



Plant Maintenance HSE Manual

Incorporating the Operational Environmental Management Plan

Broken Hill Solar Plant

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HSE Manual Receipt and Acknowledgment Form (form FS-HSE-IP-4)

Please complete this form, remove it from your manual, and return it to your supervisor to file.

I have received a copy of the Health, HSE & Environment (HSE) Manual.

I understand that I am responsible for reading this Manual and understanding the policies and work rules described within it.

I understand that the information contained in this HSE Manual may be added to, deleted or changed by the Company at any time. I understand that neither this HSE Manual nor any other written or verbal communication is intended to, in any way, create a contract of employment.

If I have any questions regarding the content or interpretation of this manual, I will bring them to the attention of my supervisor, Site Supervisor/Designee, or HSE Department.

Name (please print): _____

Signature: _____

Date: _____

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Environmental Health & HSE Manual Approval

This Manual was prepared for employees, contractors, subcontractors and visitors performing a specific, limited scope of work. It was prepared based on the best available information regarding the environment, health, HSE, plant, equipment and other physical hazards known or suspected to be present on the Broken Hill Solar Farm Site.

While it is not possible to discover, evaluate, and protect in advance against all possible hazards, which may be encountered during the operation of this project, adherence to the requirements of this manual will significantly reduce the potential for occupational illness and injury.

By signing below, I acknowledge that I have reviewed and hereby approve the Health, HSE & Environment Manual. The plan is written for specified site conditions, dates, and personnel, and must be amended if these conditions change.

Compiled by:

Turlough Guerin



28/11/2015

Environmental Manager

Date

Approved by:

Frank Teofilo



03/17/2021

Director Operations

Date

REVISION LOG

Revision Number	Revision Date	Release Date	Description of Change
0	22/3/15		Based on Nyngan EHS Manual
1	15/8/15		Numerous alterations
2	1/6/16		Revised to include all C4 consent requirements
3	31/08/16		Revised to address ER comments provided on 2/8/2106
4	14/09/2016		Revised to address comments from AGL provided on 07/09/2016
5	27/10/2016		Revised to address comments from DPE provided on 17/10/2016
6	06/11/2018		Former EHS manual content pulled into separate HASP and ECM
7	03/07/2019		Added document flow-chart
8	14/08/2019		Added ERP to flow-chart
9	15/03/2021		Reverted to old format (with no HASP updates); Added Cultural heritage items

1 Introduction

1.1 Purpose

First Solar is to ensure its personnel, contractors and visitors are provided guidance and awareness relating to the Health, Safety & Environment (HSE) management at the Broken Hill Solar Plant (the Site). It is for this reason this manual has been developed to ensure that all personnel on Site are aware of the Health, Safety & Environment controls that apply to their daily activities.

The information in this manual provides First Solar employees, its contractors and visitors with HSE requirements and work rules for conducting business on site.

A copy of this manual shall be maintained on the site and be available for review at all times. In the event of a conflict between information in this manual and that of local regulations, personnel shall follow the most stringent/protective requirements.

Nothing in this manual shall alter an employee's or contractor's status or infringe on their rights.

First Solar retains the right to suspend, stop work or dismiss any employee, contractor (or their respective employees) or visitor from the site for any infraction of this manual.

1.2 Scope

This HSE Manual has been established to ensure that all Maintenance activities, which may have an impact on Occupational Health and Safety and Environmental aspects (or HSE), are carried out in a manner that meets or exceeds the intent of the:

- Work Health & Safety Act 2011;
- First Solar HSE Policy and associated corporate requirements;
- AGL HSE Policy;
- Project Development Consent under Section 89E of the Environmental Planning and Assessment Act (1979); and
- Relevant legislation and guidelines applicable to operational activities

This manual applies to all O&M activities undertaken by First Solar employees, contractors and visitors (of any tier), on behalf of AGL PV Solar Developments Pty Ltd (Owner).

This manual identifies potential impacts and HSE risks related to maintenance activities conducted within the Site. The company recognizes that it is impossible to provide a rule to cover every possible task and therefore provides guidance in identifying, assessing and addressing potential safety hazards through the Job Hazard Analysis (JHA) process.

Refer to AGL OEMP Section 5 for comprehensive list of legislative requirements as well as a list of all licenses, approvals and consultations.

1.3 Approval Conditions

The Approval Conditions for the Operational & Maintenance (O&M) stage for the Broken Hill Solar Plant are determined in Condition C4 of the project approval determination SSD-5355. Further details of how First Solar and AGL will achieve compliance with C4 and O&M Conditions of Approval are provided in Table 6.5.1. Refer to Appendix C for specific responsibilities for Approval Conditions and OEMP Management Actions.

1.3.1 OEMP Approval Consent Condition (C4)

In line with section 89E of the Environmental Planning and Assessment Act 1979 this Operational Environmental Management Plan (OEMP) or manual, has been developed to satisfy Condition C4, whereby the Owner shall prepare and implement an OEMP that shall include but not necessarily be limited to:

- (a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the project, including all consents, licences, approvals and consultations;*
- (b) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project;*
- (c) overall environmental policies to be applied to the operation of the project;*
- (d) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically monitored, reviewed and improved, (where appropriate) and what actions would be taken in the case that non-compliance with the requirements of this approval are identified. In particular the following environmental performance issues shall be addressed:*
 - (i) bushfire hazard and risk management;*
 - (ii) management and maintenance of offsets;*
 - (iii) inspection, monitoring and maintenance of all watercourse crossings;*
 - (iv) management measures for the site, including management of vegetation, soil erosion, dust weed control and landholder liaison.*
- (e) the environmental monitoring requirements outlined under this approval;*
- (f) measures to monitor and manage flood impacts in consultation with NOW;*
- (g) information on water sources;*
- (h) complaints handling procedures as identified in conditions C13 to C15;*
- (i) specific consideration of relevant measures to address any requirements identified in the documents referred to under conditions A2b) and A2c) of this approval; and*
- (j) management policies to ensure that environmental performance goals are met and comply with the conditions of this approval.*

In addition, further environmental compliance obligations and management actions required for the O&M stage are detailed in the responsibilities and management actions in Section 4, 6.5.1 and Appendix C of this Manual.

1.3.2 Operational Approval Consent Conditions

The following table identifies where each of the requirements listed under Development Condition A2, C4, and C13-C15 has been addressed within the First Solar EHS Manual and OEMP.

Consent Conditions	Section of EHS Manual and OEMP where addressed
A2 Terms of Consent (referred to in C4)	
Part A. Terms of Consent. A2. Terms of Consent (referred to in C4 above): The proponent shall carry out the development generally in accordance with the EIS and Submissions Report.	This EHS Manual and OEMP & Appendices
Part A. Terms of Consent. A3. Terms of Consent. If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this consent prevail to the extent of any inconsistency.	This EHS Manual and OEMP & Appendices
Part A. Administrative Conditions. A7. Structural Adequacy. The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA.	CEMP This EHS Manual and OEMP: Sections 4 & 5.1.1
Part A. Administrative Conditions. A8. Decommissioning. Within one year of decommissioning, the site shall be returned, as far as practicable, to its condition prior to the commencement of construction in consultation with the relevant landowner. All solar panels and associated above ground structures including but not necessarily limited to, the control and facilities building and electrical infrastructure, including underground infrastructure to a depth of 300 millimetres, shall be removed from the site unless otherwise agreed by the Director-General in consultation with the relevant landowner, except where the control room or overhead electricity lines are transferred to or in the control of the local electricity network operator. All other elements associated with the development, including site roads, shall be removed unless otherwise directed by the Director-General.	Sections 5, 6.5.4, 6.5.5, 6.5.7 & 8.32
Part A. Administrative Conditions. A9. Decommissioning. If the solar plant is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the Director-General. The Applicant shall keep independently-verified annual records of the use of the solar panels for electricity generation. Copies of these records shall be provided to the Director-General upon request. The solar panels and any associated infrastructures are to be dismantled and removed from the site by the Applicant within 18 months from the date that the solar panels were last used to generate electricity.	Sections 5.7 & 8.32
Part A. Administrative Conditions. A12. Compliance. The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this consent relevant to their respective activities.	Sections 4 & 4.9
Part A. Administrative Conditions. A13. Compliance. The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	Sections 4.3, 4.4 & 4.5
Part B. Environmental Performance, General Conditions B2. Decommissioning and Rehabilitation. The site of all ancillary facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the relevant landowner.	Sections 6.5.4, 6.5.6, 6.5.7 & 6.5.8
Part B. Environmental Performance, General Conditions B3. Bushfire Risk. The Applicant shall ensure that all development components on site are designed, constructed and operated to minimise ignition risks, provide for asset protection consistent with relevant NSW Rural Fire Services (RFS) design guidelines (Planning for Bushfire Protection 2006 and Standards for Asset Protection, 2006) and provide for necessary emergency management including appropriate fire-fighting equipment and water supplies on site to respond to a bush fire.	Section 6.5 & Section 8.5
Part B. Environmental Performance, General Conditions. B4. Bushfire Risk. Throughout the operational life of the development, the Applicant shall regularly consult with the local RFS to ensure its familiarity with the development, including the construction timetable and the final location of all infrastructures on the site.	Section 6.5 & Section 8.5

Consent Conditions	Section of EHS Manual and OEMP where addressed
The Applicant shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.	
Part B. Environmental Performance, General Conditions B5. Dangerous Goods. Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with: a) all relevant Australian Standards; b) for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and c) the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.	Section 8.22
Part B. Environmental Performance, General Conditions B6. Dust Generation. The Proponent shall construct and operate the project in a manner that minimises dust generation from the site, including wind-blown and traffic-generated dust as far as practicable. All project related activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should visible dust emissions attributable to the project occur during construction and operation, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works during construction, planting ground covers, using dust suppressants as appropriate, such that emissions of visible dust cease.	Section 6.5.5
Part B. Environmental Performance, General Conditions B7. Water Quality Impact. Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the Protection of the Environment Operations Act 1997 which prohibits the pollution of waters.	Section 6.5.2
Part B. Environmental Performance, General Conditions B11. Waste Management. All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Section 8.21 & 8.22
Part B. Environmental Performance, General Conditions B12. Waste Management. Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the Protection of the Environment Operations Act 1997, if such a licence is required in relation to that waste.	Section 8.21 & 8.22
Part B. Environmental Performance. General Conditions B13. Waste Management. All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with Waste Classification Guidelines (Department of Environment, Climate Change and Water, 2009), or any superseding document.	Section 8.21 & 8.22
Part B. Environmental Performance, General Conditions B14. Utilities and Services Utilities. Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Project shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.	Section 4.1, 6.5.11 & 6.5.12 Refer to AGL OEMP Section 6.6 and Appendix D Community Consultation Plan
Part B. Environmental Performance, General Conditions B17. Fauna Impacts. The Applicant shall design, construct and operate any overhead transmission line connection to the electricity grid with consideration to reasonable and feasible mitigation measures that can be employed to minimise the risk of bird and bat strike into electricity wires.	Refer to Broken Hill Solar Plant Pre Operational Compliance Report
Part B. Environmental Performance, Visual Amenity B18. Landscaping Requirements. Within six months of the commissioning of the project, the Proponent shall prepare and submit a Visual Impact Verification Report for the Director-General's approval. Unless otherwise agreed to by the Director-General, the Visual Impact Verification Report shall confirm the visual impacts at each of the receptors and roadways identified in the Environmental Assessment as having the potential to be 'highly impacted', considering the final model and layout of generating components on site as well as site specific mitigating factors at the receptors and roadways (such as receptor orientation and intervening screening factors). The Visual Impact Verification Report shall identify all reasonable and feasible screening and landscape planting options available at each receptor and roadways at which potential impacts have been verified to be 'high' including	Section 6.5.4 and 6.5.7 Refer to Broken Hill Solar Plant Pre Operational Compliance Report (Appendix E Visual Impact Verification Report (VIVR))

