

# Uranquinty Power Station

## 2023 Annual Environmental Management Report




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.

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## 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 license number	12490 (EPL)
Name of holder of EPL	Origin Energy Uranquinty Power Pty Ltd
Annual Review start date	1 January 2023
Annual Review end date	31 December 2023
I, Harold Villalba, certify that this report is a true and accurate record of the compliance status of the Uranquinty Power Station for the period 1 January 2023 – 31 December 2023 and that I am authorised to make this statement on behalf of Origin Energy Uranquinty Power Pty Ltd.	
Name of authorized reporting officer	Harold Villalba
Title of authorized reporting officer	Uranquinty Power Station Plant Manager
Signature of authorized reporting officer	
Date	25 March 2024

## 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: <ul style="list-style-type: none"> <li>• Potential for serious environmental consequences, but is unlikely to occur; or</li> <li>• Potential for moderate environmental consequences, but is likely to occur</li> </ul>
Low	Non-compliant	Non-compliance with: <ul style="list-style-type: none"> <li>• Potential for moderate environmental consequences, but is unlikely to occur; or</li> <li>• Potential for low environmental consequences, but is likely to occur</li> </ul>
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.

### 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 or treated via the demineralization plant to meet process specifications. 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.

Seven 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	Gemma Dobson	P: 02 4973 0590 E: <a href="mailto:Gemma.Dobson@originenergy.com.au">Gemma.Dobson@originenergy.com.au</a>
Plant manager	Harold Villalba	P: 0460 036 989 E: <a href="mailto:harold.villalbatapia@originenergy.com.au">harold.villalbatapia@originenergy.com.au</a>
Environment business partner	Jarryd Lavery	P: 0457 084 332 E: <a href="mailto:jarryd.lavery@originenergy.com.au">jarryd.lavery@originenergy.com.au</a>

## 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: 13-Sep-2021 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 2023**

UPS Unit Starts						
	EIS	All Units	GT11	GT12	GT13	GT14
January		14	2	2	4	6
February		8	1	1	3	3
March		17	3	2	5	7
April		32	9	3	6	14
May		102	18	16	41	27
June		29	7	2	14	6
July		73	4	6	34	29
August		124	23	20	42	39
September		44	17	10	10	7
October		21	1	5	6	9
November		77	16	15	28	18
December		29	4	4	12	9
Total	1,000	570	105	86	205	174

**Table 5.2 Electricity Generation – UPS 2023**

UPS Unit Electricity Generation – GWh						
	EIS	All Units	GT11	GT12	GT13	GT14
January		8.11	1.39	1.12	2.20	3.40
February		6.14	0.97	0.83	2.03	2.32
March		7.78	1.25	0.72	2.43	3.38
April		16.87	3.79	1.34	3.68	8.06
May		55.03	9.08	7.88	22.90	15.17
June		12.92	3.46	1.03	6.14	2.29
July		32.68	2.01	2.32	16.15	12.20
August		61.59	11.24	9.23	22.58	18.53
September		18.07	7.60	4.18	3.41	2.88
October		8.39	0.44	2.09	2.44	3.42
November		66.41	15.89	11.28	22.66	16.59
December		21.76	2.33	3.10	9.03	7.30
Total (GWh)	1,000	315.75	59.45	45.12	115.65	95.54

**Table 5.3 Gas and Water use – UPS 2023**

Resource Use	EIS	2023
Natural Gas Usage/Annum	18.3 PJ	3.80PJ
Water Use (Average Daily)	23m <sup>3</sup> /Day	41 m <sup>3</sup> /Day

**Next reporting period**

The 2024 calendar year operations will continue to be market driven, influenced by ambient weather conditions, renewables, supporting other Origin assets and fuel availability with expectation of lower rainfall than CY23. The latest Bureau of Meteorology (BoM) Seasonal Outlook indicates the following:

- April to June rainfall is likely to be below median for most of the north and west, and parts of the south and east of Australia.
- April to June maximum and minimum temperatures are likely to very likely to be above median for almost all of Australia.
- April to June maximum temperatures are at least 3 times more likely than normal to be unusually high for most of the west and far north of Australia, Tasmania, south-eastern and central areas of Queensland, and the north-east half of New South Wales.
- April to June minimum temperatures are at least 3 times more likely than normal to be unusually high for much of the east coast, and northern and far south-eastern Australia.
- The long-range forecast is influenced by several factors, including record-warm oceans globally and a weakening El Niño.

Gas yard upgrade and standard turbine outage works will be conducted during 2024 to ensure equipment integrity is sound.

