receiving station and is then directed to the gas turbines. Exhaust gases are dispersed via a stack, 35 metres in height, adjacent to each gas turbine building. Process water is sourced from the town water reticulation system and either used directly (Evaporative Cooling) or treated via the demineralization plant to meet process specifications (for injection into the Combustion Chambers). This process uses reverse osmosis technology, and treatment wastes are pumped to the evaporation ponds.

The basic components or structures of the facility are:

- gas pipelines and gas fuel filter and reduction station;
- gas turbine buildings, transformers and exhaust stacks;
- water storage and demineralization plant (reverse osmosis);
- power control centre/building;
- emergency diesel generators and minor distillate tanks; and
- fire control facilities.

Other support facilities include an office building, workshop and warehouse. A stormwater holding pond and two evaporation ponds are also constructed adjacent to the plant.

Six full-time personnel are employed at the facility.

Table 3.1 UPS plant and operations

Category	Description
Power Generating Capacity	Rated output of each Unit is 166MW.
Fuel	Natural Gas
Technology	4x Siemens SGT5-2000E turbines
Facility Footprint	35 ha
Plant Operating Mode	Manned & Remote Operation
Personnel	6
No. Units	4

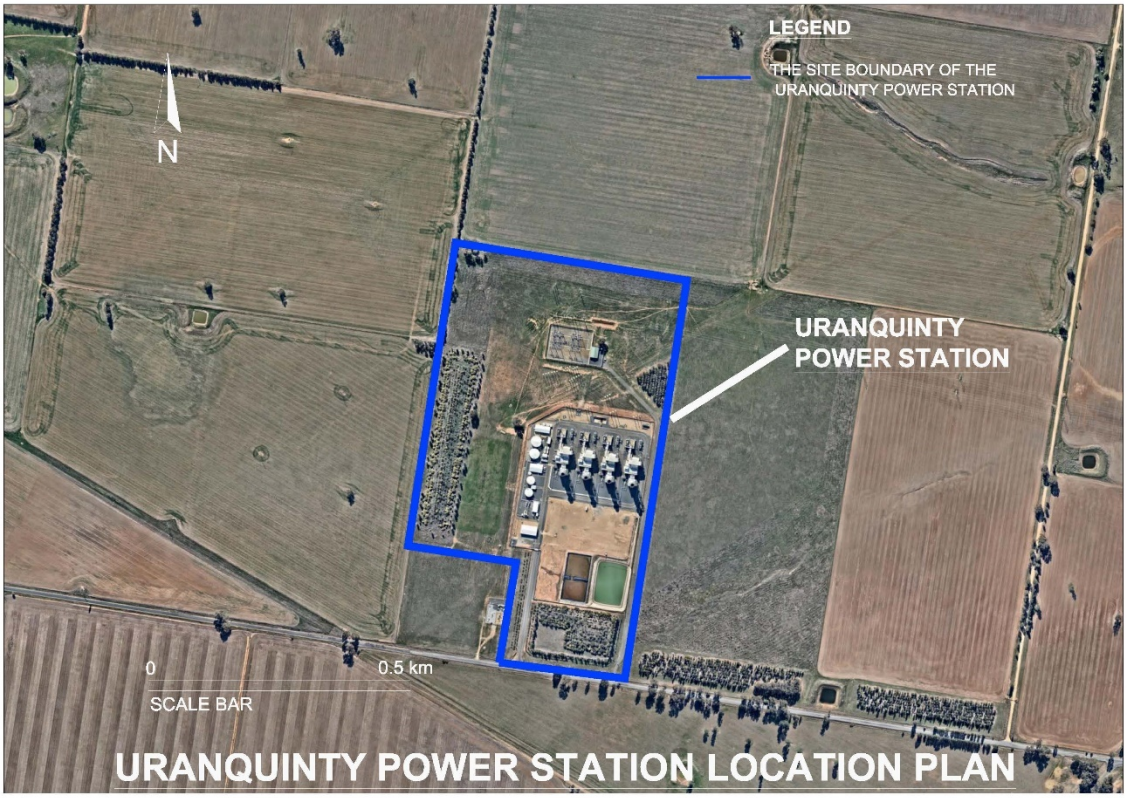

Figure 3.1 Site Location Plan – Uranquinty Power Station

Table 3.2 Contact details of key personnel

Position	Name	Contact details
Environmental representative	Lauren Barnaby	P: 07 3867 0101 E: lauren.barnaby@originenergy.com.au
Plant manager	Paul Olsen	P: 02 69270101 E: paul.olsen@originenergy.com.au
Environment business partner	Marianne Gibbons	P: 07 4672 6646 E: marianne.gibbons@originenergy.com.au

4 Approvals and Licences

UPS operates under two approvals listed below. There were no amendments to either of these approvals in the reporting period.

