



AGL Energy Limited

T 02 9921 2999

F 02 9921 2552

agl.com.au

ABN: 74 115 061 375

Level 24, 200 George St

Sydney NSW 2000

Locked Bag 1837

St Leonards NSW 2065

Katrina O'Reilly
Team Leader – Compliance
Department of Planning and Environment
Level 16, 4PSQ
12 Darcy Street
Parramatta NSW 2150

BHB-AGL-HS-GEN-0113

12th July 2023

Dear Katrina,

SSD – 11437498: Extended working hours bimonthly report (April 2023)

AGL Energy Limited (**AGL**) received development consent under section 4.38 of the NSW *Environmental Planning and Assessment Act 1979* to construct the Broken Hill Battery Energy Storage System (**Project**) at Broken Hill, NSW on 8th September 2021. Following a request for modification of that development consent, revised conditions were granted by the Department on 15th July 2022 for SSD 11437498-Mod-1.

On 28th February 2023, the Department provided approval to undertake works as requested at the following times:

- Monday to Friday 7am to 6pm
- Saturday 7am to 6pm
- Sundays and NSW Public Holidays 8am to 1pm

As a condition of this approval, AGL provides the a bimonthly report as requested, which includes details of works undertaken and complaints received. This is attached for your reference. AGL notes that this report was due to be submitted on 30th June 2023 and apologises for the delay in this submission. This was an administrative error and a process has been implemented to ensure this does not occur in the future.

AGL intends to submit the next report by Friday 1st September 2023.

AGL takes its regulatory compliance responsibility seriously and is committed to good environmental practice. If you require any further information, please do not hesitate to contact Vicki Brady, Manager, Environment – Energy Hubs on VBrady@agl.com.au or 0499 304 473.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Hamid Shilani', written in a cursive style.

Hamid Shilani
Project Director – Broken Hill Battery Project
m: 0405 588 922
e: hshilani@agl.com.au



VALMEC

• Construct • Commission • Maintain

www.valmec.com.au



BROKEN HILL BATTERY ENERGY STORAGE SYSTEM

**OUT OF HOURS CONSTRUCTION WORK
DPE BI-MONTHLY PROGRESS REPORT**

Valmec Document No.:

4017-RPT-HS-001

Rev: 1



	Name	Title	Signature	Date
Originator:	K. Brown	HSE Manager		28/06/2023
Document Owner:	R. Green	Operations Manager East Coast		10/07/2023



TABLE OF CONTENTS

1	INTRODUCTION	3
1.1	PURPOSE	3
1.2	SCOPE	3
1.3	ROLES AND RESPONSIBILITIES.....	3
1.3.1	Project Manager and Site Manager	3
1.3.2	Site Supervisors.....	3
1.3.3	Workers.....	3
1.3.4	HSE Manager.....	3
1.4	DEFINITIONS.....	4
1.5	REFERENCES.....	4
2	PROGRESS REPORT – EXTENDED WORK HOURS	5
2.1	COMPLIANCE CONDITIONS WITH EXTENDED WORKING HOURS	5
2.2	PLANT AND EQUIPMENT USED FOR EXTENDED CONSTRUCTION WORK HOURS AND NOISE ASSESSMENT .	5
2.3	OPERATIONAL CONTROLS.....	5
2.4	PROGRESS OF THE PROJECT.....	6
3	COMPLAINT PROCESS FOR EXTENDED WORKING HOURS.....	6
4	CONCLUSION	6
	APPENDIX A – PLANT AND EQUIPMENT WORK BREAKDOWN STRUCTURE – NOISE CONTROLS	7
	APPENDIX B – REPORTING PERIOD CONSTRUCTION PROGRESS AND WEEKLY LOOKAHEADS.....	9
	APPENDIX B1 – CONSTRUCTION PROGRESS – APRIL 24TH – 7TH MAY	10
	APPENDIX B2 – CONSTRUCTION PROGRESS – MAY 8TH – 28TH MAY.....	11
	APPENDIX B3 – CONSTRUCTION PROGRESS – MAY 29TH – JULY 2ND.....	13
	APPENDIX D – COMPLAINTS REGISTER	16

1 INTRODUCTION

1.1 PURPOSE

To provide an *Out of Hours Work* (OOHW) Report to the Department of Planning and Environment (DPE) NSW every two months as specified in the approval letter which was received on the 28th of February 2023 by the DPE Director of Compliance.