## 6 Actions required from previous Annual Report

The following actions were identified in the previous Annual Report:

As per Section 6 the following tasks are still in progress and will be undertake in 2023:

- **Completed:** Water management - UPS continues to receive water from the council and supplements with trucked water. Currently, Origin follows an optimised plan to received water as required by operations.
- **Progressed into the next phase of works:** Water management plan revision – UPS is carrying out further testing to ascertain the suitability of our storage pond water for recycling, thus reducing reliance on trucked water when energy demands are at their highest. Currently this project is in the feasibility assessment stage.

The following additional tasks are planned for 2023:

- **In progress:** Removal and disposal of residual sediment from within the current evaporation ponds. The works will ensure suitable water retention capacity and provide suitable management of onsite waste water. Environmental and operational conditions over the past year have limited the opportunity to undertake this scope of work and Origin will look to better conditions in the coming year to complete this work.

## 7 Environmental performance

**Table 7.1 Environmental performance<sup>1</sup>**

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 License.	Achieved	None	-	-
	To ensure that dust resulting from the sites operations is minimized.	Achieved	None	-	-
Water quality and sediment control	To minimize 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	-	-
	No degradation of paddocks receiving irrigation.	Achieved	None	-	-

<sup>1</sup> Table 7.1 identifies requirements under the UPS environmental management plan. See appendix A for all DPE 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
Noise	Comply with noise limits of the DA and EPL.	Achieved	None	-	-
	Minimize noise impacts on the surrounding community from the sites operations.	Achieved	None	-	-
Visual amenity	To minimize visual impacts on the immediate, middle and broad view distances.	Achieved	None	-	-
	To ensure on-site lighting does not affect near neighbors.	Achieved	None	-	-
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	-	-
	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.	Achieved	None	-	-
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	-	-
	Manage vehicles to and from site in a manner which takes into consideration road safety and congestion on local roads.	Achieved	None	-	-

**Table 7.2 CEMS Data for Nitrogen Oxide Emissions**

mg/m3		Jan-23	Feb-23	Mar-23	Apr-23	May-23	Jun-23	Jul-23	Aug-23	Sep-23	Oct-23	Nov-23	Dec-23	Year End
Unit 11	Average	38	35	24	24	31	34	31	31	31	35	30	33	31.42
	Minimum	14	16	9	7	11	26	17	10	5	31	7	24	5
	Maximum	49	48	51	45	51	48	50	51	51	47	51	51	51
Unit 12	Average	24	23	29	17	28	31	30	30	31	34	26	30	27.75
	Minimum	7	8	7	7	7	29	7	9	7	19	6	18	6
	Maximum	46	44	44	47	45	43	46	49	47	45	46	43	49
Unit 13	Average	21	27	25	22	27	30	28	28	30	28	25	27	26.5
	Minimum	1	2	6	7	7	9	8	8	12	23	6	11	1
	Maximum	43	47	47	48	44	46	44	45	50	51	44	42	51
Unit 14	Average	22	27	25	22	24	32	29	27	29	30	25	26	26.5
	Minimum	6	8	4	5	4	9	7	8	8	24	9	20	4
	Maximum	38	46	40	40	50	41	45	42	41	46	51	47	51
Licence Limit		51 mg/m3 (100 Percentile), Reference conditions – Dry, 273K, 101.3kPa corrected to 15% O2												

**Table 7.3 CEMS Data for Nitrogen Dioxide and Calculated Annual NOx Emissions**

Unit	EIS modelled NOx (mg/Nm3)	Consent Limits (mg/m3)	Avg CEMS Data (mg/Nm3- 15 min average)		Calculated NOx Emissions (Tonnes)	
			2022	2023	2021	2023
11	51	51	19	31.42	11.4	20
12			30	27.75	13.4	12.7
13			27	26.5	13.6	29.1
14			21	26.5	11.7	25.3
Total					50.12	87.12

Annual stack testing was completed between 7 November and 8 November 2023 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 2023 Annual Stack Testing Results compared with 2004 EIS Predictions and 2023 Results**

Unit	Volume Flow (m³/sec)		Exit Velocity (m/sec)		Temperature (°C)	
	2022	2023	2022	2023	2022	2023
11	1200	1200	38	41	517	524
12	1200	1200	28	39	522	525
13	1200	1200	39	39	519	523
14	1200	1200	39	39	526	523
2004 EIS – All Units	1225		40.6		552	

**Table 7.5 UPS 2023 Storm Water Irrigation Water Quality Results Summary**

Storm Water Pond Irrigation Quality				
Parameter	Consent Limits	Average	Minimum	Maximum
Conductivity	800 uS/cm (Environmental License)	121	105	143
Parameter	OEMP Targets	Average	Minimum	Maximum
pH	6.5-9.5	8.1	6.2	9.4
Total Suspended Solids	100 ppm	9.2	5	20
Hydrocarbons	No Visual oil <10mg/L	2	<1	3
Chloride	mg/L	10.9	7.4	20.8
Sodium	mg/L	9.5	8.6	11.2