Table 4.1 Approval details.

Approval	Details
Development Approval DA 31-2-2004-i MOD10 (Consent)	Approval dated 10 June 2005 Commencement of operations: 1 January 2009 File number S03/01578
Environmental Protection Licence 12490 (EPL)	Licence version date: 6 June 2012 Anniversary date: 27 November

5 Operations summary

Tables 5.1-5.3 provide a summary of UPS operations during this reporting period against operating data presented in the UPS 2004 Environmental Impact Statement (EIS).

Table 5.1 Number of Unit Starts – UPS 2019

UPS Unit Starts						
	EIS	**All Units**	**GT11**	**GT12**	**GT13**	**GT14**
January		67	19	18	16	14
February		25	6	8	6	5
March		15	5	5	2	3
April		9	4	0	4	1
May		61	27	10	14	10
June		93	32	38	6	17
July		80	21	37	13	9
August		74	25	32	0	17
September		115	38	27	34	16
October		118	45	27	42	4
November		68	23	17	20	8
December		22	5	5	7	5
Total	1,000	747	250	224	164	109

Table 5.2 Electricity Generation – UPS 2019

UPS Unit Electricity Generation – GWh						
	EIS	**All Units**	**GT11**	**GT12**	**GT13**	**GT14**
January		60	18.9	16.5	13.3	11.5
February		22.5	6.9	6.5	5.0	4.1
March		16	5.0	5.2	2.6	3.0
April		4	2.1	0.0	1.5	0.3
May		26	11.6	4.6	5.9	4.0
June		45	14.6	18.6	3.6	8.3
July		31	7.8	14.8	5.1	3.4
August		41	13.6	17.9	0.0	9.8
September		95	28.8	19.9	32.1	14.6
October		181	54.4	59.0	56.4	10.7
November		57	18.5	16.6	17.4	4.6
December		16.7	3.66	3.78	5.41	3.89
Total (GWh)	1,000	595.7	185.86	183.38	148.31	78.19

Table 5.3 Gas and Water use – UPS 2019

Resource Use	**EIS**	**2019**
Natural Gas Usage/Annum	18.3 PJ	6.921 PJ
Water Use (Average Daily)	23m^3/Day	80 m^3/Day

Next reporting period

The 2020 calendar year operations will be market driven, influenced by ambient weather conditions and fuel availability, the COVID-19 virus creating a high level of unpredictability. At the time of writing, electricity demands are circa 20 - 30% lower than the same time last year believed to be due both milder autumn and the effects of the virus. Actual operations and water usage for the January / February 2020 period has seen a reduction on previous year which was at record levels, the water injection capabilities utilized extensively leading into summer to maximise efficiency in response to market volatility. After a collective 14 weeks of outages across two units during CY 2019 all units are expected to be fully available for the whole of CY20.

6 Actions required from previous Annual Report

Table 6.1 Actions from previous Annual Report

Action required from previous Annual Report	Requested by	Action taken by the Operator	Where discussed in Annual Report
Operational Environmental Management Plan to be submitted for review and approval by Department of Planning and Environment before it may be implemented.	New South Wales Department of Planning and Environment	Completed and approved.	Section 10
Amend structure of Annual Environmental Management Report	New South Wales Department of Planning and Environment	Completed.	Cover page (pg. 1)

7 Environmental performance

Table 7.1 Environmental performance[1]

Aspect	EMP objectives	Performance during the reporting period	Key management issues / incidents	Implemented management actions	Proposed improvements
Air quality	To ensure emissions are within the Air Quality Limits contained in the DOP&I DA and EPA Site Licence.	Achieved	None		
	To ensure that dust resulting from the sites operations is minimised.	Achieved	None		
Water quality and sediment control	To minimise the risk of contamination of surface water, groundwater and storm water through leaks of spills of chemicals / polluting substances during the operation of the power station.	Achieved	None		
	Ensure storm water and process water works are appropriately designed, constructed and maintained throughout operations.	NA	None		
	To achieve objectives in the WMS submitted and approved by the DOP&I and EPA during the development approval process.	NA	NA		
	Minimise erosion of sediment	Achieved	None		
	Provide permanent erosion and sediment control measures.	Achieved	None		
	Surface waters are not impacted upon by contaminated storm water leaving the site.	Achieved	None	Installed temporary sediment control to mitigate perceived run off risk due additional sealed areas and large areas of disturbed lay	

[1] Table 7.1 identifies requirements under the UPS environmental management plan. See appendix A for all DoPE Development Consent and EPA Environmental Protection Licence requirements and performance.