The report is to detail the progress of the project and address any complaints received.

Note: This is the second bi-monthly report for the reporting period 28th April to 28th June 2023.

1.2 SCOPE

For construction work to be conducted from 7am to 6pm on Saturdays and 8am to 1pm on Sundays and NSW public holidays for work outside normal construction hours which is 6am to 5pm from Mondays to Fridays.

The increase is for the duration of the project.

1.3 ROLES AND RESPONSIBILITIES

1.3.1 Project Manager and Site Manager

- Overall responsibility for the implementation, monitoring and management of the extended work hours strategy inclusive of noise, vehicle movements and fatigue management.
- Compliance with all *working hours* within the boundaries of the development approval and consent for the project.
- Compliance with all *conditions* applied for working hours and associated activities within the development approval and consent for the project.

1.3.2 Site Supervisors

- Management of approved working hours within the prescribed time-frames.
- Management of all activities and noise controls within the prescribed time-frames.
- Management of vehicle movements and noise within the extended work hours.
- Evaluation and control of fatigue related risk factors with all workers on the project.
- Monitoring of compliance with noise and vehicle movements and evaluation of control measures.

1.3.3 Workers

- Compliance with the Extended Work Hours noise generation controls and vehicle movements.
- Management of change with noise and vehicle movement factors with associated controls.
- Identifying and reporting any potential or actual breach with noise generating activities and associated agreed controls.
- Monitoring self and others with noise generating activities.

1.3.4 HSE Manager

- Assist with the implementation of the Extended Work Hours Strategy.
- Evaluate, monitor and report effectiveness with Extended Work Hours Strategy.
- Assist with the management of any complaints, resolution, reporting and corrective actions from noise producing activities.

1.4 DEFINITIONS

Term	Meaning
BESS	Battery Energy Storage System.
dBA	Noise measurement in decibels.
dBC	Measure of the strength of an instantaneous signal at radio frequency . The dBC increment is based on the decibel, a logarithmic measure of relative signal strength.
DC	Development Consent. Approval and a license to operate for the project within the boundaries of the conditions within the DC.
EIS	Environmental Impact Statement
JHEA	Job Hazard Environmental Analysis
NMLs	Noise Management Levels within Construction.
OOHW	Out of Hours Work
PCBU	Person Conducting Business or Undertaking for or on behalf of an organisation. A person in control of the work environment.
Time Weighting Fast	125 metres per second in dBA and dBC
Time Weighting Slow	1 time per second in dBA and dBC
WBS	Work Breakdown Structure of Plant and Machinery Noise Levels.

1.5 REFERENCES

- BESS Development Consent - SSD-11437498 (as modified) – Schedule 3 condition 13 Construction, Upgrading and Decommissioning Hours
- SSD – 11437498: Request to Amend Construction Working Hours
- Broken Hill Battery Letter Extension of Working Hours BHB-AGL-CX-0040
- 4017-PLA-HSE-021 BESS Extended Work Hours Strategy and Noise Report
- BESS OOHW Approval Letter – DPE 28/02/2023
- 4017-PLA-HS-008 BESS Fatigue Management Framework Extended Work Hours
- Appendix A – Plant and Equipment Machinery Work Breakdown Structure – Noise Controls
- Appendix B – Reporting Period Construction Progress and Weekly Lookaheads
- Appendix C – Altrad Integrated Reporting (AIR) System
- Appendix D – Complaints Register
- Appendix E – BESS Fatigue Management Framework Extended Work Hours
- Appendix F – HSE Management and Operational Control Board – Daily Review and Sign On – Weekly RESET

2 PROGRESS REPORT – EXTENDED WORK HOURS

The following project report outlines current progress within the project and OOHW for the period between the 28th April to the 2nd of July.

The project consortium are managing noise related risks associated with the approved project controls for OOHW in context with planning considerations within the project life cycle and associated operational controls as specified within the approved submission by the consortium being the *4017-PLA-HSE-021 BESS Extended Work Hours Strategy and Noise Report*.