Consent Conditions	Section of EHS Manual and OEMP where addressed
demonstration that these measures have been determined in consultation with affected receptors and relevant road authorities.	
Part B. Environmental Performance, Visual Amenity B19. Landscaping Requirements. Within 18 months of the approval of the Visual Impact Verification Report by the Director-General (or as otherwise agreed to by the Director-General), the Proponent shall ensure that the measures identified in the Report are implemented at affected receptors and roadways as identified in the Report in consultation with the Crown Lands Division of the Department of Trade and Investment, other relevant residents/landowners and road authorities.	Section 6.5.4 and 6.5.7 Refer to Broken Hill Solar Plant Pre Operational Compliance Report
Part B. Environmental Performance. Visual Amenity B21. The Proponent shall implement a revegetation and rehabilitation program for all areas of the project footprint which are disturbed during the construction of the project but which are not required for the ongoing operation of the project including temporary construction facility sites and sections of construction access roads. The Proponent shall ensure that all revegetation measures are implemented progressively where possible and in all cases within six months of NSW Government 10 Department of Planning and Infrastructure the cessation of construction activities at the relevant area. Unless otherwise agreed to by the Director-General, the Proponent shall monitor and maintain the health of all revegetated areas until such time that the plantings have been verified by an independent and suitably qualified expert (whose appointment has been agreed to by the Director-General) as being well established, in good health and self-sustaining.	Section 6.5.4, 6.5.7 & 6.5.8
Part B. Environmental Performance. Noise - Operation B26. Operational Noise Criteria. The Proponent shall take all reasonable measures to minimise noise emissions and vibration from all plant and equipment operated on the site such that they do not exceed noise and vibration criteria derived by application of the NSW Industrial Noise Policy (DECC, 2000) and Assessing Vibration: A Technical Guideline (DECC, 2006).	Section 5.1.1, 5.3, 5.4 & 6.5.9
Condition C3 (referred to in C4 (e) Monitoring Requirements)	
Condition C3 (b)(iii). A Ground Cover Management Plan, developed in consultation with the Crown Lands Division of the Department of Trade and Investment an agronomist, to outline measures to ensure adequate vegetation cover and composition beneath the solar PV array. The Plan shall include, but not necessarily be limited to weed management measures to control and prevent the spread of noxious weeds	Section 6.5.4, 6.5.5, 6.5.6, 6.5.7 & Section 8.5.1
Condition C3 (b)(iv). A Ground Cover Management Plan, developed in consultation with the Crown Lands Division of the Department of Trade and Investment an agronomist, to outline measures to ensure adequate vegetation cover and composition beneath the solar PV array. The plan shall include but not necessarily be limited to monitoring methods to assess the impact of the project on the ground cover vegetation.	Section 6.5.4, 6.5.5, 6.5.6, 6.5.7 & Section 8.5.1
Condition C3 (c) (iii). A Landscape Plan, to minimise visual impacts from the solar plant. The Plan shall include, but not necessarily be limited to implementation, management and monitoring strategies to ensure the establishment and ongoing maintenance of landscaped areas.	Section 6.5.5
Condition C4	
The Proponent shall prepare and implement an Operation Environmental Management Plan in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004), or any replacement guideline. The Plan is to be prepared in consultation with the Crown Lands Division of the Department of Trade and Investment and Council as relevant. The Plan shall include but not necessarily be limited to: (a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the project, including all consents, licences, approvals and consultations;	This EHS Manual & OEMP & Appendices
(b) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project;	Section 4.5 & Appendix R
(c) overall environmental policies to be applied to the operation of the project;	Section 3.1

Consent Conditions	Section of EHS Manual and OEMP where addressed
<p>(d) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically monitored, reviewed and improved, (where appropriate) and what actions would be taken in the case that non-compliance with the requirements of this approval are identified. In particular the following environmental performance issues shall be addressed:</p> <ul style="list-style-type: none"> • (i) bushfire hazard and risk management; • (ii) management and maintenance of offsets; • (iii) inspection, monitoring and maintenance of all watercourse crossings; • (iv) management measures for the site, including management of vegetation, soil erosion, dust weed control and landholder liaison. 	Section 6.5, 6.6, 6.7 & 6.8
(e) the environmental monitoring requirements outlined under this approval;	Section 6.5 & 6.6
(f) measures to monitor and manage flood impacts in consultation with NOW;	Section 6.5.3
(g) information on water sources;	Section 6.5.2
(h) complaints handling procedures as identified in conditions C13 to C15;	Section 6.5.12
(i) specific consideration of relevant measures to address any requirements identified in the documents referred to under conditions A2b) and A2c) of this approval; and	This OEMP and EHS Manual and Appendices
(j) management policies to ensure that environmental performance goals are met and comply with the conditions of this approval.	Section 3, 4, 5, 6, 7 & 8
<p>The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of Operation of the project or within such period as otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval. Proponent shall make the Plan publicly available as soon as practicable and provide a copy of the Plan to the Crown Lands Division of the Department of Trade and Investment as soon as practicable.</p>	This OEMP and EHS Manual and Appendices
C5 (d) Biodiversity Offset Management Package (BOMP)	
<p>Following final design and prior to the commencement of construction, or as otherwise agreed to by the Director-General, the Proponent shall develop and submit a Biodiversity Offset Management Package for the approval of the Director-General. The package shall detail how the ecological values lost as a result of the Project will be offset. The Biodiversity Offset Management Package shall be developed in consultation with the OEH and shall (unless otherwise agreed by the Director-General) include, but not necessarily be limited to the monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including</p> <ul style="list-style-type: none"> i) the monitoring of the condition of species and ecological communities at offset locations; ii) the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites; iii) provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH. 	<p>Section 6.5.8</p> <p>Refer to AGL OEMP Section 9.2 and Appendix B (Biodiversity Offset Management Plan)</p>
Conditions C13-C15 (referenced in C4 above)	
<p>Condition C13 of the Development Consent states: Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation) or as otherwise agreed by the Director-General: a) A 24 hour telephone number on which complaints about construction and operational activities at the site may be registered; b) a postal address to which written complaints may be sent; and c) an email address to which electronic complaints may be transmitted. The telephone number, postal address and e-mail address shall be advertised in a newspaper circulating in the local area on at least one occasion prior to the commencement of construction; and at six-monthly intervals during construction and for a period of two years following commencement of operation of the project. These details shall also be provided on the Proponent's internet site required by condition C11. The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the construction site(s), in a position that is clearly visible to the public.</p>	Section 6.5.11 & 6.5.12
<p>Condition C14 of the Development Consent states: The Proponent shall record details of all complaints received through the means listed in condition C13 of this</p>	Section 6.5.11 & 6.5.12

Consent Conditions	Section of EHS Manual and OEMP where addressed
approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to: d)the date and time, of the complaint; e) the means by which the complaint was made (telephone, mail or email); f) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; g) the nature of the complaint; h) any action(s) taken by the Applicant in relation to the complaint, including timeframes for implementing the action; and i)	
Condition 15: The Proponent shall provide an initial response to any complaints made in relation to the project during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition C14. Any subsequent detailed response or action is to be provided within two weeks.	Section 6.5.11 & 6.5.12

2 Site & Project Information

2.1 Project Background

The Broken Hill Solar Plant (BHSP) was constructed for the purpose of electricity generation, with a capital investment value of approximately \$300 million. Accordingly, the Broken Hill Solar Plant was declared to be a State Significant Development for the purposes of the *Environmental Planning & Assessment Act (1979)*. An Environmental Impact Statement was required to be prepared, and approved by way of Development Consent (MP10_0202) by the Director-General on 27 March 2013. This consent document specifies the conditions of the project approval in which the proponent, AGL Energy Limited (AGL) and its contractors are obligated to comply.

The stakeholders identified as potentially being impacted by the Broken Hill Solar Plant or possibly having an interest in the project itself are in Table 2.1 below.

The Broken Hill Solar Plant Site (BHSP) is located approximately 5 km south west of the town of Broken Hill in NSW.

The site consists of a 53.76 MW solar PV power station. The solar plant occupies one land holding of approximately 200 ha to the south of the Barrier Highway. The location of the site is shown in Figure 2.1 below.

The BHSP falls within the Broken Hill Shire Local Government Area.

A new section of dual circuit 22kV overhead line, approximately 2.7 km in length across the Willyama Common, connects the solar plant to the pre-existing TransGrid substation.

Category	Stakeholders
Directly or Indirectly impacted	Adjoining and nearest neighbours to the site, in particular residents of dwellings close to the proposed site
Communities	Local city (Broken Hill)
Aboriginal groups	Office of Registrar of Aboriginal Land Rights Local Council Local Aboriginal Land Council National Native Title Tribunal NSW Office of Environment and Heritage Native Title Services Corporation
Environmental non-government organisations (NGOs) and community based organisations	Local and regional groups Police
Government agencies and regulators	Environmental Representative (Michael Woolley) Local government (Broken Hill City Council) NSW Office of Environment and Heritage (OEH) NSW Office of Water (part of Department of Primary Industries) Industry and Investment NSW (I&I NSW) (including Department of Primary Industries) NSW Department of Planning and Environment NSW Roads and Maritime Services (RMS) Commonwealth Department of Sustainability, Environment, Water, Population and Communities Far West Catchment Management Authority
Special interest groups	Emergency response groups (Rural Fire Service, State Emergency Service) News media groups (ABC Radio, The Border Mail, Rural Press paper, Outback Radio) Business - trade, retail sales and tourism committees

Table 2.1 - Project Stakeholders

A separate Community Consultation Plan (Appendix D of the AGL Broken Hill Solar Plant OEMP) exists to inform the community and project stakeholders of the project developments.

2.2 Project Description

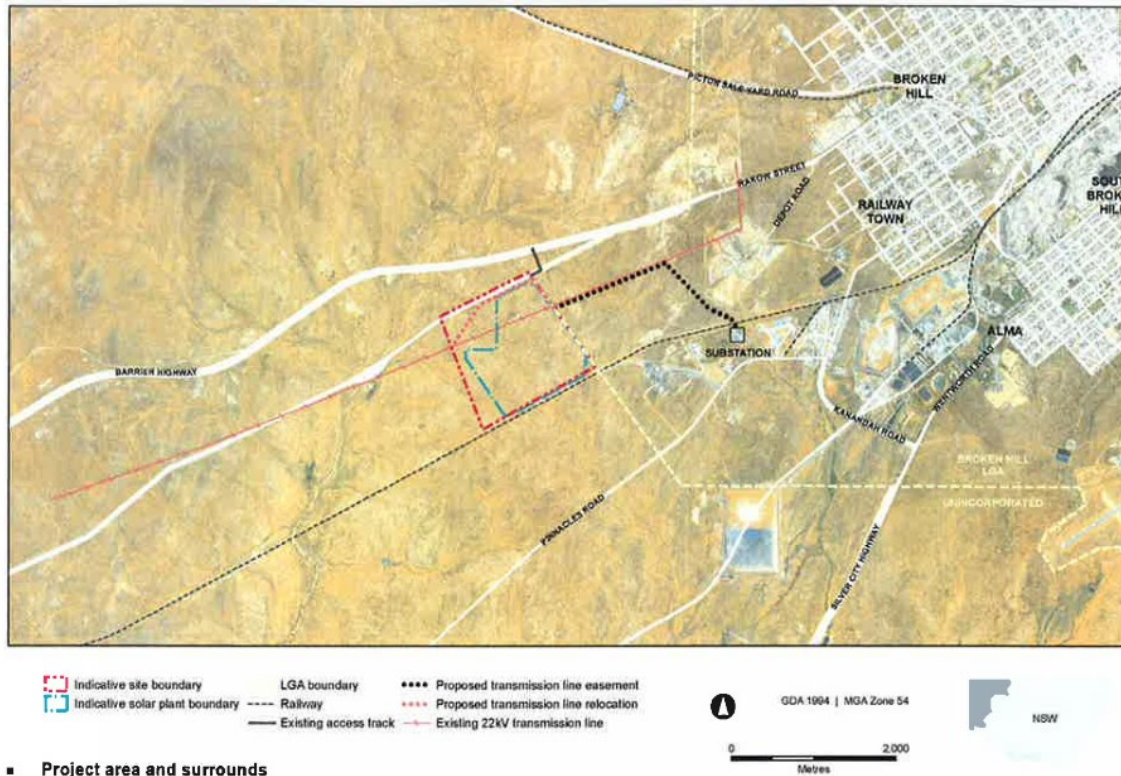
The Broken Hill Solar Plant Site (BHSP) is located approximately 5 km south west of the town of Broken Hill in NSW. The site consists of a 53.76 MW solar PV power station. The solar plant occupies one land holding of approximately 200 ha to the south of the Barrier Highway. The location of the site is shown in Figure 2.1 below. The BHSP falls within the Broken Hill Shire Local Government Area.

A new section of dual circuit 22kV overhead line, approximately 2.7 km in length across the Willyama Common, connects the solar plant to the pre-existing TransGrid substation.

The Broken Hill Solar PV Power Station forms part of the Australian Government's Solar Flagships Program. The Solar Flagships Program is part of the Australian Government's Clean Energy Initiative (CEI). As part of the Flagships Program, AGL Energy Limited (AGL) will deliver the 53.76 megawatt (MW) solar photovoltaic (PV) power station at Broken Hill (NSW).

First Solar (Australia) Pty Ltd has been engaged by AGL as the main Engineering, Procurement and Construction (EPC) contractor for the design, supply, construction and commissioning of the Broken Hill Solar PV Power Station.

The project site is Crown Land administered by the NSW Department of Primary Industries, Catchment and Lands Division. The local area is characterized by mineral processing, Crown Lands, rural activities and the Willyama Common (being public land which covers approximately 97 km²). The location of the site and immediate surrounds is provided in Figure 2.1 below.




■ **Project area and surrounds**

Figure 2.1 – Site location and immediate surrounds

A preliminary constraints analysis was used to inform the location of infrastructure in the early planning phase, to avoid environmental impacts where possible. Impacts of the constructed solar plant related primarily to the clearing of vegetation for the solar plant and associated infrastructure, construction noise, construction traffic and dust. The main impacts associated with operation relate to visual impact and temporary reduction in agricultural production at the site. Decommissioning impacts are generally of a similar nature but to a lesser extent than construction impacts. Mitigation measures and safeguards have been developed and incorporated into this EMP to minimise and offset its residual impacts.

The Applicant (Owner) elected to construct and/or operate the development in stages defined as follows:

- Stage 1 Solar plant construction
- Stage 2 Connection works construction
- Stage 3 Solar plant operation
- Stage 4 Connection works operation



The Broken Hill Solar Plant is expected to operate for at least 30 years, where approximately two to three maintenance personnel would be employed at the site to support routine plant operations and maintenance of the following elements:

- Photovoltaic (PV) modules of cadmium telluride (CdTe) thin film technology.
- Inverters and step-up transformers, converting direct current (DC) electricity produced by the PV modules into alternating current (AC) and connection to the electrical grid.
- Aboveground and underground electrical conduits and cabling, connecting modules to the inverters and transformers.
- Marshalling switchgear, collecting the power from the modules.
- Site office and maintenance building.
- The main access road from the Barrier Highway to the solar plant.
- Internal access tracks.
- Perimeter security fencing and landscaping.