**Table 7.6 UPS 2023 Stormwater Pond Irrigation and Calculated Pollutants**

Stormwater Pond Irrigation On-Site					
Water Irrigated (mega-litres)		Salt Discharged (Kilograms)		Solids Discharged (Kilograms)	
2022	2023	2022	2023	2022	2023
1.44	6.3	123.3	564.3	6.7	55.8

**Table 7.7 UPS 2023 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 License)	132.8	78	205
Parameter	OEMP Target	Average	Minimum	Maximum
pH	7 – 9	8	7	9.2
Total Suspended Solids	100 ppm	14	3	30
Hydrocarbons	No Visual oil <10mg/L	2.3	1	4
Chloride	mg/L	10.8	5.2	18
Sodium	mg/L	9.6	5.19	12.3

## 8 Community

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

### 8.1 Community Participation Panel

Following the COVID-19 pandemic, the Community Participation Panel reformed in 2023. Communication was conducted via email and telephone when required, however, due to scheduling difference the first face to face meeting could only be held at the start of 2024. The UPS Community Committee was established in July 2014 and normally meets on a quarterly basis. The Committee is made up of:

- Three Community Representatives.
- UPS Site Manager.
- Origin Community Relations Officer; 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.

The following table presents the community engagement and contributions undertaken in 2023.

**Table 8.2.1 Community engagement and contributions**

Community engagement	Activities / initiatives	Community contributions
Uranquinty Public School	Partnership with Uranquinty Public School. Student Wellbeing initiatives, resources, activities and equipment.	\$30,000.00
Uranquinty Progress Association	Community Events Partnership with Uranquinty Progress Association	\$2,500.00
Uranquinty Tennis Club	Tennis Programs and equipment	\$5,000.00
Active Print	Printing of quarterly Uranquinty Newsletter for the year.	\$3,500.00
The Rock & District Meals on Wheels	Donation to The Rock & District Meals on Wheels towards the cost of environmentally friendly Food containers	\$2,000.00

Uranquinty Neighbourhood Centre	Repairs to Uranquinty Neighbourhood Centre walkway and garden wall	\$5,000.00
Country Women's Association	Country Women's Association activities and educational events	\$1,000.00
Wagga Autism Group	Autism Awareness support in the Uranquinty and Wagga areas	\$3,000.00
Preschool	Making storage container weather and vermin proof, adding shelving and lights for Uranquinty Preschool.	\$7,000.00
Quinty Men's Shed & Community Safety Group	Electrical work and installation of flood lighting to enable safer access to sandbags and other necessary equipment, quickly and safely particularly during an emergency and rescue which often happens in the dark or middle of the night.	\$8,500.00
Uranquinty Progress Association	Pavers at the pathway to the Uranquinty Water Tower and street signage directing visitors to the area from the main road.	\$3,000.00
Uranquinty Rural Fire Service	First Aid kits and thermal imaging cameras	\$ 9,217.00
<b>Complete Total</b>		<b>\$ 79,717.00</b>

## 9 Independent Audit

The next three yearly Audit is due in late 2024.

## 10 Incidents and non-compliances during the reporting period

No incidents or non-conformances were reported for 2023.

## 11 Activities to be completed in the next reporting period

As per Section 6 the following tasks are still in progress and will be undertake in 2024:

- **Ongoing:** Next phase of of works for this project includes engineering design, supplier selection and trial implementation for the storage pond water for recycling.
- **In progress:** Removal and disposal of residual sediment from within the current evaporation ponds. Origin will look to better conditions in the coming year to complete this work.

The following additional tasks are planned for 2024:

- Ongoing minor outages for GT11 and GT 12 in June 2024

## 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
<b>3. ENVIRONMENTAL PERFORMANCE</b>			
Air Quality Impacts	3.1 The Applicant shall design, construct, operate and maintain the development in a manner that minimizes dust emissions from the site.	Sealed roadways & gravel areas are maintained around site. Implementation & maintenance of the <i>Landscape Management Plan</i> on-site.	Yes
	3.2 The Applicant shall not permit any offensive odor, as defined under section 129 of the <i>Protection of the Environment Operations Act 1997</i> , 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 <sup>3</sup> (dry, 273K, 101.3kPA, 15% O <sub>2</sub> )	There were no NOx exceedances in this reporting period. Refer section 7.	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	<p>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.</p> <p>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.</p>	<p>Design of plant. Truck access hours in place.</p>	Yes
Operation Noise	<p>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.</p>	Noise monitoring was conducted by Sonus during April 2022 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 License 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.	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 millimeters thickness and with a permeability of no greater than $1 \times 10^{-9}$ 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 license issued by the NSW EPA. This condition only applies to wastes for which a license under the <i>Protection of the Environment Operations Act</i> or the <i>Environmentally Hazardous Chemicals Act 1985</i> 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 <i>AS4282(INT) 1995 – Control of Obtrusive Effects of Outdoor Lighting</i> .	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 kilometers 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
4. Environmental Monitoring & Auditing			