2.1 COMPLIANCE CONDITIONS WITH EXTENDED WORKING HOURS

The following conditions have been met during this reporting period with implementing and communicating the OOHW conditions and associated controls being:

- Machinery used during OOHW will only involve a pad roller, grader, 20-tonne and 6-tonne excavators, skid steer loader, truck and dog trailer and water cart;
- No pile driving, jack hammering, use of air compressors and delivery of materials that may disrupt local roads will occur during the OOHW; and
- A complaints register has been developed and implemented (Refer to Appendix C).

2.2 PLANT AND EQUIPMENT USED FOR EXTENDED CONSTRUCTION WORK HOURS AND NOISE ASSESSMENT

A detailed listing of equipment used within this reporting period for extended work hours and associated construction noise assessments from an initial baseline survey is detailed in *Appendix A – Plant and Equipment Work Breakdown Structure – Noise Controls*, and includes the following plant and equipment:

- 6 Tonne Excavator;
- 25 Tonne 320 Cat Excavator;
- Skid Steer Loader;
- Pad Roller;
- Truck and Dog Trailer; and
- Water Cart.

2.3 OPERATIONAL CONTROLS

The following operational controls have been established within the Extended Work Hours Strategy and Framework for implementation, monitoring, evaluating and controlling, which includes:

- Duties of a PCBU and persons in management and control of a workplace to understand and apply such duties as required by section 20 of the NSW WHS Act, inclusive of extended hours obligations and associated conditions.
- Noise generating activities and controls defined daily and weekly with operational controls documented on the Job Hazard Environmental Analysis (JHEA) with noise activities and monitored for compliance.
- Wind factors evaluated and monitored daily to establish wind direction, noise carry and associated controls.
- Noise assessments conducted for peak periods or noisy equipment to confirm boundary noise compliance.
- Controls with noisy activities complied with for Saturdays, Sundays and Public Holidays. Refer to *Section 2.1 Compliance Conditions with Extended Working Hours* of this report.



2.4 PROGRESS OF THE PROJECT

The reporting period includes Construction Weekly Lookaheads and overall progress with construction works and OOHW activities. Refer to *Appendix B – Reporting Period Construction Progress and Weekly Lookaheads*.

3 COMPLAINT PROCESS FOR EXTENDED WORKING HOURS

A complaint process has been established as detailed in the:

- 4017-PLA-GE-002 - Stakeholder Management Plan; and
- 4017-PLA-GE-003 - Regulatory Compliance Plan.

To confirm no complaints have been submitted within this reporting period for OOHW.

All complaints are formerly submitted within the Altrad Information Reporting (AIR) System and events recorded in the Project Complaints Register. Refer to:

- *Appendix C – Complaints Register*

4 CONCLUSION

The controls established for OOHW with construction activities have been communicated with the project workforce and integrated within the *4017-PLA-HS-008 BESS Fatigue Management Framework Extended Work Hours*.

Controls for OOHW activities are monitored and evaluated daily and weekly with operational controls which are documented and detailed within the workgroups *Job Hazard Environmental Analysis (JHEA)* which are formerly reviewed and RESET each Monday by each workgroup.

All JHEAs are aligned to Safe Work Method Statements, Permit to Works and are handwritten, verified, and approved by the Principal Contractor Valmec Australia Site Manager and Site HSE Manager to manage risk, opportunity, and change.

Such documentation is also verified daily by the onsite AGL client representative.

Valmec Australia submits this second report for OOHW and encourages any feedback from the Department of Planning and Environment to ensure the project is meeting all obligations as specified.

Kind Regards

Kester Brown

Health, Safety and Environmental Manager
Community Stakeholder and Relationship Manager
BESS Project – 74-80 Pinnacles Place Broken Hill
Valmec Australia Pty Ltd
M: 0419 418 507

Valmec acknowledges the Traditional Custodians of the lands and waters on which we operate. We continue to pay our respects to Elders past, present, and emerging. We respect their spiritual connection to Country and acknowledge their ongoing and important role in their community.