Aspect	EMP objectives	Performance during the reporting period	Key management issues / incidents	Implemented management actions	Proposed improvements
				down area associated with major outage work.	
	No degradation of paddocks receiving irrigation.	Achieved	None		
Noise	Comply with noise limits of the DA and EPL.	Achieved	None		
	Minimise noise impacts on the surrounding community from the site's operations.	Achieved	None		
Visual amenity	To minimise visual impacts on the immediate, middle and broad view distances.	Achieved	None		
	To ensure on-site lighting does not affect near neighbours.	Achieved	None	Major outage lighting was managed through continuous review so that neighbors were not effected by direct lighting – stack access lights turned off	
Storage and handling of chemicals	Ensure the storage, handling and use of chemicals, oils and diesel on site does not cause pollution of the environments or harm to persons.	Achieved	None	Stringent management and control throughout major outage period	
	No chemical/oil spills outside of designated storage or spill containment areas.	Achieved	None		
Heritage	Ensure that any Indigenous or non-Indigenous heritage objects found on site are treated appropriately and in accordance with the relevant legislation.	NA – no ground disturbance	NA		
Waste	No adverse impacts on land, water or the community from inappropriate containment or disposal of waste.	Achieved	None		
Transport code of conduct	Operate light and heavy vehicles in a manner which minimises impacts of noise, lighting and emissions on the community.	Achieved	None	Signage installed – permitted heavy vehicle delivery times	

Aspect	EMP objectives	Performance during the reporting period	Key management issues / incidents	Implemented management actions	Proposed improvements
	Manage vehicles to and from site in a manner which takes into consideration road safety and congestion on local roads.	Achieved	None	Major outages – buses utilised to keep traffic levels down	

Table 7.2 Nitrogen Dioxide Emissions from CEMS

mg/m3		Jan 19	Feb 19	Mar 19	Apr 19	May 19	Jun 19	Jul 19	Aug 19	Sep 19	Oct 19	Nov 19	Dec 19	Year End
Unit 11	Average	16	18	24	27	26	28	28	28	28	26	27	23	24.9
	Minimum	6	7	8	23	12	23	23	23	23	9	8	8	6
	Maximum	42	38	47	38	51	51	50	50	51	51	51	50	51
Unit 12	Average	19	20	26	0	26	30	29	29	29	29	29	24	24.2
	Minimum	8	8	9	0	11	24	25	26	11	10	9	9	0
	Maximum	48	50	48	0	51	51	50	51	50	50	51	50	51
Unit 13	Average	17	29	17	28	26	30	30	0	27	25	25	26	23.3
	Minimum	7	7	8	24	10	27	27	0	10	9	7	6	0
	Maximum	46	45	37	42	46	47	45	0	51	51	46	44	51
Unit 4	Average	15	14	17	28	26	26	26	27	27	25	33	25	24.1
	Minimum	7	7	8	24	10	21	23	23	24	22	11	8	7
	Maximum	43	37	36	43	47	41	36	41	42	41	47	42	47
Licence Limit		51 mg/m3 (100 Percentile),Reference conditions – Dry, 273K, 101.3kPa corrected to 15% O2												

Table 7.3 Average Annual CEMS Data for Nitrogen Oxide and Annual Nitrogen Emissions

Unit	2004 EIS	Consent Limits (Mg/m3)	Av CEMS Nox Result (Mg/m3- 15 min)		Nox Emissions (Tonnes)	
			2018	2019	2018	2019
11	51	51	27	25	33	43
12			30	24	29	49
13			26	23	34	35
14			25	24	26	19
				Total	122	146

Annual stack testing was completed on 4 December 2019 by external consultants Ektimo. A summary of results is provided in Table 7.4 below and compared with results from the previous year and predictions from the Environmental Impact Statement (EIS). Testing was conducted during operation at full load.