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Meteorological Monitoring	<p>4.1 From the commencement of any works on the site, the Applicant shall continuously monitor, utilising the meteorological monitoring station –</p> <ul style="list-style-type: none"> <li>Temperature</li> <li>Wind Speed</li> <li>Wind Direction</li> <li>Sigma Theta</li> <li>Solar radiation</li> </ul>	<p>Weather station data collection is occurring and data stored electronically on-site.</p> <p>Weather monitoring data is not provided with this report due to the large amount of data generated by the weather monitoring station.</p>	Yes
Air Quality Monitoring	<p>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 –</p> <ul style="list-style-type: none"> <li>Nitrogen dioxide (NO2) - Continuous</li> <li>Velocity - Annually</li> <li>Volumetric flow rate - Annually</li> <li>Temperature - Annually</li> <li>Moisture content in stack gases - Annually</li> <li>Dry gas density - Annually</li> <li>Molecular weight of stack gases - Annually</li> <li>Oxygen – Annually</li> <li>Carbon dioxide - Annually</li> </ul>	<p>Continuous Emissions Monitoring System (CEMS) is in operation and data is stored electronically on-site. CEMS data is summarised in Section 7.</p> <p>Annual Stack Emissions Testing (by external contractor) was completed, and results are in Section 7.</p>	Yes

Document 1:	DoPE - Development Consent –DA-31-2-2004-i		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
Noise Monitoring	<p>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.</p> <p>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).</p> <p>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.</p>	Noise monitoring was conducted by Sonus during April 2022 on all GT's.	Yes
Water Quality Monitoring	<p>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.</p> <p>Chloride Conductivity pH Sodium Total suspended solids</p>	Water quality monitoring 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	Yes
Environmental Management	6.1 – Environmental Representative 6.5 – 6.6 – Operational Environmental Management Plan	Refer Section 3 Site activities are undertaken as per the OEMP	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 license authorizes and regulates	A1.1 This license authorizes 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 315.75 GWh Refer Section 5.	Yes
<b>2. DISCHARGES TO AIR AND WATER AND APPLICATIONS TO LAND</b>			
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
<b>3. LIMIT CONDITIONS</b>			
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 was always available 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 April 2022 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 Licensed 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 licensed 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 Wastewater utilization areas must effectively utilize the wastewater applied to those areas. This includes the use for pasture or crop production, as well as ensuring the soil can 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 wastewater 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 license 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 authorized 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 license: (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.		

Document 2:	NSW EPA Environmental Protection Licence – 12490		
Aspect	Summary of Project Specific Environmental Conditions	Comments	Conformance
M2 Requirement to monitor concentration of pollutants discharged	For each monitoring/discharge point or utilization 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. 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	<p>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 license applies.</p> <p>M6.2 The record must include details of the following:</p> <ul style="list-style-type: none"> <li>(a) the date and time of the complaint.</li> <li>(b) the method by which the complaint was made.</li> <li>(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.</li> <li>(d) the nature of the complaint.</li> <li>(e) the action taken by the licensee in relation to the complaint, including any follow-up contact with the complainant; and</li> <li>(f) if no action was taken by the licensee, the reasons why no action was taken.</li> </ul> <p>M6.3 The record of a complaint must be kept for at least 4 years after the complaint was made.</p>	The avenues for making a complaint are provided in the OEMP. The Complaints Register for this reporting period is provided in Section 8.	Yes

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 authorized 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 license.		
	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.		
<b>6. REPORTING CONDITIONS</b>			
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 license 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 license holder; or (b) by a person approved in writing by the NSW EPA to sign on behalf of the license 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.		
<b>GENERAL CONDITIONS</b>			
G1 Copy of license kept at the premises	G1.1 A copy of this license must be kept at the premises to which the license applies.	Hard and electronic copies of the Environmental Licence are kept on-site.	Yes
	G1.2 The license must be produced to any authorized officer of the NSW EPA who asks to see it.		
	G1.3 The license must be available for inspection by any employee or agent of the licensee working at the premises.		