APPENDIX A – PLANT AND EQUIPMENT WORK BREAKDOWN STRUCTURE – NOISE CONTROLS

Activity	Equipment	Location	dBA Time Weighting Measurement Fast	dBA Time Weighting Measurement Slow	Comments
Boundary Noise Measurements with all plant and equipment operating within Construction Footprint.	<ul style="list-style-type: none"> 6 Tonne Excavator 25 Tonne 320 Cat Excavator Skid Steer Loader Pad Foot Roller Truck and Dog Trailer Water Cart 	North Boundary - Central Reading	51.1 dBA	50.3 dBA	Equipment and activities were focused on Area 1 of BESS at the time of the survey which is the North Eastern Half of Stage 1. The Pad Foot Roller and Water Cart were operating centrally to the project.
		North West Corner Boundary Reading	48.2 dBA	50.4 dBA	
		North East Corner Boundary Reading	64.9 dBA	72.4 dBA	
		East Boundary - Central Reading	68.9 dBA	60.0 dBA	
		South East Corner Boundary Reading	51.4 dBA	51.7 dBA	
		South Boundary - Central Reading	49.9 dBA	53.2 dBA	
		South West Corner Boundary Reading	47 dBA	50.5 dBA	
		West Boundary – Central Reading	47.9 dBA	50.5 dBA	
Boundary Noise Measurement from Outside of Construction Footprint.	All equipment in operation.	Outside of eastern Boundary 15 metres from Construction Fence line on North Eastern Side and eastern Side.	59.6 dBA	66.3 dBA	First Reading Taken on North Eastern side of boundary. Second Reading Taken Eastern Side of Boundary Centrally, with 6 Tonne Excavator reversing.
			57.4 dBA	61.7 dBA	



AGL – Broken Hill BESS Project
Out of Hours Construction Work Bi-Monthly Report



Activity	Equipment	Location	dBa Time Weighting Measurement Fast	dBa Time Weighting Measurement Slow	Comments
Earth Grid Trenching	6 Tonne Excavator	South East of Area 1.	69.1 dBA 78 dBA (Reversing)	73.9 dBA 80 dBA (Reversing)	Reading taken 8 metres from Excavator Operating. Second reading with Excavator reversing with Squawker on.
Excavations for Control Room	25 Tonne 320 Cat Excavator	North East Corner of Area 1.	65.4 dBA	74.1 dBA	Reading taken 12 metres from Excavator Operating on N/E Corner Boundary.
Installing Bedding Sand in Trenches	Skid Steer Loader	South East of Area 1.	67.7 dBA 74.5 dBA	70.0 dBA 77.8 dBA	First reading taken 6 metres from operations. Second reading taken 2 metres from operations.
Pad Foot Rolling Operations with Vibration on	Pad Foot Roller	Operating North to South in Stage 1 Area 2.	76.9 dBA 76.0 dBA	82.3 dBA 79.0 dBA	First reading taken 2 metres from operations. Second reading taken with Vibration on 4 metres from operations.
Bedding Sand Delivery	Truck and Dog Trailer	Operating North to South Stage 1 in Area 2.	63.8 dBA	67.4 dBA	Reading taken 4 metres from operations.
Water Cart Operations	Water Cart	Operating North to South Stage 1 in Area 2. Hand watering in area 1, due to limited access.	51.6 dBA	53.8 dBA	Reading taken 4 metres from operations.



AGL – Broken Hill BESS Project
Out of Hours Construction Work Bi-Monthly Report



APPENDIX B – REPORTING PERIOD CONSTRUCTION PROGRESS AND WEEKLY LOOKAHEADS

The following construction schedules outline activities with project progress aligned with OOWH conditions and include the following periods:

- April 24th – 7th May
- May 8th – 28th May
- May 29th – 2nd July



AGL – Broken Hill BESS Project

Out of Hours Construction Work Bi-Monthly Report



APPENDIX B1 – CONSTRUCTION PROGRESS – APRIL 24TH – 7TH MAY

BESS - Construction Activity Schedule - April 24th - 7th May 2023						curent wk start and end		lookahead 2 week 29							lookahead 3 week 30									
item	ZONE	Major Event	WP#	Task	Detail	%	%	start	end	m	t	w	t	f	s	s	m	t	w	t	f	s	s	
								24	25	26	27	28	29	30	1	2	3	4	5	6	7			
1	Area One	Excavation of trenches for Bedding Sand																						
2				Complete Drilling for Light mast T2 and T5		0	0																	
7		Earthing Cables	E	Excavate and install area 1A backbone as priority (after all conduits placed)	Ongoing	80	0																	
8			E	Terminate earth leads to control buildings		7	0																	
9		<u>Equipment Installation</u>				0																		
10		<u>Transformers x6</u>		Transformer bolt into position. conduits encasement outstanding	Design review reqd	0	0																	
11		RMU x 1		Placement		0	0																	
22				Remove construction power supplies from Control building		0	0																	
23	Area TWO	Excavation / bedding trenches																						
35				Markout and drill holddown bolts		30	0																	
38		<u>Transformers x 6</u>		Transformer placement, conduits encasement outstanding	Design review reqd	0	0			T10	T11													
39		Invertor		Placement..... after cable pull between battery and Invertor		0	0																	
41		RMU 2 and 3		Placement	after cable pull ?	0	0																	
45		Cable Pulling		Transformer to transformer and terminate same		0	0																	
47				From Pads through culverts		0	0																	
48		Other for both areas and Stages		Remove East and West Fence and compact new fence line	Start fence erect	0	0																	
50				Bollards /Lighting&CCTV Towers / site demob		0	0																	
51				Upgrade temp swale to south boundary and maintain same		0	100																	
52				<u>Battery cube delivery , 8 units per load for area 1</u>	awaiting FSNSWR	0	0																	
53	STAGE 2	Transmission Corridor																						
54			Zone 1	Engage RAP representatives onto site	on standdown	50																		
				HOLD Review all Approvals and Conditions	Hold on all works																			
56				Install sediment control fence and cutoff drains	high priority	80	0																	
57				Survey first trench location and markout		0	0																	
58				Complete any underground and overhead service locations and markups		90	0																	
				Complete Haul road and stockpile areas.		5																		
59				Excavate road and creek crossings and place bedding material		0	0																	
64				Clear fence line and erect fencing include Insulation Panels	ON Hold 13/3	0	0																	



AGL – Broken Hill BESS Project

Out of Hours Construction Work Bi-Monthly Report



APPENDIX B2 – CONSTRUCTION PROGRESS – MAY 8TH – 28TH MAY

BESS - Construction Activity Schedule - May 8th - 28th May 2023					current wk start and end		lookahead 2 week 31							lookahead 3 week 32					lookahead 4 week 33									
Item	ZONE	Major Event	WP#	Task	Detail	start %	end %	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s
1	Area One	Excavation																										
2			gte	East fence line for subbase compaction	Proof Roll	0	0																					
3		Installation of Conduits	comlek	Continue zone 1A conduit installs across to switch yard		50	0																					
4		Backfill Conduits	gte	Complete Area 1A across to switchyard to 80% {SY piers	RMU final outstanding	75	0																					
5		SwitchYard	C	Ground Prep for Stage 2 conduit install	then excavate 4 condu	0	0																					
6			cfe/vertex	Erect Steel Work		0	0																					
7		Lighting Tower	jamtek	Pour foundation piles	Requires signoff	0	0																					
8		Earthing Cables	E	Excavate and install area 1A backbone as priority (after all conduits placed)	Ongoing into Switchyard	80	0																					
9			E	Terminate earth leads to control buildings		7	0																					
10		Permanent Fence Erection		Site mobilisation and commence with East fence		0	0																					
11	EQUIP INSTALL	Transformers x6	Mech	Transformer bolt into position. conduits encasement outstand	Design review reqd	0	0	T5	T4						T1	aux												
12		RMU x 1	cfe	Placement		0	0																					
13		Cable Pull	Vertex	RMU across to 22KV switch		0	0																					
14		Busduct	Cfe	Install support frames	Trial first	0	0																					
15		Cable Terminations	vertex	Control room glanding and terminations		45	0																					
16			vertex	AC cable terminations/ Transformers/ RMUS		0	0																					
17			cfe	Install buzz bars and sun shields Invertors to Transformers		0	0																					
18		Commissioning	Fluence	Earthgrid performance tests prior to ECC connection	Stage 1 prelim	0	0																					
19			vertex	Fibre connection, install pits, splicing , testing 15 May	TNT King	0	0																					
20			vertex	22Kv Cable termination		0	0																					
22	Area TWO	Excavation																										
23				complete excavation / conduits to culverts to 22KV Switch	code 2 critical path	75	0																					
24				Markout and excavate B45 and b46 edge beam conduits		50	0																					
25		Installation of Conduits	E&C	Flexibles into culverts.	GTE	85	0																					
26		Earthing Cables	E & C	Excavate and install area 2B , 2C ,2A between battery pads.		30	0																					
28				First pour followed by wall and plinth sequence		0	0																					
29		Battery precast foundation		Install precasts		0	0																					
30				Markout and drill holddown bolts		30	0																					
31		RMU 3		Blinding ,formwork and concrete in situ		0	0																					
32		Culverts		Place blinding/ install / core drill /tape joints /haunch		0	0																					
33		Permanent Fence Erection		West Boundary fence erection before final swale formation.	On HOLD 24/4	0	0																					
34	EQUIP INSTALL	Transformers x 6		Transformer survey and height adjustment	Repair Review reqd	0	0																					
35		Invertor		Placement..... major cable pull between battery and invertor complete		0	0																					
36				Install buzz bars and buzz ducts		0	0																					
37		RMU 2 and 3		Placement	after cable pull ?	0	0																					
38		CRT		Install onto pad B35 thru to and including B46		0	0																					
39		Cable Pulling		Control and data to control room		0	0																					
40				Invertor to battery pad control loops	After 45/46 landed	0	0																					
42		Other for both areas and Stage		Remove East and West Fence and compact new fence line	On HOLD 24/4	0	0																					
43				Reset temp swale to west fence line	RAPS reqd	0	0																					
44				Bollards /Lighting&CCTV Towers / site demob		0	0																					
46				Replace dessicant Bags in Invertors	review spreadsheet	0	0																					
47				Upgrade temp swale to south boundary and maintain same		0	100																					
48				Battery cube delivery . 8 units per load for area 1	awaiting FNSWR	0	0																					