Table 7.4 2018 Annual Stack Testing Results compared with 2004 EIS Predictions and 2019 Results

	Volume Flow (m^3/sec)		Exit Velocity (m/sec)		Temperature (^oC)	
Unit	2018	2019	2018	2019	2018	2019
1	1200	1100	41	37	531	522
2	1200	1200	40	40	526	519
3	1200	1200	40	39	530	521
4	1200	1200	40	39	529	521
2004 EIS – All Units	1225		40.6		552	

Table 7.5 UPS 2019 Storm Water Irrigation Water Quality Results Summary

Storm Water Pond Irrigation Quality				
Parameter	**Consent Limits**	**Average**	**Minimum**	**Maximum**
Conductivity	800 uS/cm (Environmental Licence)	248.3	186	339
Parameter	**OEMP Targets**	**Average**	**Minimum**	**Maximum**
pH	6.5-9.5	8.2	7.1	9.5
Total Suspended Solids	100 ppm	15.9	2	53
Hydrocarbons	No Visual oil <10mg/L	1.7	1	3
Chloride	mg/L	66.4	20.9	114
Sodium	mg/L	62.9	18.4	101

Table 7.6 UPS 2019 Stormwater Pond Irrigation and Calculated Pollutants

Stormwater Pond Irrigation On-Site					
Water Irrigated (mega-litres)		Salt Discharged (Kilograms)		Solids Discharged (Kilograms)	
2018	2019	2018	2019	2018	2019
9.67	10.9	1,467	2848	208.6	30.2

There was no stormwater pond overflow in 2019.

Table 7.8 UPS 2019 Storm Water Pond Overflow Water Quality Results Summary

Storm Water Pond Overflow Quality Criteria				
Parameter	Consent Limits	Average	Minimum	Maximum
Conductivity	800 uS/cm (Environmental Licence)			
Parameter	OEMP Target	Average	Minimum	Maximum
pH	7 – 9	Nil O/F	-	-
Total Suspended Solids	100 ppm	-	-	-
Hydrocarbons	No Visual oil <10mg/L	-	-	-
Chloride	mg/L	-	-	-
Sodium	mg/L	-	-	-

There was no stormwater pond overflow in 2019.

Table 7.9 UPS 2019 Stormwater Pond Overflow and Calculated Pollutants

Stormwater Pond Overflow off site		
Water overflowed (mega-litres)	Salt Discharged (Kilograms)	Solids Discharged (Kilograms)
-	-	-

8 Community

No community complaints were received from the community during the reporting period.

Table 8.1.1 Community Complaints Register – UPS 2018

No	Report Date	Time	Nature of Complaint	Nature of action taken or reasons for not taking action as relevant	Issue Open / Closed

8.2 Community Participation Panel

The Community Participation Panel convened on two occasions in 2019.

A UPS Community Committee was re-established in July 2014 and now meets on a quarterly basis. The Committee is made up of:

- Three Community Representatives;
- UPS Site Manager;
- Origin Community Relations Business Partner; and
- Casual Observers welcome to attend meetings.

The aims of the UPS Community Committee are to:

- Provide a transparent forum through which UPS-related issues can be discussed;
- Provide a transparent forum through which Origin can relay information in relation to the UPS;
- Seek and capture community feedback in relation to UPS-related activities so that this information can be considered in decision-making processes; and
- Ensure a greater understanding of community and stakeholder issues, allowing for a more effective response on behalf of Origin.

Specifically, the UPS Community Committee will:

- Receive and relay information in relation to the UPS, acting as a conduit between the community and the UPS;
- Receive updates from Origin on the UPS;
- Represent the community and communicate community sentiment to Origin in relation to UPS impacts and benefits; and
- Work with Origin to identify and advise on social impact management and community development activities.

Table 8.2.1 Community engagement and contributions

Community engagement activities / initiatives	Community contributions
Uranquinty Public School	$30,000
Wagga City Council – Fusion Festival	$15,000
Uranquinty Progress Association Christmas Event	$2,200

9 Independent Audit

The 3-yearly environmental audit for Uranquinty Power Station was conducted in December 2018 by E2M.

The next three yearly Audit will be due in 2021.