The main operational activities conducted by the Owner would include:

- Day-to-day routine operations and maintenance.
- Replacement of infrastructure, as required.
- Provision of site security.
- Periodic weed control and mowing of the grass under the arrays.

3 Commitment to Environment, Health & Safety

3.1 First Solar

At the heart this manual is First Solar's Health, Safety & Environment (HSE) Management System. This system has been developed to provide policies, procedures, and work rules for eliminating accidents and injury at our facilities.

The HSE commitment to our employees, contractors, and our customers at First Solar is our foremost business consideration. No person will be required to do a job that he or she considers unsafe. The company will comply with all applicable workplace environmental, HSE and health regulations and maintain occupational HSE and health standards that equal or exceed the best practices in the industry.

This puts upfront the priorities for the workplace HSE program and where it is in relation to production. A good operation has workplace HSE integrated fully into production.

We maintain a goal of **ZERO** workplace injuries which is consistent with our values and vision.

To achieve this outcome we pledge to do the following:

- Conduct business in a manner that actively integrates the elements of the First Solar HSE Management System into all aspects of our operations;
- Comply with all applicable laws, regulations and statutory obligations;
- Pro-actively identify and control hazards/risks in the workplace;
- Allocate responsibilities and accountabilities through job descriptions and performance monitoring;
- Support employees and subcontractors in their decision to stop work and intervene when unsafe acts or unsafe conditions are identified;
- Communicate and consult openly with employees, subcontractors and visitors to our work areas regarding First Solar HSE expectations;
- Develop processes that facilitate continual improvement in the HSE Management System as well as HSE performance;
- Provide the necessary resources and training to ensure that the objectives and targets derived from this Policy are achieved; and
- Maintain a pro-active leadership role in HSE management.

A signed copy of First Solar Environmental Policy is in Appendix A.

3.2 Broken Hill Solar Plant

HSE is a core value for First Solar and AGL PV Solar Developments Pty Ltd (Owner). Both companies set high standards for HSE, and continuously seek to improve performance to achieve the goal of zero harm at the Broken Hill Solar Plant (BHSP).

Together we strive for a total HSE culture, where every person working for or on behalf of NSP, including contractors, accepts a personal responsibility to provide a safe and healthy workplace for themselves and their fellow employees.

To achieve our goal we:

- Identify hazards with potential for injury or illness and ensure appropriate controls are implemented;
- Establish, monitor and review objectives and targets that will drive continuous improvement;
- As a minimum, identify and fulfil all HSE statutory and other obligations and Company standards;
- Develop, implement and provide training for safe systems of work and safe working practices;
- Encourage open and honest dialogue about HSE issues and behaviour in a nonthreatening way;
- Ensure that systems are in place to record, investigate and learn from incidents with a no blame approach;
- Provide rehabilitation assistance to encourage a safe and timely return to work;
- Encourage and support employees in elected HSE positions;
- Audit and review HSE Management Systems to ensure they remain relevant and effective.

3.3 Consent Conditions

As part of the Owner's (AGL) commitment to operate the plant, it must ensure particular environmental compliance requirements are met throughout the life of the development. The Broken Hill Solar Plant Staging Report (Table 3.1, Appendix C - Jacobs September 2014) sets out which conditions of consent and revised mitigation measures apply to each stage of the Broken Hill Solar Plant development. The Consent Conditions applicable to First Solar during operations are detailed within Section 1.3.1, Section 6.5.1 and Appendix C of the Manual.

4 Roles and Responsibility

A clear understanding of roles and responsibilities is required for an effective EHS Program. Following are a summary of responsibilities relating to the operational stage of the Broken Hill Solar Plant (BHSP):

4.1 Senior Management

First Solar Senior Management sets policy, develops strategic programs and provides overall governance for Health, Safety & Environment (HSE).

To achieve the desired level of HSE commitment and performance, we must:

- create and communicate a compelling and inspired vision in leadership for achieving an accident and injury free workplace;
- ensure implementation of the First Solar HSE Management Systems;
- actively support and encourage efforts for Continuous Improvement;
- actively manage HSE performance;
- be accountable for regulatory compliance; and
- Ensure accidents, injuries, near-misses and environmental incidents are reported in a timely manner.

4.2 Site Supervisor/Designee

The Site Supervisor or Designee is responsible to know the safety and environment policies, programs, and procedures within this manual. At the discretion of the Supervisor, elements of the program (e.g. training) can be designated to other individuals.

Responsibilities include:

- ensure only trained and competent persons are assigned work activities;
- ensure all Contractors engaged to perform works at the site does so with First Solar's approval and in compliance with the requirements of this manual;
- ensure all personnel attend and participate in a Job Hazard Analysis (JHA) and Pre-Job Briefings (PJB) prior to starting their work;
- ensure all equipment used on the site is maintained in accordance with the manufacturer's specifications and regularly inspected to ensure it is fit for its purpose;
- conducting and documenting Site Safety Orientation Training for Visitors and Contractors;
- establishing when and how safety meetings are conducted;
- ensuring "Incident Analysis" is conducted in accordance with company procedure and that corrective actions are implemented as assigned;
- Communicating results of Investigations to Management and Owner representatives as requested; and
- the collation of a local hospital and medical centre listing for the Site – "Emergency Contacts Poster"

4.3 Site Personnel

First Solar and its Contract personnel are responsible for complying with this manual, as well as AGL HSE programs, in order to assure their own health and safety and that of their co-workers, and to protect the environment.

Site Personnel shall:

- report to work “fit-for-duty”;
- complete Site Safety Orientation Training prior to conducting work;
- take reasonable care for their own safety, health and welfare and that of any other personnel that may be affected by their acts or omissions while at work;
- immediately report all accidents, incidents, injuries, illnesses, environmental incidents and “near misses” to their supervisor;
- immediately report to their supervisor any unsafe condition, tool, equipment, material, or act;
- request instructions from their Supervisor or the Site Supervisor whenever they are in doubt as to the proper HSE procedures associated with any task;
- not undertake any job for which they have not received adequate or required training or for which they are not fully qualified to do;
- properly wear and use all personal protective equipment (PPE) for a given job;
- address personnel who are using questionable or unsafe work practices; and
- inform Supervision or the Site Supervisor of any physical conditions, impairments or injuries (regardless of where the injury occurred, e.g. onsite or offsite) requiring accommodation, medication or that may affect the ability to safely perform required duties.

Any employee or First Solar appointed contractor who deliberately violates a HSE regulation, AGL or First Solar safety procedure, or acts in such a manner as to deliberately endanger his or her own or another person's personal safety shall be subject to disciplinary action, up to and including termination.

4.4 HSE Department

The First Solar HSE Department shall assist the Site Supervisor/Designee to:

- serve as consultants to line management;
- have the appropriate business/discipline knowledge based on work assignment;
- educate management and employees on environmental, safety and health issues;
- monitor and interpret applicable safety and health regulations;
- determine trends based on previous incidents and provide guidance on how to improve performance in areas as needed;
- assist management in workplace audits and inspections;
- ensure timely reporting of accidents, injuries, environmental incidents and near misses;
- assist in conducting incident investigations and developing corrective actions; and

- assist in injury recordkeeping.

4.5 Organisational Chart

The First Solar Organisational Chart (Appendix R), identifies the positions which have assigned roles and responsibilities involved in the execution of health safety and environmental responsibilities in the maintenance activities of the power station.

4.6 Site Environmental Manager/Advisor

The Site Maintenance Supervisor will ensure environmental compliance is occurring on the site. This person will be required to:

- Conduct monthly Environmental Site Inspections.
- Complete the Weekly Environmental Site Inspection Form-DO1 (Appendix Q).
- Co-ordinate with the owner on internal and external environmental audits.
- Advise on and direct works as required to achieve environmental compliance.
- Assist personnel solve problems to achieve environmental compliance.
- Supervise waste management across the site.
- Ensure training of personnel in environmental risk identification and controls.
- Assist with incident investigations and developing corrective actions.

4.7 Individual Worker's Right and Responsibility to STOP work

First Solar employees, contractors, and visitors understand that they have the right to stop work or refuse to work in situations that they do not understand or perceive to be unhealthful, unsafe or causing harm the environment, and to immediately bring these situations to the attention of those at imminent risk and to their direct supervision.

4.8 Site Orientation Training Requirements

Contractors and Visitors assigned to perform work on the site shall be given a copy of this HSE Manual and shall be required to attend Site Orientation Training. All personnel shall have the opportunity to ask questions on this information prior to starting work. Any unique hazards that exist at the Site or in the performance of work shall also be discussed during the training.

4.9 Training

- All FS employees, contractors, and visitors must attend Site Orientation Training prior to their first access to the site and annually every year after.

- The Site Supervisor should conduct the Orientation Training and inform participants to adhere to the requirements of this HSE Manual and of all other Company procedures.
- Personnel shall not be allowed onto the site until they have completed the HSE Orientation Training and successfully passed the HSE Orientation Training Quiz.

4.10 Documentation

- The HSE Orientation attendance sheet shall be retained at the site.
- Personnel completing the Site Orientation may be given a hard hat sticker to indicate they have attended and pass the training.

4.11 HSE Meetings

Regular HSE meetings are used to heighten HSE awareness and to keep employees aware of recent incident analysis, to perform or review HSE self-inspections, and to discuss relevant HSE topics. Individual employees are frequently the best source of information in learning how to work more safely, and regular HSE meetings offer individuals the opportunity to offer their input.

4.11.1 Weekly HSE Meetings

- Weekly site meeting should be conducted by the Site Supervisor.
- An attendance roster and notes should be maintained on file to document attendance.

4.11.2 Monthly HSE Meeting

The O&M Organization has a joint HSE Committee (HSEC). This Committee is made up of both Management and Frontline personnel as well as a member of the First Solar HSE Department.

- The HSEC elects a Chairperson and Co-Chairperson to facilitate meetings.
- A HSEC meeting is held once a month.
- Any O&M personnel can provide input to the meeting by contacting a member of the committee or by attending the monthly meeting.
- An attendance roster and minutes shall be kept and maintained on file.

4.12 Monthly HSE Inspections

Monthly HSE inspections shall be performed by Site Supervisors using to ensure compliance with HSE procedures and identify the need for changes to the procedures.

A copy of the completed forms shall be retained and retrievable on the Site and on POWER for a minimum of one (1) year or as per statutory requirements.

4.13 Management and Supervisor HSE Observations

Performing HSE observations is a very important element of a successful HSE program. This gives Management and Peers the opportunity to observe other employees during the performance of work and visit with them about the activities that are being performed. Observations should include identification of unsafe actions that may be occurring while also taking note of the safe work that is being performed. In a positive manner, the observations should be communicated, recorded and changes initiated to procedures when needed.

4.13.1 Management Observations

- When visiting the site, management or peers should conduct a HSE observation on work being conducted at the site. Documentation of observations shall be captured on the Operations and Maintenance Safety Observation Form (Appendix J). The findings should be discussed with the party being observed and the Site Supervisor prior to leaving the site.

4.13.2 Observation Records

- A copy of the completed forms shall be retained and retrievable on the Site and on POWER for a minimum of one (1) years or as per statutory requirements.

5 Planning

This section contains requirements, rules and guidelines for the planning of work to ensure the safety of the workers and the proper operation of equipment.

5.1 Risk Assessment

5.1.1 HAZID Process

First Solar will act to eliminate or minimize EHS risks arising from its business. Managing work health and safety risks is an ongoing process that is triggered when any changes affect work activities.

Project Risk Management is completed on the First Solar Risk Register and Procedure (APP-SMP 04A, Appendix L) implemented prior to commencing each stage of the Broken Hill Solar Plant project schedule. Only First Solar workers that have been trained in the First Solar Risk Management Training module, and are deemed to have the necessary knowledge & experience of the industry, are to implement this process for First Solar work activities. The Project Manager is responsible to approve & sign off the completed Project Risk Assessment.

A Hazard Risk Workshop or HAZID group has determined the scope of the analysis and considered what could happen if someone or the environment is exposed to each hazard, i.e. the consequence, and the likelihood of it happening. The risks have been evaluated using the risk assessment matrix to determine the level of risk and therefore the prioritization to be placed on the action for control measures to be implemented. The identification of control measures for environmental risks was developed at the workshops described above, following the Hierarchy of Controls Principle.

All control measures that need to be actioned must be recorded in the Corrective Actions Register, which includes a need for an owner and a timeframe that must be agreed by the workshop.

A summary of the significant risks at the Broken Hill Site are taken from the HAZID and are bulleted in the following sub sections (Note that this listing is not comprehensive and does not cover all risks):

5.1.1.1 Environment

These environmental risks are summarized as follows:

- Fires, particularly from grass fires and bushfires.
- Exposure to hazardous fauna and general fauna interactions including entrapment.
- Management of potentially hazardous chemicals and their disposal, and managing spills or releases (of these materials).
- Managing and containing dust and sediment on site.
- Controlling noxious weeds and preventing further infestations on site.
- Managing the balance between excessive growth of vegetation in the arrays and providing sufficient groundcover to minimize dust generation.