AGL – Broken Hill BESS Project

Out of Hours Construction Work Bi-Monthly Report



BESS - Construction Activity Schedule - May 8th - 28th May 2023						current wk start and end		lookahead 2 week 31							lookahead 3 week 32					lookahead 4 week 33								
						start	end	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s
Item	ZONE	Major Event	WP#	Task	Detail	%	%	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28
49	STAGE 2	Transmission Corridor			confirm drg IFC	0	100																					
50				Confirm bedding sand supply type	0.75 TR in conduits	45																						
51				Complete Cure Plan		25																						
52				Complete Project area remediation and revegetation plan	Draft dependant on response																							
53				Review and update Site Controls and Environmental ITP		25																						
54				Reset sediment controls on south fence line of old Project Area	On HOLD 24/4																							
55				Review all Approvals and Conditions/work methodology	ITP to be signed off																							
60			Zone 1	Re - Engage RAP representatives onto site	On standdown	50	0																					
61				Environmental Manager to lead Kickstart meeting																								
62				Erect star pickets and bunting to construction battery limits	.53ha/ approx 16 m max	20	0																					
63				Install sediment control fence - south side	high priority	65	0																					
63				Survey first trench location and markout		0	0																					
				Grade 4 meter access track and windrow																								
64						0	0																					
66					wind row for later cover	5	0																					
65				Clear vegetation and Excavate from 22kv switchyard to dirt track	Spoil off site	0	0																					
69				Final survey and place bedding sand/ conduits		0	0																					
70			Zone 2&3	Document and lodge application for excavation permits		50	0																					
71				Complete pot holing and earthgrid identification		50	0																					
72				Complete all underground and overhead service locations and markups		0	0																					
73				Formup Haul road beside trench corridor at 5 meter wide using grader to windrows		0	0																					
74				Bulk excavation at pull pits	wind row for later cover	0	0																					
75				Excavate open trench and install bedding sand/conduits		0	0																					
76			All Zones	Pull in Data & Earth & 22kv cables [thru conduits]		0	0																					
77				Install Data termination pits		0	0																					
78				final Backfill to trench		0	0																					
79				Excavate open trench number 2 and install conduits and backfill		0	0																					
80				Pull in D/E/&P cables [thru conduits]		0	0																					
81				Backfill to trench no 2		0	0																					
82				Redistribute seeded top soil include segegated creek crossings material.		0	0																					