10 Incidents and non-compliances during the reporting period

- Nil to report

11 Activities to be completed in the next reporting period

- Water management plan revision is ongoing – UPS is continuing to investigate further water treatment options with the general consensus by our consultant chemical engineer that our pond water is suitable for recycling. This and possible harvesting of water direct from run off into our storm water system would reducing reliance on trucked water and reduce the off take of local potable water supply.
- UPS will look at the installation of solar panels on the roofs of our turbine halls and buildings to reduce grid load. Especially during standstill periods.
- Further investigating the attenuation of unit trip venting noise – focus during the CY2019 was on delivering safe major outages.

12 Appendices – Approvals and licence compliance review

APPENDIX A Development Consent –DA-31-2-2004-i

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
3. ENVIRONMENTAL PERFORMANCE			
Air Quality Impacts	3.1 The Applicant shall design, construct, operate and maintain the development in a manner that minimises dust emissions from the site.	Sealed roadways & gravel areas are maintained around site. Implementation & maintenance of the *Landscape Management Plan* on-site.	Yes
	3.2 The Applicant shall not permit any offensive odour, as defined under section 129 of the *Protection of the Environment Operations Act 1997*, to be emitted beyond the boundary of the site.	An appropriate rubbish bin selection and emptying schedule is in place.	Yes
Limitations on Fuel	3.3 The Applicant shall only use natural gas for routine firing in the power station turbines.	Design of plant - only available fuel.	Yes
	3.4 The Applicant shall only use low sulfur diesel (containing no greater than 0.05 wt% (500 ppm) sulfur) in the power station turbines during emergencies.	No diesel power generation.	Yes
Discharge Limits	3.5 The Applicant shall design, construct, operate and maintain the development to ensure that for each turbine stack discharge point (four in total), the concentration of NOx does not exceed 51mg/m^3 (dry, 273K, 101.3kPA, 15% O_2)	There were no NOx exceedances in this reporting period. Refer section 6.	Yes
Meteorological Monitoring Station	3.6 The Applicant shall install, operate and maintain a meteorological monitoring station to monitor weather conditions representative of those on the site. The Applicant shall use the meteorological monitoring station to undertake the monitoring required under condition 4.1 of this consent.	A meteorological monitoring station is in operation. This system is alarmed to alert operations of any data logging failures with this system.	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Noise Impacts	Vibration Impacts 3.7 The Applicant shall ensure that the vibration resulting from operation of the development does not exceed the evaluation criteria presented in British Standard BS6472 for low probability of adverse comment, at any affected residential dwelling. Heavy Vehicles 3.8 Heavy vehicles shall only be permitted to enter or leave the site between 7:00 am and 7:00 pm on any day. This condition does not apply in the event of a direction from police or other relevant authority for safety reasons.	Design of plant. Truck access hours in place.	Yes
Operation Noise	Operation Noise 3.11 The Applicant shall design, construct, operate and maintain the development to ensure that the noise contributions from the development to the background acoustic environment do not exceed specified noise contributions.	Noise monitoring was conducted by Sonus during December 2019 on all GT's. This testing showed there had been no increase in noise over the period of noise measurements – back to October 2010.	NA
Soil and Water Quality Impacts	3.13 Except as may be expressly permitted by an Environment Protection Licence for the development, the Applicant shall ensure that section 120 of that Act (prohibition of pollution of waters) is complied with in and in connection with the carrying out of the development.	There were no overflows from the site stormwater pond in this reporting period. Refer Section 7	Yes
	3.14 All water detention basins installed on the site for the management of surface water or storm water shall be lined with an impermeable clay liner (or equivalent) of at least 300 millimetres thickness and with a permeability of no greater than 1 x10-9 mms-1. Livestock shall not be permitted to use these basins.	The site stormwater pond has been lined with concrete mat lining and the two demin pond evaporation ponds have PPE plastic lining. No livestock is permitted within UPS security fence.	Yes
Hazards and Risk Impacts Bunding and Spill Management	3.15 The Applicant shall store and handle all liquid hazardous materials and liquid dangerous goods, as defined by the Australian Dangerous Goods Code, strictly in accordance with: a) all relevant Australian Standards; b) a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund.	Fortnightly inspections are occurring. Chemical/oil storage is contained in a purpose-built chemical/oil shed. Transformer bunds are designed to meet the requirement to hold 110% of the volume.	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Waste Generation and Management	3.18 The Applicant shall not cause, permit or allow any waste generated by the development or from outside the site to be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence issued by the NSW EPA. This condition only applies to wastes for which a licence under the *Protection of the Environment Operations Act* or the *Environmentally Hazardous Chemicals Act 1985* is required.	No waste generated on site or from outside of the site was received on site for storage, treatment or disposal on the site.	Yes