5.1.1.2 Health and Safety

These health and safety risks are summarised as follows:

- Managing the effective EHS performance of maintenance contractors.
- Exposure to electricity from numerous sources.
- Interactions between people and plant.
- Managing fatigue and heat stress.
- Exposure to lightning strikes.
- Undertaking manual tasks.
- Preventing and managing unauthorised access to the site.
- As described in Section 8, exposure to chemicals and their proper management.

5.2 Daily Safety Plan

The Daily Safety Plan is a tool used to help site personnel establish a mutual understanding of the day's work activity by reviewing planned work, assessing site conditions, assessing worker conditions.

A Daily Safety Plan (Form FS-HSE-IP-F8, Appendix K) should be completed at the beginning of the day to provide a guide for Safety discussions and set the tone for the day's focus on Safety.

The Daily Safety Plan discussions do not replace the Job Hazard Analysis or Pre-Job Briefing required before each work activity.

5.3 Job Hazard Analysis

The identification of hazards and assessment of risks is intended to assist all employees in 'taking all practical steps' to eliminate, isolate or minimize exposure to significant hazards.

Perform a Job Hazard Analysis by completing Form FS-HSE-IP-F1 (Appendix D) for each job performed on the site.

Hazards are potential sources of energy that may cause death, injury or damage to equipment or facilities or that can cause harm to the environment.

Significant hazards are those that can cause serious injury or harm to employees, contractors, the public and equipment.

If the Hazard Analysis has indicated that risks cannot be sufficiently controlled or eliminated to enable the work to be done safely (for example, on or near energised electrical equipment), the work must not proceed.

5.4 Pre-Job Briefings

One of the most important aspects of working safely is to conduct an effective pre-job briefing. A pre-job brief shall be carried out prior to the start of work and as required throughout the job. The process of thinking through a job in advance, conducting an on-site briefing and conducting a thorough hazard analysis can result in decisions that will prevent serious injuries and damage.

Complete Pre Job Briefing and Work Authorisation Form FS-HSE-IP-F2 (Appendix E). The form should be completed by the person or Supervisor of the workers(s) performing the job or task.

The pre-job briefing shall consist of the following:

- Review of the job scope - Clearly identify and discuss the scope of the job being performed. Make clear that anytime there is a change in scope, the work must stop until the scope change has been properly assessed to ensure worker safety.
- Review of individual responsibilities and expectations - Discuss each worker responsibilities in the work being performed and any expectations associated with those responsibilities.
- Review of energy controls - What steps will or have been taken to ensure energy is controlled during this job. Discuss appropriate Switching Orders and LOTO.
- Review hazards and hazard controls (identified in the JHA) - Discuss job hazards identified in the JHA. Discuss applicable electrical shock and arc flash boundaries? Ensure understanding of the hazards and the steps to eliminate or mitigate them. Hazards should include those that could cause harm to the environment and controls to mitigate them.
- Review PPE and HSE Manual requirements for the job - Ensure workers are aware of PPE requirements for the job and any work safety rules that apply.
- Review conditions that would require additional job briefings or stopping the job - Discuss times or situations that might occur where the expectations are to stop the job or to have additional job briefings. This would include things like new workers on the crew, a change in job scope, or any worker feeling that there is an unsafe condition.
- Review important Contact and Emergency numbers - Ensure all workers are aware of Emergency contact information and that this information is readily available at the work location.
- Invite questions or input from the work crew - Solicit questions or input from the workers. This provides time to ensure mutual understanding of the work to be performed.
- Ask, "What have we missed, what can go wrong with this job and how will we respond if it does?" - Ask individual workers by name to stimulate conversation

All workers shall sign the Pre-Job Briefing form prior to the supervisor allowing work to begin.

5.5 Work Performance

The JHA and Pre-Job Brief shall be readily available to those performing the work. Any visitor wanting to enter the job site must review and sign the JHA and Pre-Job Brief prior to entry.

The work activity must be completed in accordance with the Pre-Job Brief. If there is a change in the work scope, if work conditions change or if new hazards are identified, or the controls prove inadequate or ineffective, the work activity shall be stopped immediately. The JHA and Pre-Job Brief shall be reviewed by the employees and supervisor, revised as necessary, and approval/concurrence obtained from O&M before the work is continued.

5.6 Post Job Review

After the work has been completed, a Post-Job Review should be conducted to identify any problems or improvements that could be made in future job performance.

5.7 Form Record Retention

JHA and Pre-Job Brief forms shall be kept onsite for one year. These shall be made available to the Safety Manager or anyone who requests them, for the purposes of providing oversight, trending, and/or lessons learned.

6 Environment

6.1 Operational Environmental Management Plan (OEMP)

One of the principle purposes of this document is to provide support for the AGL Operational Environmental Management Plan (OEMP). This section addresses how the Approval Conditions for the operational stage of the BHSP development will be met.

6.1.1 Environmental Policy and Commitment

First Solar commits to supporting the Owner (AGL) to achieve the environmental management objectives of the OEMP.

First Solar is committed to creating a culture where health, safety and the environment is an integral part of all our employees and subcontractors daily lives, creating a better future for the world by being the HSE industry leader.

First Solar is committed to improving the environment, including compliance and pollution prevention throughout every phase of our product lifecycle. It's especially important that First Solar place a primary emphasis on environmental responsibility since our product essentially exists to improve and protect the environment. From raw material sourcing to the industry's only module recycling program, environmental responsibility is a key consideration in everything that we do.

The objective of this plan is to satisfy this commitment by outlining general site information, special site features and best practice environmental management, governed by the overarching vision and mission, stated as follows:

Our Vision...

Enable First Solar to create a better future for the world by being the EHS industry leader.

Our Mission...

Create a culture where EHS is an integral part of all our associates' daily lives making First Solar the safest place on the planet.

- Minimize our environmental footprint by achieving zero emissions during manufacturing.
- Promote First Solar sustainability through EHS operational excellence, waste minimization, resource conservation and a world-class recycling program.
- Provide the tools, programs and training to achieve EHS excellence and compliance with all applicable regulatory and First Solar standards.
- Enable First Solar to continuously improve EHS performance and share what we learn with suppliers, competitors and customers.
- Develop a global team of EHS professionals focused on partnering with the First Solar business worldwide.

Refer to Appendix A for the First Solar's Environmental Policy.

6.2 OEMP Objectives

6.2.1 Overall Objectives

The purpose of setting objectives and targets is to enable the maintenance works to meet a defined level of performance against identified criteria.

This section outlines the standards and performance measures for environmental aspects and subsequent management activities that will be used to prevent or minimise the identified potential risks during the maintenance stage. These risks were identified in the operational & maintenance stage risk assessment (or HAZID) described in Section 5.1. The objectives and targets have been set to be specific, measurable, realistic and achievable.

The Owner is responsible for setting and managing the achievement of the environmental objectives and targets, and for environmental performance issues required by the development Consent Condition C4, which apply to operations, and the associated Revised Mitigation Measures.

The purpose of setting objectives and targets is to enable the operations and maintenance works to meet a defined level of performance against identified criteria.

The overall objectives and targets for the OEMP are set out in the table below.

Item:	Objective:	Target:	Documentation:
Environmental compliance	Operation to be undertaken in accordance with the Broken Hill Solar Plant Development Consent	<ul style="list-style-type: none"> 100% compliance with the Development Consent Zero reportable environmental incidents 	<ul style="list-style-type: none"> Weekly Site Inspections External Audits Internal OEMP Audits
Legal compliance	Compliance with all environmental legal requirements	<ul style="list-style-type: none"> 100% compliance with all environmental legal requirements Zero reportable environmental incidents. 	<ul style="list-style-type: none"> Compliance tracking through Intellex Internal OEMP Audits
Best practice environmental management	Effective implementation of OEMP Appendices where applicable to ensure best practice environmental management	<ul style="list-style-type: none"> 100% compliance with measurable management and mitigation measures outlined in the CEMP Appendices. Zero reportable environmental incidents. 	<ul style="list-style-type: none"> Monthly Compliance Tracking reporting to Owner. Weekly Site Inspections Internal OEMP Audits
Environmental complaints	Minimise environmental complaints and adequately address any environmental complaints in a timely manner.	<ul style="list-style-type: none"> Zero community complaints 100% compliance with complaints response timeframes 100% compliance with 	<ul style="list-style-type: none"> Monthly Compliance Tracking reporting to Owner. Internal OEMP Audits

		timeframes for complaint investigations and close-outs.	
Incidents	Minimise, avoid and appropriately manage all environmental incidents.	<ul style="list-style-type: none"> • Zero reportable environmental incidents. • 100% compliance with incident reporting, investigation and implementation of corrective action timeframes. 	<ul style="list-style-type: none"> • Environmental Incident Register • Environmental Incident Reports • Monthly Compliance Tracking reporting to Owner • Internal OEMP Audits
Non conformance	Minimise, avoid and appropriately manage all environmental non-conformances.	<ul style="list-style-type: none"> • Zero reportable environmental non-conformances • 100% compliance with timeframes for the investigation and implement corrective actions. 	<ul style="list-style-type: none"> • Weekly Inspections • Monthly Compliance Tracking reporting to Owner • Internal OEMP Audits
Audit and inspection	Undertake environmental site audits and inspections in a timely manner.	<ul style="list-style-type: none"> • 100% compliance with timeframes for environmental audits and inspections • 100% compliance with timeframes for implementation of identified corrective actions. 	<ul style="list-style-type: none"> • Weekly Site Inspections • External Audits • Internal OEMP Audits
Environmental awareness and compliance training	All operations and maintenance staff to be aware of their environmental obligations and to be competent in relation to their environmental responsibilities	<ul style="list-style-type: none"> • 100% compliance with WEAC Training Commitments • Zero reportable environmental incidents. 	<ul style="list-style-type: none"> • Site induction register • WEAC Training • Internal OEMP Audits

Table 6.2 - Overall Objectives and Targets for the OEMP

6.3 Operational & Management Stage Risk Assessment

First Solar will act to eliminate or minimize environmental risks arising from its operational activities. Managing environmental risks is an ongoing process that is triggered when any changes affect work activities.

Project Risk Management is completed on the First Solar Risk Register and Procedure (APP-SMP 04A, Appendix L) implemented prior to commencing each stage of the Broken Hill Solar Plant project schedule. Only First Solar workers that have been trained in the First Solar Risk Management Training module, and

are deemed to have the necessary knowledge & experience of the industry, are to implement this process for First Solar work activities. The Project Manager is responsible to approve & sign off the completed Project Risk Assessment.

A Hazard Risk Workshop or HAZID group has determined the scope of the analysis and considered what could happen if someone or the environment is exposed to each hazard, i.e. the consequence, and the likelihood of it happening. The risks have been evaluated using the First Solar risk assessment matrix, to determine the level of risk and therefore the prioritisation to be placed on the action for control measures to be implemented. The identification of control measures for environmental risks were developed at the workshops described above, following the Hierarchy of Controls Principle.

Environmental Risk Assessment of the Operation of the Broken Hill Solar Plant

Impact	Risk Level	Environmental Control Measures	Risk Level
Non-compliance with the conditions of the development consent during operational phase of works	Medium	Conduct all operational works in accordance with the requirements of this HSE/OM Manual & the OEMP.	Low
Injury to fauna/damage to equipment – (bird strike on fences, wildlife (kangaroos) becoming trapped inside the plant)	Medium	During inspections of the plant inspection of injured / trapped wildlife.	Low
Overgrown vegetation in the panel array areas	Medium	Monitor vegetation regrowth through weekly inspections, implement weed controls.	Low
Noxious environmental weeds	Medium	Noxious weed control, vegetation management.	Low
Use of herbicides	Medium	Monitor use, ensure adherence to application instructions.	Low
Noise nuisance to receptors, including recreational users	Medium	Undertake noise generating activity during standard daytime hours. Distance to nearest residence provides attenuation.	Low
Siltation of waterways near watercourse crossings	Medium	Soil and water management as per the progressive erosion and sediment control plans, and ground cover / revegetation management.	Low
Release to water bodies and land resulting in Eco toxic effects	Medium	Designation of fuel storage and maintenance areas. Storage of hazardous materials/dangerous goods in accordance with Australian Standards.	Low
Traffic impacts	Medium	Traffic signage on access roads. Implementation of Traffic Management Plan.	Low
Unexpected find and potential damage to artefact	Medium	Mapping of sensitive areas. Notification of unexpected finds (cultural heritage).	Low

Siltation of downstream water bodies	Medium	Soil and water management as per the progressive erosion and sediment control plans, and ground cover / revegetation management.	Low
Dust generation (risk of dust going off site), air quality and deposition	Medium	Assess whether dust may cross the site boundary. If so apply the most practical and or effective measures from the following: water sprays, discontinue work under high wind conditions where dust may cross the site boundary, cover any stockpiled materials. Implement corrective actions in response to community complaints.	Low
Dirt tracking onto the Barrier Highway	Medium	Daily checks of site entrance and vehicles before exiting the site.	Low
Unexpected find and potential damage to artefact	Medium	Mapping of sensitive areas. Notification of unexpected finds (cultural heritage).	Low
Accumulation of rubbish at project site - introduction of pests or other undesirable wildlife	Medium	Dispose clean inert materials to appropriate category in transfer station. Reuse any materials or plant that is in good operating condition.	Low
Fauna injury or fatality	Medium	Traffic signage on access roads. Traffic management plan.	Low
Vehicle emissions	Low	Regular vehicle checks and maintenance.	Low
Vibration nuisance to nearest sensitive receptors	Medium	Undertake activity during daytime hours. Distance to nearest residence provides attenuation. Notify nearest residences about the type and duration of noise.	Low

6.4 Operational EMP Objectives

The purpose of setting objectives and targets is to enable the maintenance works to meet a defined level of performance against identified criteria.