AGL – Broken Hill BESS Project Out of Hours Construction Work Bi-Monthly Report



APPENDIX B3 – CONSTRUCTION PROGRESS – MAY 29TH – JULY 2ND

BESS - Construction Activity Schedule - May 29th - July 2nd 2023					start and end	lookahead 4 week 34	lookahead 1 week 35	lookahead 2 week 36	lookahead 3 week 37	lookahead 4 week 38																																
Item	ZONE	Major Event	WP#	Task	Detail	start %	end %	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s
1	Area One	Excavation				0	0																																			
2		Installation of Conduits	Gte	22kv transmission line Incomers trench for 200 dia conduit		50	0																																			
3		Backfill Conduits	JAMTEK	Continue zone 1A conduit installs across to switchyard		75	0																																			
4		Switchyard	Gte	Complete all Area 1A switchyard backfilling	RMU final outstanding	0	0																																			
6		Lighting Tower	CFE/Vertex	Erect Steel Work		0	0																																			
7		Earthing Cables	Jamtek	Pour foundation piles	Requires signoff	0	0																																			
8		Permanent Fence Erection	E	Excavate and install area 1A backbone as priority (after all conduits placed)	Ongoing into Switchyard	80	0																																			
9		Equip INSTALL	E	Terminate earth leads to control buildings		7	0																																			
10		Transformers x 6		Site mobilisation and commence with East fence		0	0																																			
11		RMU x 1	Mech	Transformer bolt into position. conduits encasement outstanding	Design review reqd	0	0																																			
12		Cable Pull	CFE	Placement		0	0																																			
13		Busduct	Vertex	RMU across to 22KV switch		0	0																																			
14		Battery	CFE	Install support frames and complete all connections	Trial first	0	0																																			
15		Cable Terminations		Final Inspections and signoff		0	0																																			
16		Battery		Install Buzz connections		0	0																																			
17		Cable Terminations		Battery to battery connections -Plug and Play		45	0																																			
18		Commissioning	Vertex	HV cable terminations/ Transformers/ RMUS		0	0																																			
20		Commissioning	Fluence	Earthgrid performance tests prior to ECC connection	Stage 1 prelim	0	0																																			
21		Commissioning	Vertex	Fibre connection, install pits, splicing , testing 15 June	TNT King	0	0																																			
22		Commissioning	Vertex	22Kv Cable		0	0																																			
23		Commissioning	Vertex	Remove construction power supplies from Control building		0	0																																			



AGL – Broken Hill BESS Project

Out of Hours Construction Work Bi-Monthly Report



BESS - Construction Activity Schedule - May 29th - July 2nd 2023					start and end		lookahead 4 week 34							lookahead 1 week 35							lookahead 2 week 36							lookahead 3 week 37							lookahead 4 week 38															
Item	ZONE	Major Event	WP#	Task	Detail	start %	end %	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	m	t	w	t	f	s	s	
24	Area TWO	Excavation																																																
25				Conduits to culverts for control cabling to 22KV Switch	critical activity	75	0																																											
26				Markout and excavate B45 and B46 edge beam conduits		50	0																																											
27		Installation of Conduits	GTE	Flexibles into culverts.	GTE	25	0																																											
28		Earthing Cables	E & C	Complete /Excavate and install area 2A between battery pads.		75	0																																											
29		Foundation for Transformers		Insitu formwork to be erected & complete first pour	T11	10	0																																											
31		Battery precast foundation		Install precasts		0	0																																											
32				Markout and drill holddown bolts		30	0																																											
33		RMU 3		Install into place		0	0																																											
34		Culverts		Grout in flexibles /fit cable ladder /haunch		0	0																																											
35		Permanent Fence Erection		West Boundary fence erection before final swale formation.	On HOLD 24/4	0	0																																											
36	EQUIP INSTALL	Transformers x 6		Transformer survey and height adjustment	Repair Review reqd	0	0																																											
37		Invertor		Placement including Cable pull between battery and invertor		0	0																																											
38				Install buzz bars and buzz ducts		0	0																																											
39		RMU 2 and 3		Placement	after cable pull	0	0																																											
40		CRT		B45 B46 installation and cable terminations to same.		0	0																																											
41		Battery Cubes		Placement of 48 into position		0	0																																											
42				Complete all connections		0	0																																											
43		Cable Pulling		Power ,Control and data to control room		0	0																																											
44				Invertor to battery pad control loops	After 45/46 landed	0	0																																											
45		Cable Terminations		T6 through to T11 Invertor		0	0																																											
46				Control Roomboth power and control cabling		0	0																																											
47		Additional tasks to capture for both Areas and Stages				0	0																																											
48				Reset temp swale to west fence line	RAPS reqd- on HOLD	0	0																																											
49				Bollards /Lighting&CCTV Towers / site demob start		0	0																																											
50				UPS delivery to site	END of JUNE	0	0																																											
51				Update landowner on fence construction start date	review spreadsheet	0	0																																											
52				Upgrade temp swale to south boundary and maintain same	close south entry point	0	100																																											