Flora, Fauna and Visual Amenity Impacts	3.19 Nothing in this consent permits the destruction, removal or damage of any tree in undertaking the development.	No existing trees on-site have been damaged or removed.	Yes
	3.20 The Applicant shall take all practicable measures to prevent any off-site lighting impacts from the development. In particular the Applicant shall ensure that no lights are directed towards private residences or roads, and that lighting is consistent with Australian Standard *AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting*.	There were no lighting complaints received. Lighting procedure implemented	Yes
Off-Site Screening of Residual Visual Amenity Impacts	3.21 Any landowner with a residential property within three kilometres of the site may, within five years of the commencement of construction of the development, request that the Applicant undertake visual impact mitigation works on the landowner's property.	Visual amenity plantings have been completed. The 5 year maintenance requirement has been completed.	Yes
Heritage Impacts	3.28 In the event that any item with identified or suspected heritage value is discovered/located during the development, the Applicant shall cease all activities that may adversely impact on the item and contact the NSW Heritage Office (in relation to items of non-indigenous heritage significance) or the Department of Environment and Conservation (in relation to items of indigenous heritage significance).	No item or artefact of suspected heritage value was discovered on-site during reporting period.	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
4. Environmental Monitoring & Auditing			
Meteorological Monitoring	4.1 From the commencement of any works on the site, the Applicant shall continuously monitor, utilising the meteorological monitoring station – Temperature Wind Speed Wind Direction Sigma Theta Solar radiation	Weather station data collection is occurring, and data stored electronically on-site. Weather monitoring data is not provided with this report due to the large amount of data generated by the weather monitoring station.	Yes
Air Quality Monitoring	4.2 The Applicant shall determine the pollutant concentrations and emission parameters, at each of the turbine stack discharge points Monitoring shall be undertaken during operation of the development, at the frequency indicated – Nitrogen dioxide (NO2) - Continuous Velocity - Annually Volumetric flow rate - Annually Temperature - Annually Moisture content in stack gases - Annually Dry gas density - Annually Molecular weight of stack gases - Annually Oxygen – Annually Carbon dioxide – Annually	Continuous Emissions Monitoring System (CEMS) is in operation and data is stored electronically on-site. CEMS data is summarised in Section 7 Annual Stack Emissions Testing (by external contractor) was completed and results are in Section 7.	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Noise Monitoring	4.5 Within 90 days of the commencement of operation of the development, and during a period in which the development is operating under design loads and normal operating conditions, the Applicant shall undertake a program to confirm the noise emission performance of the development. A report providing the results of the program shall be submitted to the Director-General and the DEC with 28 days of completion of the testing required under a). 4.6 In the event that the program undertaken to satisfy condition 4.5 of the consent indicates that the operation of the development, under design loads and normal operating conditions, will lead to greater noise impacts than permitted under this consent, then the Applicant shall provide details of remedial measures to be implemented to reduce noise impacts to levels required by that condition. Details of the remedial measures and a timetable for implementation shall be submitted to the Director-General for approval within such period as the Director-General may require, and be accompanied by evidence that the DEC is satisfied that the remedial measures are acceptable.	Noise monitoring was conducted by Sonus during December 2019 on all GT's. This testing showed there had been no increase in noise over the period of noise measurements – back to October 2010.	Yes
Water Quality Monitoring	4.7 The Applicant shall undertake monitoring of discharge water quality from the stormwater retention pond and the evaporation pond for each of the pollutants and parameters listed. Monitoring shall be undertaken for each discharge lasting more than 2 hours. Chloride Conductivity pH Sodium Total suspended solids	There was no overflow from the stormwater pond in this period. Water quality monitoring for irrigation was undertaken and results are in Section 7	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Auditing	4.8 & 4.9 Twelve months after the commencement of operation of the development and every three years thereafter, the Applicant shall commission an independent, qualified person to undertake a Hazard Audit and an environmental audit of the development. The independent person or team shall be approved by the Director-General prior to the commencement of the Audit. A Hazard Audit Report & Environmental Audit Report shall be submitted for the approval of the Director-General no later than one month after the completion of the Audit.	Refer to Section 9	Yes
Community Information, Consultation and Involvement	5.1 – Community Information 5.2 – 5.3 - Complaints Procedure 5.4 – 5.5 – Community Participation Panel	Refer Section 8 Refer Section 8.1 Refer Section 8.2	Yes
Environmental Management	6.1 – Environmental Representative 6.5 – 6.6 – Operational Environmental Management Plan	Refer Section 3 The OEMP review occurs as per Section 6	Yes