This section outlines the standards and performance measures for environmental aspects and subsequent management activities that will be used to prevent or minimise the identified potential risks during the maintenance stage. These risks were identified in the O&M Stage Risk Assessment in Section 6.3 and also stage risk assessment (or HAZID) described in Section 5.1. The objectives and targets have been set to be specific, measurable, realistic and achievable. The objectives and targets have been set to be specific, measurable, realistic and achievable.

The Owner is responsible for setting and managing the achievement of the environmental objectives and targets outlined in the following table, and for environmental performance issues required by the development consent Condition C4.

The purpose of setting objectives and targets is to enable the maintenance works to meet a defined level of performance against identified criteria. Section 6.5 of this document describes the environmental management activities to be conducted in order to meet the objectives and targets that have been set for the operations stage of the development.

6.5 Environmental Management Activities

The following section specifies the standards and performance measures for environmental aspects and subsequent management activities, including mitigation and control measures that will be used to prevent or minimise the identified potential risks during the operational and maintenance stage.

Monitoring checklists assign responsibility for control measures to specific personnel (or roles) for implementation and identify how environmental management activities and controls will be monitored.

The Weekly Environmental Inspection Checklist Form D01 (Appendix Q) will be used to monitor the compliance with controls required manage the risks identified in Section 6.3 describes the other documents and processes that will be used by First Solar to monitor and demonstrate compliance to the O&M EMP objectives.

6.5.1 Specific OEMP Activities

Conditions requirements	Responsibility	Monitoring Requirements / Frequency
i. Bushfire hazard and risk management	<p>First Solar is required to carry out environmental inspection checklists that are to be provided to AGL.</p> <p>The Owner (AGL) is responsible for implementation of specific management measures to comply with this condition.</p> <p>Refer to AGL Operational Environmental Management Plan (Section 9.1)</p>	Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)
ii. Management and maintenance of offsets	<p>Refer to AGL Operational Environmental Management Plan (Section 9.2)</p> <p>Refer to Table 5-1 of the AGL Biodiversity Offset Management Plan Broken Hill Solar Plant (Appendix B of the AGL Operational Environmental Management Plan)</p>	<p>Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)</p> <p>Form I-01 Weed Management Activities and Controls Form (Appendix W)</p>
iii. Inspection, monitoring and maintenance of all water crossings	<p>The Contractor (First Solar) is responsible for inspection and monitoring of all water crossings, and is required to carry out an environmental inspection checklist that is to be provided to AGL in order to manage and maintain water crossings.</p> <p>The Owner (AGL) is responsible for implementation of specific</p>	For inspection and monitoring of water crossings – Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)

Conditions requirements	Responsibility	Monitoring Requirements / Frequency
	management measures to comply with this condition.	For maintenance activities, refer to AGL Operational Environmental Management Plan (Section 9.3)
iv. Management measures for the site, including management of:		
<ul style="list-style-type: none"> Vegetation 	<p>The Owner (AGL) is responsible for maintaining the health of revegetated areas and the Contractor (First Solar) is required to carry out an environmental inspection checklist and groundcover monitoring that is to be provided to AGL in order to manage the revegetation progress.</p> <p>First Solar is required to rectify any defects in the revegetation under instruction from AGL.</p> <p>Refer to Section 6.5.3 and Form H-01 - Groundcover Monitoring Record (Appendix V)</p> <p>Refer to AGL Operational Environmental Management Plan (Section 9.4).</p>	<p>Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)</p> <p>Form H-01 - Groundcover Monitoring Record (Appendix V): requires photographs to monitor the revegetation progress.</p>
<ul style="list-style-type: none"> Soil erosion 	<p>The Contractor (First Solar) must undertake monitoring to ensure that the Owner is advised of any routine vegetation management required such as reseeded, in order to ensure adequate ground cover to prevent soil erosion.</p> <p>Refer to Section 6.5.3 and Form H-01 - Groundcover Monitoring Record (Appendix V)</p> <p>The Owner (AGL) is responsible for implementing the Erosion and Sediment Control (ESC) Plans for the Site.</p> <p>Refer to AGL Operational Environmental Management Plan (Section 9.3 & 9.4).</p>	<p>Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)</p> <p>Form H-01 - Groundcover Monitoring Record (Appendix V): requires photographs to monitor the revegetation progress.</p>
<ul style="list-style-type: none"> Dust 	<p>The Contractor (First Solar) is required to monitor dust daily on site and record the results on the environmental inspection checklist.</p> <p>The Owner (AGL) is responsible for implementation of specific</p>	<p>Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)</p>

Conditions requirements	Responsibility	Monitoring Requirements / Frequency
	<p>management measures to comply with this condition.</p> <p>Refer to AGL Operational Environmental Management Plan (Section 9.4 & 9.5).</p>	
<ul style="list-style-type: none"> Noxious Weed control 	<p>The Contractor (First Solar) is required to carry out the environmental inspection checklist and the groundcover monitoring and provide this information to the Owner (AGL).</p> <p>The Owner (AGL) is responsible for implementation of specific management measures to comply with this condition.</p> <p>Refer to AGL Operational Environmental Management Plan (Section 9.4).</p>	<p>Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)</p> <p>Form H-01 - Groundcover Monitoring Record (Appendix V): requires photographs to monitor the revegetation progress.</p> <p>Form I-01 Weed Management Activities and Controls Form (Appendix W)</p>
<ul style="list-style-type: none"> Landholder liaison 	<p>The Contractor (First Solar) is responsible for community consultation and notification to the extent that enables the Owner (AGL) to comply with the Consent Conditions (C12) and with the Community Consultation Plan).</p> <p>Refer to Section 6.5.11 & 6.5.12 as well as the Community Consultation Plan in Appendix D of the AGL Operational Environmental Management Plan.</p>	<p>Complaints to be recorded Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q), and closed out accordingly.</p>

6.5.2 Water Supply & Management

Water for the operation is supplied via a rainwater tank located at the site offices. This is expected to meet the requirements for the site personnel (drinking/washing/toilet) during typical seasons. In the instance where water runs low or is depleted, the operation will source potable water from Essential Water via Black Lion Inn or other suitable supplier. In the event of a fire, RFS tankers can gain access to water via the main water connection located 50 meters along the west fence from the main access gate or 50,000 litre water tank located adjacent to the O&M building inside the solar farm security fence or the small water course located at the furthest North West corner of the solar plant.

In the event that water-based dust suppression is required on the site, water will be trucked in via a water tanker. To ensure potable water levels are sufficient in quantity for the site, First Solar will routinely check water levels in on site tanks (Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q)).

6.5.3 Inspection and Monitoring of all Water Crossings

All equipment has been situated at least 0.3 meters above ground level to mitigate the potential impact of a flood event. The substation and office buildings have been designed to accommodate a 1:100 year flood and furthermore have been located in the north east of the site, outside the likely inundation zone. The substation and office building would be designed to accommodate a 1:100 year flood at the site and be located in the north east of the site.

There are a number of culverts on the site. Given the topography, there are other permanent erosion and sediment controls structures in place. To ensure that the culverts remain effective, First Solar is responsible for inspection and monitoring of the water crossings, as per the table below. These results are to be recorded on Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q). This information is then to be passed on to the Owner (AGL), who is responsible for maintenance of the water crossings.

Form D-01 - Weekly Environmental Inspection Checklist (Appendix Q) will also be used to monitor any soil erosion that may arise from water flows across areas that are for example particularly slow to re-vegetate. Where First Solar identifies that soil erosion is occurring as a result of ineffective, poorly maintained, or defective re-vegetation, then the cause will be determined and the necessary contractual requirements undertaken to ensure compliance with the relevant Approval Conditions.

Inspection and Monitoring of all Water Crossings				
Environmental Management Control	Role Responsible	Timing / Frequency	Completed (Initial/Date)	Reference / Notes
Inspection of causeway for pollution and works	Site Manager	As necessary, generally following rain events		Guidelines for Controlled Activities on Waterfront Land (NOW, July 2012). Development Consent (MP10_0202), including Conditions B10 and C4(f) & (g)

6.5.4 Management of Vegetation, Soil Erosion and Weed Control

Revegetation and groundcover management activities after the construction phase and through the operations stage will be designed to keep dust and soil erosion to a minimum. Vegetation and groundcover monitoring will highlight the following:

- Where existing tracks on the site are not being used such that vegetation is being disturbed and new areas of land are becoming compacted
- Where vegetation is low or non-existent such that soil may be exposed to erosion and will create

- extreme dust erosion
- Where vegetation is excessive and is posing a fuel loading risk and general combustion hazard particularly around combiner boxes and under PCS units or other areas where ignition could occur
- Vegetation levels across the site and along the site boundary that is excessive and may expose the site to unnecessary risks from bush fires

Any soil erosion, sediment and dust impacts arising during O&M will be mitigated through revegetation activities designed to keep dust and soil erosion to a minimum.

Vegetation monitoring will be undertaken routinely by First Solar so that vegetation management options such as reseeding or chemical weed treatment can be initiated as soon as is required (refer to H-01 Groundcover Monitoring Record (Appendix V)). Whilst First Solar is not responsible for maintaining the health of re-vegetated areas (except to the extent it is required to rectify any defect in the re-vegetation established during construction), monitoring is to be completed routinely as part of the weekly site inspection with the results provided to the Owner (AGL), so that AGL are advised and aware of any routine vegetation management required such as reseeding.

First Solar's monitoring is to highlight where vegetation is low or non-existent that soil will be exposed to erosion and will create extreme dust erosion and where vegetation is excessive and is posing a fuel loading risk.

In terms of vegetation management, specialists are required to advise on long term management of groundcover at the site and these would be engaged on an as-required basis. Such specialists would assess the site for weed control and appropriate species diversity (including proportion of native species in the mix) on a 6-12 monthly basis until such a time that weeds are controlled and revegetation is of good health and self-sustaining. The areas to be addressed will include vegetation on site and well as the revegetation along the 22 KV overhead line. Conventional vegetation controls will be deployed on an as-required basis, principally the use of knock-down herbicides. Measure may also include slashing and whipper-snipping under PCS units and around combiner boxes. The effectiveness of weed control processes (and groundcover and vegetation management), will be assessed during the external auditing and management review (see Section 7, and Section 10 of the AGL OEMP). Weed control will target noxious weeds only (see section 6.5.6 below).

First Solar is responsible for routine monitoring of soil erosion and dust control during the maintenance phase of the power station's operation in relation to activities directly related to its scope of services (see Section 6.5.5 below).

6.5.5 Management of Dust and Emissions

Dust levels on site will be managed by primarily ensuring adequate groundcover outside and (particularly) within the arrays. In addition, speed limits will be enforced on access roads and alleys. Water may be used as a dust suppressant during periods of intense dust generation.

To minimise greenhouse gas emissions, vehicles must not be left running when not in use.

Dust generation will be monitored by First Solar on a daily basis and actions taken as required. A monitoring program will be conducted weekly/monthly on site using Form D-01 Weekly Environmental Inspection (Appendix Q), which will include the monitoring of dust levels (at that point in time).

6.5.6 Management of Weeds

There are several aspects related to weed management at the BHSP. Of particular concern is the potential for regrowth of woody plants (weeds) where their re-emergence will lead to eventual lifting and/or removal and breakage of installed solar PV modules (through upward force of growing stems), that may affect operations.

Under the Noxious Weeds Act (1993), the site has an obligation to control and prevent the spread of weeds identified as noxious.

Weed management strategies have been implemented by the Owner (AGL) with a weed contractor engaged to address noxious weeds (refer to Section 9.4 of the AGL OEMP). As spraying has previously been conducted on site, First Solar is to monitor weed management strategies which are currently ongoing, with weed growth to be monitored and recorded using Form I-01 Weed Management Activities and Controls Form (Appendix W). Where woody weed regrowth is identified, First Solar is to advise AGL so re-spraying of the affected areas can be scheduled.

Another aspect of weed management is in relation to managing the groundcover (see also previous Section 6.5.4). The preferred option for managing weeds is the targeted application of a knock down herbicide e.g. glyphosate, which may be supplemented with slashing, and/or whipper-snipping.

If required, the Owner (AGL) can engage an environmental specialist (competent person) to assess the site for weed control and adequate groundcover management on a 6-12 monthly basis until such a time that weeds are controlled. The effectiveness of weed control processes (along groundcover and vegetation management - see Section 6.5.4) will be assessed during the AGL external auditing and management review. Site wide weed control and reseedling with suitable prostrate growing pasture plants, may be considered as an option to control weeds (through pasture plant competition).

Weeds will be monitored by First Solar using Form D-01 Weekly Environmental Inspection (Appendix Q) and Form I-01 Weed Management Activities and Controls Form (Appendix W), with the information provided to AGL to ensure management of weeds (refer to Table 6.5.1).

6.5.7 Landscape Monitoring

Refer to Section 9.2 & 9.4 of the AGL OEMP.

6.5.8 Biodiversity Offset Management Plan

Refer to Section 9.2 of the AGL OEMP and Appendix B of AGL's OEMP – Biodiversity Offset Management Plan.