AGL – Broken Hill BESS Project

Out of Hours Construction Work Bi-Monthly Report



BESS - Construction Activity Schedule - May 29th - July 2nd 2023				start and end	lookahead 4 week 34	lookahead 1 week 35	lookahead 2 week 36	lookahead 3 week 37	lookahead 4 week 38																												
Item	ZONE	Major Event	WPH	Task	Detail	start %	end %	m	t	w	t	f	s	m	t	w	t	f	s	m	t	w	t	f	s	m	t	w	t	f	s	m	t	w	t	f	s
53	STAGE 2	Transmission Corridor		Confirm two trench option and update detailed drawings	confirm drg IFC	0	80																														
54				Complete trench constructability -----review exclusion zone dimensions	0.75 TR in conduits	45	45																														
55				Modified Area Cure Plan re submission and final approval	Modification required	25	0																														
56				Assemble Project area remediation and revegetation plan	Draft dependent on response	0	0																														
57				Review and update Site Controls and Environmental ITP		75	0																														
58				Re survey battery Limits and enter all survey data into model	Exclusion Zone t/b Included	75	0																														
59				Reset sediment controls on south fence line of old Project Area	On HOLD 24/4	0	0																														
				Remove temp fence and remediate area of original Project Area.	Contact DPE																																
60				Review all Approvals /Conditions/ design reviews/work methodology	ITP to be signed off	10	0																														
61				Remedial works to 40 meter boundary- On HOLD	BB to Contact DPE	0	0																														
62		Zone 1		Re - Engage RAP representatives onto site	On standdown	50	0																														
63				Environmental Manager to lead Kickstart meeting	Daily Event ongoing	100	0																														
64				Complete approvals with Essential Energy for trench proximity.		100	0																														
65				Clear weeds prior to vegetation clear at 4 meter plus.	.59ha/approx 16 m max	20	0																														
67				Install sediment control fence - south side	high priority	65	0																														
68				Survey first trench location and markout		0	0																														
69				Install all signage and advise Essential Energy of works start for inspection	Daily Kickstart meetings	0	0																														
70				Grade 4 meter access track and windrow		0	0																														
71				Excavate trench /import fill / backfill immediately																																	
72				Excavate trench (rough out) into 22kv Switchyard and install conduits		0	0																														
73				Lay out conduit stringers and glue	Spoil off site	0	0																														
74				Final survey and replacement of topsoil from windrow		0	0																														
75			Zone 2&3	Document and lodge application for excavation permit extension		50	0																														
76				Continue pot holing and earthgrid identification		50	0																														
77				Complete all underground and overhead service locations and markout	Bill to survey all	0	0																														
78				Install all signage and advise Essential Energy of works	OH power cables are extremely	0	0																														
79				Bulk excavation and benching at termination to transgrid	wind row for later cover	0	0																														
				Bulk excavation and civil works for pond stabilisation.																																	
				Return pond to operational mode and gain signoff																																	
				Stockpile excess excavated pond material inside project area for reuse from Pond.																																	
80				Reshape pond and complete compaction of same in prep for trenching	requires final clearance	0	0																														
81				Excavate 50 m open trench and install bedding sand/conduits		0	0																														
82				Backfill and compact /install hard barriers		0	0																														
83		All Zones		Setup earth cable reeler and layout HDPE fiber duct		0	0																														
84		All Zones		Pull in Data & Earth & 22kv cables [thru conduits]		0	0																														
85				Install Data termination pits		0	0																														
86				Final Backfill to trench		0	0																														
87				Excavate open trench number 2 and install conduits and backfill		0	0																														
88				Pull in D/E/&P cables [thru conduits]		0	0																														
89				Backfill to trench no 2		0	0																														
90				Redistribute seeded top soil include segregated creek crossings material.		0	0																														



AGL – Broken Hill BESS Project
Out of Hours Construction Work Bi-Monthly Report



APPENDIX D – COMPLAINTS REGISTER

NOTE: No complaints have been reported within this reporting period or previous period.

AIR Event No.	Date Reported	Complainant Source	Complaint Type and Detail	Corrective Action(s)	Responsible Person(s)	Actions Due Date	Actions Closed Date