APPENDIX B - NSW EPA Environmental Protection Licence – 12490

Document 2:	NSW EPA Environmental Protection Licence – 12490		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
A1 What the licence authorises and regulates	A1.1 This licence authorises the carrying out of the scheduled development work.	Only electrical generation is undertaken on-site.	Yes
Fee Based Activity Scale	Electricity Generation - Generation of electrical power from gas (34[b]) - 1000-4000 Gwh generated	Electricity generated for the 12 month period was 594.7 GWh Refer Section 5.	Yes
2. DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND			
P1 Location of monitoring/discharge points and areas	Type of Monitoring Point P1. Turbine Stack 1 P2. Turbine Stack 2 P3. Turbine Stack 3 P4. Turbine Stack 4 P5. Meteorological Station P6. Discharge from storm water retention pond P7. Irrigation from storm water retention pond.	Points are available & monitored as prescribed. There are no other point source discharges other than those prescribed.	Yes
3. LIMIT CONDITIONS			
L1 Pollution of waters	L1.1 Except as may be expressly provided in any other condition of this licence, the licensee must comply with section 120 of the Protection of the Environment Operations Act 1997.	No pollution of waters has occurred.	Yes
L3 Concentration limits	Pollutant: Nitrogen Oxides (mg/Nm3) 100 percentile concentration limit - 51	CEMS or Predictive Emissions Monitoring System (PEMS) was available at all times during operations. Refer Section 7	Yes
L4 Noise Limits	L6.1 Noise from the premises must not exceed specified sound pressure level (noise) limits	Noise monitoring was conducted by Sonus during December 2019 on all GT's. This testing showed there had been no increase in noise over the period of noise measurements – back to October 2010.	Yes

Document 2:	NSW EPA Environmental Protection Licence – 12490		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
L5 Potentially offensive odour	L5.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.	No offensive odour was generated owing to the implementation & maintenance of appropriate waste management strategies.	Yes
L6 Approved Fuels	L6.1 Natural gas is the only fuel approved for routine firing of the power station turbines. Low sulphur diesel is approved for firing the power station turbines in emergencies when the natural gas supply has been disrupted. Operation of the turbines on diesel fuel must not exceed a total of 70 hours per year.	Only natural gas is used as fuel on-site.	Yes
O1 Activities must be carried out in a competent manner	O1.1 Licenced activities must be carried out in a competent manner. This includes: (a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and (b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.	Site activities are undertaken as per the OEMP.	Yes
O2 Maintenance of plant and equipment	O2.1 All plant and equipment installed at the premises or used in connection with the licenced activity: (a) must be maintained in a proper and efficient condition; and (b) must be operated in a proper and efficient manner.	Operating procedures are in place. Operator training has and continues to be provided as required. Training files are current and kept on site. Maintenance protocols, procedures and inspection checklists are in place. Fortnightly and monthly environmental inspections are occurring.	Yes

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Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
O3 Effluent application to land	O3.1 Waste water utilization areas must effectively utilise the waste water applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil is able to absorb the nutrients, salts, hydraulic load and organic materials in the solids or liquids. Monitoring of land and receiving waters to determine the impact of waste water application may be required by the NSW EPA.	The site irrigation system comprises of paddock irrigation. Irrigation water quality monitoring was undertaken and results are in Section 7. Fortnightly inspections are occurring.	Yes
	O4 A Storm water Management Scheme must be prepared for the development and must be implemented.		
5 Monitoring and recording conditions			
M1 Monitoring records	M1.1 The results of any monitoring required to be conducted by this licence or a load calculation protocol must be recorded and retained as set out in this condition.	Site environmental monitoring records are maintained on-site as either electronic and/or hard copy files.	Yes
	M1.2 All records required to be kept by this licence must be: (a) in a legible form, or in a form that can readily be reduced to a legible form; (b) kept for at least 4 years after the monitoring or event to which they relate took place; and (c) produced in a legible form to any authorised officer of the NSW EPA who asks to see them.		
	M1.3 The following records must be kept in respect of any samples required to be collected for the purposes of this licence: (a) the date(s) on which the sample was taken; (b) the time(s) at which the sample was collected; (c) the point at which the sample was taken; and (d) the name of the person who collected the sample.		