6.5.9 Operational Noise Management

Noise in the work environment is the major cause of noise-induced hearing loss. Noise can also create stress, and can be a hazard at work, interfering with communication, acting as a distraction and making warnings harder to hear. Noise can also have an adverse impact on the environment and be a source of complaints from neighbouring property holders

Due to the nature of the activities, plant and equipment on site during the maintenance phase, there are not expected to be sources of excessive noise or vibration. A small number of light vehicles and a portable

diesel powered generator will be the only noise-generating items remaining on the site. These items all generate noise at levels less than industrial noise guidelines, occupational noise levels and are not expected to present an environmental, health or safety impacts. Also refer to Section 9.8 of the AGL OEMP.

Any excessive noise or noise complaints are to be recorded in the site diary, and included on Form D-01 Weekly Environmental Inspection Checklist (Appendix Q). Refer to Section 6.5.12 and Section 6.6 of the AGL OEMP for complaints management requirements.

6.5.10 Managing the interaction with Fauna

With regard to Fauna, the following actions are to be adhered to:

- Animals and farm machinery may be present in the surrounding farmland and with this all personnel are to observe etiquette by being cautious when driving or working around animals, including leaving any gates in the position you found them.
- In addition to farm animals a variety of snakes are local to Region. Snakes are attracted by potential food and good places to hide. They typically travel through long grass, amongst leaf litter or under shrubbery or debris.
- Under no circumstances shall personnel ever attempt to catch or kill a snake. Snakes are protected by legislation and it is a criminal offence to harm one. The penalty for harming a snake includes a potential fine. The vast majority of snake-bites occur when individuals are trying to catch or kill snakes. If personnel see a snake, they are requested to walk quietly away and leave it alone. The snake should leave of its own accord, or if it requires to be moved, the Site Supervisor shall contact the local snake (fauna) handler for assistance.
- When equipment is left unattended for extended periods it has the potential to become habitat for native species. Unfortunately, some native species such as snakes, spiders, and bees can be a serious hazard for Employees. Employees when opening equipment should always be alert for the presence of hazardous species of reptiles and insects.
- Snakes and spiders do not typically reside in areas where there is not a food source, so good housekeeping can reduce the probability of infestation and assist in identifying if these species are present. Most food sources will only exist when water also exists, so eliminating water sources can also be an effective deterrent
- Employees should always be alert to the sounds of bees and not open doors to unoccupied buildings without appropriate caution. The noise of a bee colony can usually be heard or seen with a cautious approach (e.g. knocking before entering and listening)
- Specific seasons of the year, particularly as seasons move from cold to warm temperature, cause some species such as bees and snakes to become very active and mobile. Seasonal conditions such as heavy rains cause some species to take shelter, such as spiders
- During the EIS a pair of nesting raptors were identified in the vicinity of the plant and a raptor management plan was developed. At no stage during mobilization or construction were the raptors observed. First Solar is to monitor the site during its weekly inspections using Form D-01 Weekly Environmental Inspection Checklist (Appendix Q) and if necessary implement the raptor management plan.

6.5.11 Landholder Liaison

In accordance with Condition C12, the Owner (AGL) will continue to provide a Community Information (Consultation) Plan for liaison with all impacted and neighbouring landowners. Whilst First Solar is not responsible for community consultation and notification requirements, First Solar will provide the Owner (AGL) with the following information in order to meet this requirement:

- Information (as required) to meet landowner notification requirements regarding work scheduling, including out of hours work during the operations and maintenance phase.
- First Solar is committed to engaging and utilising local contractors, manufacturing facilities and materials during the operations and maintenance of the Power Station and associated access tracks.

The consultation and engagement activities and tools to be used are detailed in the AGL Community Consultation Plan (Appendix D of the AGL OEMP) and continue on from the construction to operations and management stage, are summarised as follows including the following elements:

- Provision of a dedicated 1800 community enquiry phone number, project email and PO Box address.
- A project website dedicated to the BHSP and information arising from community consultation meetings.
- AGL attendance at local community events.
- Ongoing operation of the Community Consultative Committee (scheduled on an as needs basis as requested by the CCC and held in Broken Hill).
- Ongoing provision of community information sessions in Broken Hill.
- Provision of advertisements in the in the local newspapers.
- Up-keep of the main entrance signage.
- Provide contact cards for the project for new employees, site visitors and contractors.
- Provision of site tours and site-based activities with various stakeholder groups (when appropriate).

First Solar will provide AGL with information and assistance to support each of the bulleted activities above. First Solar will also provide AGL with notification regarding work scheduling, including out-of-hours work, during the operations stage.

Further details of the BHSP's community and consultation plan for Broken are described AGL's OEMP Section 6.6 and in AGL's Community Consultation Plan – Broken Hill Solar Plant in Appendix D of the AGL OEMP.

6.5.12 Complaints Management

First Solar will work with the Owner to ensure complaints are appropriately investigated and managed throughout the operations and management phase. The Owner will be responsible for establishing the notification interfaces specified in development consent condition C13. Records of complaints should be kept on the relevant section of the Form D-01 Weekly Environmental Inspection Checklist (Appendix Q)

and all details provided to AGL. Actions from complaints should be closed out as for any other incident and done as soon as practical. Close out actions are to be recorded on the appropriate checklist and provided to the Owner (AGL).

Refer to Section 6.6 of the AGL BHSP OEMP and Appendix D of the AGL BHSP OEMP.

6.5.13 Bushfire Management

This section details the bushfire management measures for the site including those elements relevant to the maintenance activities at the site. The remainder of this section provides the operational aspects that site management and personnel need to be aware of in implementing the bushfire management measures and for generally managing fire risks at the site and in particular actions to prevent fires and how to identify, maintain, replace and use firefighting equipment (FFE). Also refer to Section 9.1 of the AGL OEMP.

- Be alert for fire hazards and eliminate such hazards if possible. If a fire hazard cannot be eliminated then report it to the Site Supervisor
- Good housekeeping is one of the most effective aids to fire prevention. Keep work areas clean and clutter-free
- Waste paper, rags and other combustible material shall not be allowed to accumulate
- Vegetation on the site should not be allowed to grow such that dry conditions will create a risk of ground fire on the site, or propagate an offsite grass fire throughout the site. Vegetation across the site and along site boundaries shall be monitored monthly and prior to the onset of the fire season (typically starting in October each year) (refer to sections 6.5.4, 6.5.6 & 6.5.7).
- Explosive, flammable or combustible material shall be stored only in approved containers consistent with manufacturer instructions, Safety Data Sheets, local and state agencies or other government authorities responsible for administration of fire codes. Store all flammable and combustible liquid containers in a fire proof cabinet designed to safely store such materials (refer to section 8.33)
- Explosive or flammable material storage areas shall be located in areas that minimise the propagation of fire to occupied areas or other structures.
- Spark-producing equipment shall be prohibited within 20 metres of explosive or flammable storage or where flammable liquids or vapours or bushlands and grass are present
- Smoking and outdoor cooking equipment shall be allowed only in designated areas. The use of lighters, strike matches and other types of igniter material shall not be allowed outside of these designated areas
- Outdoor cooking equipment shall not be used, nor shall spark-producing activities be conducted when wind gusts are periodic or during periods of high velocity sustained winds
- Be familiar with the operation and use of fire prevention, detection, and suppression equipment at the site
- Cap containers containing flammable and combustible liquids securely when not in use

- Use only approved containers for handling and dispensing flammable and combustible liquids

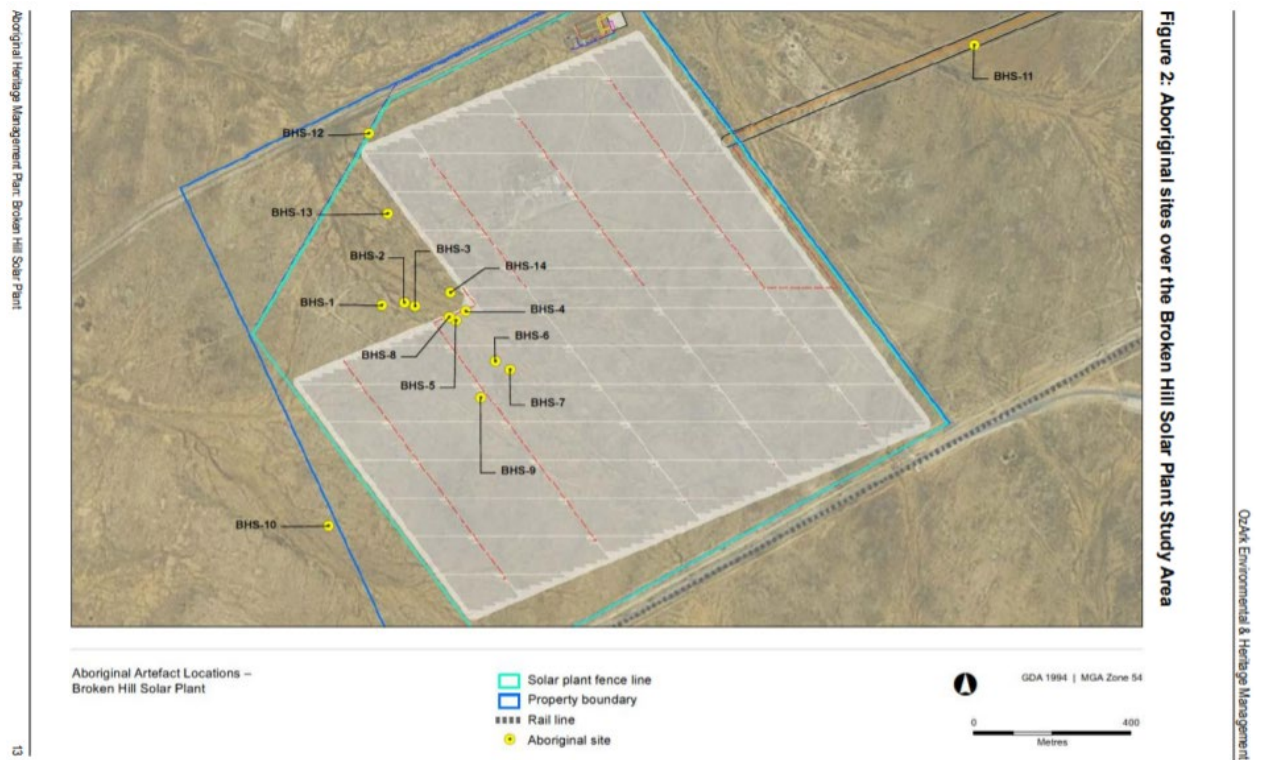
6.5.14 Heritage Management

Prior to the construction phase, an Aboriginal Heritage Management Plan (AHMP) was commissioned by AGL and prepared by OzArk Environmental and Heritage Management (October 2013). This AHMP was developed in consultation with registered Aboriginal stakeholders and the NSW Office of Environment and Heritage (OEH).

The AHMP recorded 14 Aboriginal sites, 13 of these sites are located within the main Project Area with a one further site identified adjacent to the transmission line easement. The majority of these sites were located in bare alluvial fan washout areas associated with the narrowly incised ephemeral drainage channels that trend from southeast to northwest across the study area. The sites identified were either isolated stone artefacts or low density stone artefact scatters. Three raw material types were identified, being silcrete, chert and quartz, with silcrete being dominant. Detailed descriptions of each site are provided in the AHMP.

The eight Aboriginal sites within the Impact Footprint of the project (BHS-4, BHS-5, BHS6, BHS-7, BHS-8, BHS-9, BHS-12 and BHS-14) were salvaged via surface collection and have had Aboriginal Site Impact Recording Forms (ASIRFs) produced and lodged with OEH.

Sites BHS1, BHS-2, BHS-3, BHS-10 BHS-11 an BHS-13 need to be protected through both the construction and operational phases of the solar plant. Refer to the Aboriginal Heritage Management Plan Broken Hill Solar Plant - OzArk Environmental and Heritage Management Pty Ltd (October 2013) for more information: https://www.agl.com.au/-/media/aglmedia/documents/about-agl/how-we-source-energy/broken-hill/141001_au1-1411653-fs-cempbroken-hill-solar-pv-power-station-final-rev-3.pdf?la=en&hash=3C298C4E4FF489400333DE325CE51049 .



Unexpected cultural heritage finds

If during operations, a person believes or knows that they may have discovered a cultural heritage place and/or object, they must:

- Immediately stop work at the find location; and:
 - Do not remove or disturb the find;
 - Secure the find by creating an exclusion zone to prevent disturbance, removal or interference; and
 - Record the location of the find, to assist with undertaking notification and/or reporting.
- Notify the relevant AGL Leader and/or the Environment Business Partner, and all site personnel of the find ; and
- Wait until notice is received from the relevant Leader(s) and/or the Environment Business Partner on how to proceed.

If required, the site must apply for an exemption, permit or authorisation for the recovery of the object and/or human remains. Conditions prescribed in the exemption, permit or authorisation must be adhered to.

The discovery of a cultural heritage place and/or object must be reported, as soon as practicable, to the relevant regulatory authority(ies).

If it is reasonably likely that the cultural heritage place and/or object found is of indigenous origin, the site must also notify and consult with the relevant indigenous community(ies) or representative(s).


In the event of uncovering human remains, personnel must:

- Immediately stop any works being carried-out within the area where the human remains have been discovered and restrict access to the area;
- Report the discovery to the Police, as soon as practicable, and to the relevant regulatory authority(ies) if required; and
- If it is reasonably likely that the human remains found are of indigenous origin, the site must also notify and consult with the relevant indigenous community(ies) or representative(s).

6.6 Environmental Monitoring

Environmental monitoring during the operations stage of the development will be conducted to ensure that the objectives of the EHS manual, the AGL BHSP OEMP and Approval Conditions (Section 1.3) are being met. Specifically monitoring will include field measurements taken during inspections e.g. dust level observations taken during monthly environmental inspections, which are required to ensure ongoing compliance to the Consent Conditions set out in this EHS Manual & the AGL BHSP OEMP.

Refer to Section 6.5.1 for a summary of the environmental monitoring requirements at the site and the corresponding means for recording the observations and or measurements, as well as the person



responsible. The monitoring forms listed relate to each of the environmental management activities and controls that will be implemented during the operations stage.

6.7 Environmental Reporting

First Solar will report against commitments as listed the following table. A description of the operational reporting requirements, as listed in consent conditions C8 for the site is provided in the table below.

Contact details for all entities to which reports must be provided are provided in the Section 11 of the AGL BHSP OEMP.

Report Type	Scope	Frequency	Reported by	Report to
Incident Reporting	Any incident that has caused, or threatens to cause, material harm to the environment.	Immediately, otherwise at the earliest opportunity	Plant Supervisor or their delegate	Owner (AGL will contact Director General of Department of Planning and Environment, NSWFB, EPA, Ministry of Health, WorkCover NSW, and Bogan Shire Council as required. Within 7 days of the date of the incident, provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested as required.
Incident Reporting	For any other incidents (i.e. non-trivial) incident (but not material harm)	As soon as practical after the applicant becomes aware of the incident	Plant Supervisor or their delegate	Owner (AGL)
Complaints Reporting	Complaints received by First Solar or its subcontractors	As soon as complaints are received	Plant Supervisor or their delegate	Owner (AGL)

AGL has provided project updates throughout construction and will continue for operations on the external website as required under consent condition C9. Updates on the external website include:

- Broken Hill Solar Plant Environment Assessment report;
- Broken Hill Solar Plant Project Approval;
- Broken Hill Solar Plant Submissions and Preferred Project Report;

- Broken Hill Solar Plant EPBC Referral
- Broken Hill Community Consultative Committee agenda, meeting minutes and presentations.

6.8 Compliance Tracking

In addition to the environmental monitoring described in the previous section, this OEMP tracks compliance to each of the relevant consent conditions and mitigation measures required for the operations stage of the development. This is referred to as the project's compliance tracking program (CTP). On a regular basis the Compliance Tracking Form, and a minimum of every 6 months, is to be kept up to date by First Solar so that project stakeholders (e.g. AGL, Department of Planning & Environment, First Solar) can readily review the compliance status of the operation as required.

The Compliance Tracking Form (Form T01) is contained within Appendix C of the AGL BHSP OEMP. Also refer to Section 10.2 of the AGL BHSP OEMP.

7 Auditing and Management Review

Auditing is the most commonly used means for sites such as the BHSP to check the performance of its OEMP and EHS management system elements against the relevant performance standards.

Auditing should address the following:

- Effectiveness of the implementation of the Consent Conditions and Mitigations Measures in the OEMP (against the Approval Conditions for operations)
- Environmental, health and safety performance of the BHSP site compared to EHS manual requirements (this document)
- Compliance of the EHS management system to the AS 4801 standard for Health and Safety Management Systems.

Where the auditing activity identifies works to be done to address specific observations or non-conformances, these will be prioritised as action items for the BHSP to close out/rectify. Progress on action items will be formally tracked by AGL.

In addition to auditing, there is also a mechanism whereby improvements are captured based on a review of the operation's EHS performance across all of its activities. There are many different ways to review EHS performance, but it often consists of reviews by the operation's management committee with EHS representatives, assisted by technical specialist's e.g. environmental, health and safety specialists. The management review will examine data from the BHSP's performance monitoring from the period which is to be reviewed. The review should identify any gaps, consider what factors might be causing or contributing to those gaps and assign follow-up action items to close any gaps.

The EHS review may also include other matters to generate improvements, including incidents at similar facilities operated by First Solar in Australia or overseas, or new and emerging issues that may be relevant to the facility's operation.

In conducting audits and the management review, JHAs, daily pre-starts, pre-job brief forms, project EHS risk register and forms completed as part of meeting the conditions of consent and mitigation measures (which shall have been kept onsite for at least one year), will be examined. These records shall be made available to the First Solar National HSET Manager or anyone who requests them, for the purposes of auditing, providing oversight, trending, and/or lessons learned.

Compliance to the environmental conditions in this OEMP will be achieved through the internal application of the Compliance Tracking Program Form (refer to Appendix C of the AGL OEMP) on a 6-monthly basis and by an external audit at least once every 5 years. EHS Manual audits are to be undertaken every 5 years. As per the requirement in Consent Condition C16(a), the results of the first compliance status will be reported to the planning regulator (DP&E) within 2 years of the commencement of the operations stage of the development.

A summary of audit findings will be reported as soon as practical after the audit is completed to the planning regulator (DP&E) and published on the NBHSP website.

8 General Safety

8.1 Introduction

This section contains requirements, rules and guidelines for employees that help reduce accidents and injuries. Many of the requirements in this section have been created to ensure compliance with standards issued by various regulatory agencies.

8.2 General Safety Instructions

- Know and understand the safety rules and requirements that apply to the work being performed.
- Follow all safety programs, policies, procedures and work rules.
- Follow your leader's instructions.
- Ensure your own safety and the safety of your fellow workers.
- Ensure there are a sufficient number of qualified workers to perform the work.
- Immediately address any unsafe conditions or behaviours observed in the workplace.
- Immediately report any unsafe condition so that it can be corrected.
- If you encounter an unsafe condition, feel that there is an unaddressed safety concern or are not comfortable with your ability to perform a job...**STOP** and resolve the situation before continuing work.

8.3 General Site Safety Rules

- All contractor personnel working or visiting the site for the first time must receive Safety Orientation Training prior to being allowed access to the array or any equipment.
- All contractor personnel must report to work fit for duty and free of the effects of drugs or alcohol.
- Notify your leader if you are taking prescription drugs that may affect your ability to perform your job safely.
- Personnel shall not consume alcohol or drugs while working or driving.
- All visitors must be escorted while on Site unless they have completed appropriate training and have been approved for unescorted access.
- The use of cameras is not permitted on the Site without authorization from the Plant Supervisor.
- All personnel must wear the appropriate Personal Protective Equipment (PPE) at all times.
- Electrical work shall be performed under a Lockout Tag out and only after the circuit has been tested to ensure a zero energy state.
- Authorization and a Confined Space Entry Permit shall be obtained prior to working in a classified confined space.
- Never walk under a suspended load.
- Smoking is permitted in designated smoking areas only. Dispose of cigarette butts properly.
- Do not use mobile phones while driving or operating equipment.
- Always wear a seat belt in vehicles and do not exceed the posted speed limits.
- All accidents, injuries, spills or environmental incidents and near-miss events shall be reported to the Plant Supervisor or designee as soon as possible. In all cases reports must be made within 24 hours.
- All personnel working onsite shall carry their Construction Safety Induction Card and any applicable High Risk Work Tickets, at all times.

8.4 Emergency Response Instructions

8.4.1 Communication Preparedness

- Emergencies at the Broken Hill Solar Site include medical or environmental emergencies including fire or chemical spill (Figure 2).
- Ensure a two-way communication means is available on site for prompt emergency response, as a minimum this is to be an operating Mobile (Cell) Phone.
- Ensure emergency contact information is readily available. The “Emergency Contact Poster” should be prominently posted in the O&M building for quick and easy access.

8.4.2 Emergency Response

- **CALL 000** or (112 on Mobile phones) if there is doubt about your ability to handle an emergency.
- Immediately contact the Site Supervisor or Designee to inform them of the emergency.
- In the event of an emergency, the safety of people shall always be the **FIRST** priority.
- Attend to any injured personnel in so far as is required to prevent further injury and provided no other person is put at risk in the process.
- All personnel on the site shall be alerted to emergencies by verbal command and directed to a designated Muster Point.

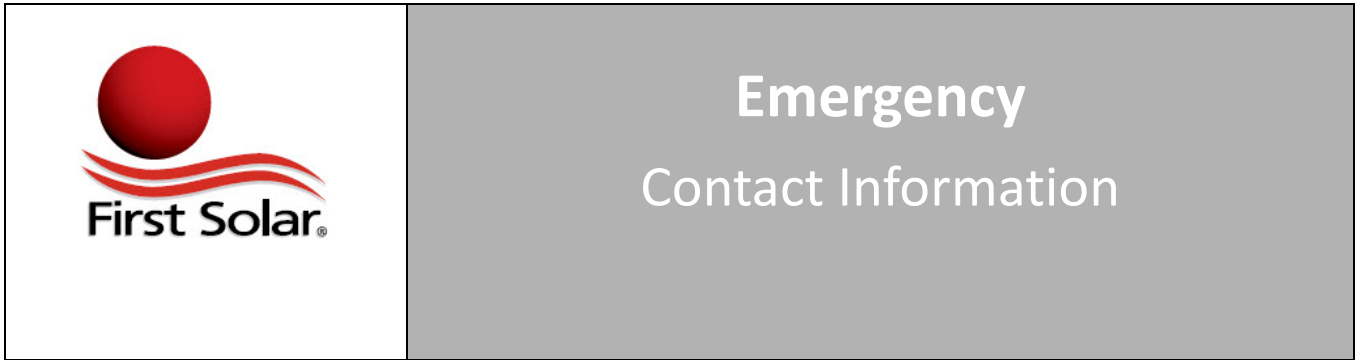
8.4.3 Emergency Muster Point

- The location of the site emergency muster point shall be established before works commences and discussed during the Site Safety Orientation Training.
- Once emergency services have been notified, site personnel shall, at the earliest opportunity, contact the Site Supervisor to report the incident and determine the appropriate course of action.

8.4.4 First Aid

- First Solar will make sure that all its personnel and contractors have access to the necessary first aid facilities and competent personnel as required under safety legislation, including a list of First Aid officers and training requirements.
- A First Aid Kit and an Automated External Defibrillator (AED) are available on site.
- First Aid Kits are available in the O&M Building and in the vehicles.
- An AED is located in the O&M Building

Figure 2 - Emergency Contact Poster



<p>First Solar Contacts</p> <p>Site Supervisor: TBA</p> <p>Site Technicians: TBA</p> <p>O&M Administrator: TBA</p> <p>Director of Maintenance Frank Teofilo – 61-434-687-08</p> <p>Safety Manager</p> <p>FS Occupational Nurse: Michele Youngdale - 0011-1-419-662-7030</p> <p>Local Area Contacts</p> <p>Broken Hill Shire Council: 240 Blende Street, Broken Hill NSW 2880 (08) 8080 3300</p> <p>Ministry of Health NSW: 02 9391 9000</p> <p>WorkCover NSW: 12 10 50</p> <p>RMS Traffic Incident Reporting: 131 700</p>	<p>Emergency – Call 000 (Australia) or 112 (GSM only – global emergency forwarding number)</p> <p>Site Address: Robday Station, Barrier Hwy, Broken Hill</p> <p>Latitude:</p> <p>Longitude:</p> <p style="text-align: center;">Medical Non-Emergency</p> <p>Ambulance: St Johns Phone: 000</p> <p>Hospital/Medical Centre: Regional Hospital Phone: 08 8080 1333 Far West District Hospital 176 Thomas St Broken Hill NSW 2880</p> <p>Fire and Emergency Services: Fire Brigade Phone: 000 State Emergency Services Phone: 132 500</p> <p>Environmental EPA Pollution Line: Phone: 131 555</p> <p>Work Cover NSW: Phone: 13 10 50</p>
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8.5 Fire Safety

8.5.1 Fire Prevention

- Be alert for fire hazards and eliminate such hazards if possible. If fire hazard cannot be eliminated then report it to the Site Supervisor.

- Good housekeeping is one of the most effective aids to fire prevention. Keep work areas clean and clutter-free.
- Waste paper, rags and other combustible material shall not be allowed to accumulate.
- Vegetation on the site should not be allowed to grow such that dry conditions will create a risk of ground fire on the site, or propagate an offsite grass fire throughout the site.
- Explosive or flammable material shall be stored only in approved containers consistent with manufacturer instructions, Safety Data Sheets, local and state agencies or other government authorities responsible for administration of fire codes.
- Explosive or flammable material storage areas shall be located in areas that minimize the propagation of fire to occupied areas or other structures.
- Spark producing equipment shall be prohibited within 20 metres of explosive or flammable storage or where flammable liquids or vapours or bushlands and grass are present.
- Smoking and outdoor cooking equipment shall be allowed only in designated areas. The use of lighters, strike matches and other types of igniter material shall not be allowed outside of these designated areas.
- Outdoor cooking equipment shall not be used, nor shall spark-producing activities be conducted when wind gusts are periodic or during periods of high velocity sustained winds.
- Be familiar with the operation and use of fire prevention, detection, and suppression equipment at the site.
- Flammable and Combustible Liquid Storage
- Store all flammable and combustible liquid containers in a fire proof cabinet designed to safely store such materials.
- Cap containers containing flammable and combustible liquids securely when not in use.
- Use only approved containers for handling and dispensing flammable and combustible liquids.
- Label cans of flammable and combustible liquids in accordance with the Hazard Communication program.

8.5.2 Fire Detection and Alarms

Fire detection equipment is installed in the O&M and **PVCS** buildings, the SCC and the **STORE**. These detectors:

- activate alarms locally
- shall be checked annually with a smoke generator
- Shall have the battery replaced annually as applicable.