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Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
M2 Requirement to monitor concentration of pollutants discharged	For each monitoring/discharge point or utilisation area specified, the licensee must monitor (by sampling and obtaining results by analysis) the concentration of each pollutant specified. The licensee must use the sampling method, units of measure, and sample at the frequency, specified.	Annual Stack Emissions Testing has been completed. CEMS data is stored electronically on-site. Weather station data collection is occurring and data stored electronically on-site. There was no release from the stormwater overflow this year The site undertook stormwater pond irrigation and stormwater pond overflow water sampling to ensure the quality of water released was suitable for land application. Monitoring results are in Section 7	Yes
M6 Recording of pollution complaints	M6.1 The licensee must keep a legible record of all complaints made to the licensee or any employee or agent of the licensee in relation to pollution arising from any activity to which this licence applies.	The avenues for making a complaint are provided in the OEMP. The Complaints Register for this reporting period is provided in Section 8.	Yes
	M6.2 The record must include details of the following: (a) the date and time of the complaint; (b) the method by which the complaint was made; (c) any personal details of the complainant which were provided by the complainant or, if no such details were provided, a note to that effect; (d) the nature of the complaint; (e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and (f) if no action was taken by the licensee, the reasons why no action was taken.		
	M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.		

Document 2:	NSW EPA Environmental Protection Licence – 12490		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
	M6.4 The record must be produced to any authorised officer of the NSW EPA who asks to see them		
M7 Telephone complaints line	M7.1 The licensee must operate during its operating hours a telephone complaints line for the purpose of receiving any complaints from members of the public in relation to activities conducted at the premises or by the vehicle or mobile plant, unless otherwise specified in the licene.		
	M7.2 The licensee must notify the public of the complaints line telephone number and the fact that it is a complaints line so that the impacted community knows how to make a complaint.		
6. REPORTING CONDITIONS			
R1 Annual return documents What documents must an Annual Return contain?	R1.1 The licensee must complete and supply to the NSW EPA an Annual Return in the approved form comprising: (a) a Statement of Compliance; and (b) a Monitoring and Complaints Summary. At the end of each reporting period, the EPA will provide to the licensee a copy of the form that must be completed and returned to the NSW EPA.	The Annual Return for this reporting period was submitted to the NSW EPA.	Yes
Period covered by Annual Return	R1.2 An Annual Return must be prepared in respect of each reporting period, except where the licence is transferred to a new licensee.		
Deadline for Annual Return	R1.5 The Annual Return for the reporting period must be supplied to the NSW EPA by registered post not later than 60 days after the end of each reporting period.		
Licensee must retain copy of Annual Return	R1.7 The licensee must retain a copy of the Annual Return supplied to the NSW EPA for a period of at least 4 years after the Annual Return was due to be supplied to the NSW EPA.		

Document 2:	NSW EPA Environmental Protection Licence – 12490		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Certifying of Statement of Compliance and signing of Monitoring and Complaints Summary	R1.8 Within the Annual Return, the Statement of Compliance must be certified and the Monitoring and Complaints Summary must be signed by: (a) the licence holder; or (b) by a person approved in writing by the NSW EPA to sign on behalf of the licence holder.		
R2 Notification of environmental harm	Note: The licensee or its employees must notify the NSW EPA of incidents causing or threatening material harm to the environment as soon as practicable after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.	There was no NOx exceedance in this reporting period.	Yes
	R2.1 Notifications must be made by telephoning the NSW EPA's Pollution Line service on 131 555.		
	R2.2 The licensee must provide written details of the notification to the NSW EPA within 7 days of the date on which the incident occurred.		
GENERAL CONDITIONS			
G1 Copy of licence kept at the premises	G1.1 A copy of this licence must be kept at the premises to which the licence applies.	Hard and electronic copies of the Environmental Licence are kept on-site.	Yes
	G1.2 The licence must be produced to any authorised officer of the NSW EPA who asks to see it.		
	G1.3 The licence must be available for inspection by any employee or agent of the licensee working at the premises.		