8.5.3 Fire Response

- Evaluate the location, type, and size of the fire to determine necessary actions.
- If fire is large or you are not sure of your ability to successfully fight the fire then **evacuate** the area and **call 000**.

- If you believe you can fight the fire, notify the Site Supervisor first before using a fire extinguisher to put out fire.

8.5.4 Fire Department Site Access

- The Site does not have a fire department accessible lock that shall be confirmed as in, access will be via communication with the site personnel
- The address and name of the Facility shall be clearly posted and lighted or otherwise illuminated.

8.5.5 Fire Extinguishers

- Fire extinguishers are installed in each of the PVCS and in the SCC, the **STORE** and the O&M building.
- Specific fire code requirements address how and where fire extinguishers are located within a building, therefore the current location of mounted fire extinguishers shall not be changed unless approved as a result of a building code review by a qualified person.
- Fire extinguishers should also be available within each Company vehicle. Due to high internal vehicle temperatures that may exist in vehicles in desert climates, fire extinguishers may need to be removed or checked frequently when the vehicle is not in use.

8.5.6 Fire Extinguisher Inspection and Maintenance

Fire extinguishers shall be checked monthly to verify:

- no visible damage or obstructions
- proper charge/pressure,
- accessibility/availability,
- Signage/markings and labelling/certification tags.

Fire extinguishers shall be checked annually by a qualified vendor or Fire Marshall certified inspector to ensure compliance with AS1851.1.

- Level 1 Six Months
- Level 2 Annually
- Level 3 Five Year Intervals
- Level 4 After Extinguisher use/discharge

8.5.7 Fire Extinguisher Documentation






- Document fire extinguisher inspections on a Fire Register maintained on site.

8.5.8 Fire Extinguisher Replacement

- Replace fire extinguisher after use

- Replace fire extinguisher when found defective
- Replace fire extinguisher if found out of specification or passed inspection due dates.

Figure 3 – Fire Extinguisher Types

Colour band	Type of extinguisher	
	Water	
[white]	Dry Powder	
	Wet Chemical	
	Foam	
	Carbon dioxide	

8.5.9 Fire Extinguisher Use

Remember the **PASS** method of fighting fires with an extinguisher.

- Hold the extinguisher upright
- **P**ull the Pin
- **A**im for the base of the fire
- **S**queeze the handle
- **S**weep the base of the fire

8.5.10 Fire Watch

- A designated fire watch person or spotter is required during the performance of the following work: Hot work, including but not limited to welding, brazing and grinding of metal and when vehicles or equipment are used in areas of high dry grass areas that have high temperature under carriage exhaust systems such as catalytic converters. All hot works will be undertaken as per First Solar hot work permit.
- A designated fire watch shall not be involved in the performance of the hot work and will monitor area for 30 minutes after task completion.
- A designated fire watch person shall have immediate access to the appropriate class of fire extinguisher and will have been trained in the proper use of that extinguisher.

8.6 Accident, Injury, Environment incident and Near-Miss Reporting

A vital part of performing quality work includes the ongoing responsibility for each worker to evaluate working conditions for themselves and their co-workers and to promptly report any unsafe conditions or any condition which may lead to or cause a safety violation.

First Solar will not terminate, discipline, or otherwise discriminate against any employee for bringing safety or environment concerns to the attention of supervision.

In addition employees may contact the New South Wales Worksafe. For environmental incidents, AGL is to be notified. Refer to Section 8.6.5 below.

Employees have an obligation to cooperate in any Company or AGL review or investigation of an identified concern or issue, even if they did not raise the concern or issue under investigation.

CALL 000 if there is doubt about the extent of an injury/illness or other emergency situation. Immediately contact the Site Supervisor and request assistance.

All incidents that cause, or have the potential to cause personal injury or damage to property or the environment must be reported and investigated to prevent re-occurrence.

8.6.1 What is to be reported?

- All injuries or illnesses, regardless of severity, sustained by employees, contractors and visitors or members of the public.
- Any site property damage.
- Any damage to the environment
- Any hazard or near-miss incident which has the potential for injury, illness or damage to the environment, property or assets.
- All LTI, medical treatment injuries and first aid injuries are to be reported.

8.6.2 Why is it to be reported?

- To initiate the process of assessment of risks associated with a hazard or incident and investigation of its causes, so that corrective actions can be implemented to prevent future occurrences.
- To allow us to learn from the experience of others, thus maintaining a prevention focus.
- One of the Project's consent conditions (C8) is that the "Applicant (AGL) shall notify, at the earliest opportunity, the Director General and any other relevant agencies of any incident that has caused or threatens to cause, material harm to the environment". First Solar's rapid response in reporting incidents to AGL is critical in enabling AGL to meet this reporting obligation.

8.6.3 How are incidents to be reported?

- All site personnel to verbally report incident to Supervisor or Site Supervisor.

- The Site Supervisor or designee will notify their manager of an event and a Safety Log shall be completed in Plant View documenting the event.
- LTI, medical treatment injuries first aid injuries, environmental incidents and near misses are to be reported to the owner (AGL).
- AGL will then, as required, escalate any incidents to the required authorities.

8.6.4 When are incidents to be reported?

- Incidents should be verbally reported to Supervision or Site Supervisor immediately.
- The submission of a Safety Log shall be made within 24-hours of the event.
- When medical service off-site is required, the Site Supervisor or designee shall drive or escort the person to the medical service provider.

8.6.5 Environmental Incidents

The First Solar Environmental Manager & Site Operations Manager in conjunction with AGL will determine if an incident has caused or is threatening to cause to material harm to the environment (Under POEO Act C148). First Solar is to provide AGL with incident details relevant to maintenance-specific incidents to enable AGL to meet statutory obligations.

If it is determined that material harm has or is likely to occur, AGL will, if required, notify the relevant authorities immediately (see details below). AGL is also responsible for notifying the Director-General at the earliest opportunity. Within 7 days of the date of the incident, AGL shall also provide the Director-General and any relevant agencies with a detailed report on the incident.

The authorities to be notified, in order of priority, are as follows (Refer to contacts in Figure 2):

- Fire and Emergency Services: In the event of a spill or fire, the Fire Brigade should be called on 000. State Emergency Services should be called on 132500.
- Environmental Protection Authority (EPA): 131555.
- Ministry of health (via local Public Health Unit): Local Hospital is Broken Hill (08) 8080 1333
- WorkCover NSW: 121050
- Broken Hill City Council: (08) 8080 3300

8.7 Event Investigation Process

Investigations into health, safety and environment incidents may be conducted by the Site Supervisor, the HSE Manager or in the case of a significant event a special Lead Investigator shall be appointed by Senior Management. The process is described as follows:

- In incidents where the Site Supervisor is involved in the event, the EHS Manager or a third party shall conduct the investigation.
- The initial investigation (fact finding and interviews) should be completed within 24 hours of the accident.

- Root Cause Investigation methods (such as TapRoot) should be used to identify the causal factors of the incident and associated root causes.
- The Event Investigation Report should identify root causes to the event and recommended corrective actions that are designed to prevent re-occurrence.
- A copy of the Event Investigation Report shall be kept on file at the Site or in POWER. A signed copy of the final report should be forwarded to the EHS Manager for regulatory reporting, workers' compensation, and trend analysis purposes. This will apply to health, safety and environment incidents.
- Additionally all reportable injuries under the Work Health & Safety Act 2011, must also be notified to the plant owners (Broken Hill Solar Farm Pty Ltd) within 24 hours of the incident occurring. Further within 2 business days of the injury an interim report must be made to the owner, which gives full details of the injury and interim recommendations for prevention of a recurrence. Finally within 5 business days of the injury, a final full written report must be sent, which gives complete details of the injury and formal recommendations for prevention of a recurrence.
- Reporting of environmental incidents should be done as soon as practical to the Owner and external authorities as described in Section 6.4.7.

8.8 Fit-for-Duty Policy

First Solar is committed to providing a safe and healthy work environment for its employees and subcontractors and others. In order to provide a safe work environment, personnel must be “fit for duty”, be able to perform their work tasks in a safe, secure, productive, and effective manner, and remain able to do so for the duration of the shift.

“Fit for duty” means an individual is in a state (physical, mental, and emotional) that enables them to perform work tasks competently and in a manner that does not threaten the health and safety of themselves or others, including negatively impacting the environment.

All personnel shall:

- Manage their health in a manner that allows them to safely perform their work tasks.
- Arrive at the site fit for work and able to perform work tasks in a safe, secure, productive, and effective manner for the duration of the shift.
- Notify their Supervisor or Site Supervisor when they are not fit for work and to declare any medication and/or situations/concerns which may have an impact on their ability to perform work.
- Notify their Supervisor or Site Supervisor when they observe a co-worker acting in a manner that indicates that they may be unfit for work.

8.9 Drug and Alcohol Policy

It is against Policy to be under the influence of, or to sell, distribute or possess alcohol, narcotics, depressants, stimulants, hallucinogens, marijuana and any other mind altering drugs, when reporting for work, unless the individual has been legally prescribed prescription medication, assessed and certified by the prescribing medical practitioner/dentist as "Fit for Duty".

First Solar employees and its contractors shall complete an initial Drug and Alcohol (D&A) screen prior to mobilisation to the Site, coordinated by First Solar and kept confidential.

In addition to the initial D&A screen, First Solar may also conduct the below D&A screens at the site, these include:

Random Screening - A random selection of personnel are chosen to be screened on any given day or shift. This is usually a percentage of the First Solar employees, subcontractors or visitors present at the Project Site.

For Cause / Fit for Work Screening – D&A screening can be conducted to allow Managers and Supervisors to challenge a subordinate or co-worker's fitness for work.

Post-Accident Screening – A drug and alcohol screening will be conducted after any accident or injury event. The Plant Manager/Supervisor will coordinate getting testing conducted. Workers will not be allowed to return to work until screening results are in and evaluated.

8.10 Fatigue Management Policy

First Solar recognises that most people will suffer from fatigue from time to time, either due to work conditions and/or pressures, or as a result of activities conducted outside of work, or a combination of both. The guiding principle of fatigue management is that personnel must be fit to complete their assigned work tasks in a manner that ensures the safety of themselves and co-workers.

8.10.1 What is Fatigue?

Fatigue is a physical condition that can occur due to the following:

- Physical exertion;
- Mental exertion; or
- Inadequate quality or quantity of sleep.

8.10.2 Signs and Symptoms

Fatigue can cause reduced performance and productivity, and increase the risk of incidents. Typical signs and symptoms of fatigue include but are not limited to:

- Chronic tiredness or sleepiness
- Headache/Dizziness/Poor concentration
- Sore, weak or aching muscles
- Slowed reflexes and responses

- Impaired decision-making and judgement
- Impaired hand-to-eye coordination/Blurry vision
- Hallucinations
- Reduced ability to pay attention to the situation at hand

8.10.3 Fatigue Self-Assessment

If you are feeling the effects or symptoms of fatigue notify you're Supervisor as soon as possible for evaluation and discussion of options. As a guide a 10 minute break is recommended every 2 hours of continuous work in fatigue inducing conditions.

8.11 Heat Illness Prevention

Heat stress is the total heat burden to which the body is subjected by both external and internal factors. Heat stress may cause heat illness, a physical response designed to reduce body temperature.

8.11.1 Types of heat illness include

- Discomfort - flushed skin, increased sweating, heat rashes (prickly heat), increased sweating, depleting the body's fluid.
- Mild heat illness - feeling tired, weak or dizzy, cramps, reduced work capacity, reduced attention span and irritability.
- Heat exhaustion - fainting, headache, low blood pressure, nausea, clammy, pale or flushed skin, normal to high body temperature (up to 39C).
- Heat stroke - irritability, confusion, speech problems, hot dry skin, convulsions, unconsciousness, body temperature above 40C, cardiac arrest - potentially fatal.

Typically people who are medically unfit and are on certain medications, overweight, have heart disease, are pregnant, abuse alcohol, or are not acclimatized, are at a greater risk of heat stress. Some people are less tolerant of heat than others.

8.11.2 Controls to reduced heat stress include but not limited to

- Replace lost fluids (drink more water, juice, sports drinks or other non-alcoholic drinks). Drinks of 100-200ml water at frequent intervals will be adequate to reduce fluid loss in sweating.
- When the ambient temperature is greater than 40°C a 10 minute rest break in a cool place should be taken each hour. When ambient temperatures exceeded 45°C no outdoor work should be undertaken until the temperature recovers to below 40°C.
- Minimize caffeine, carbonated drinks, alcohol and tobacco use.
- Do not take salt tablets unless your doctor has specifically advised you to do so.

- Inform your direct Supervisor or Manager if you have an underlying health condition that may increase your risk of heat stress.
- Wear cool clothing, a wide brimmed hat and use sunscreen.
- Take a break and inform your direct Supervisor if feeling dizzy or having trouble concentrating.

8.12 High Risk Work License

First Solar employees and its contractors shall have a “High Risk Work Licence, (record of training held in an onsite register by First Solar) in the event they are required to undertake any of the following work:

- Scaffolding - basic, intermediate and advanced
- Rigging work - dogging; basic, intermediate and advanced rigging;
- Crane and hoist operation - tower; self-erecting tower; derrick; portal boom; bridge and gantry; vehicle loading; non slewing mobile; slewing; materials hoist; personnel and materials hoist; boom-type elevating work platform; vehicle mounted concrete placing boom
- Forklift operation - forklift trucks; order-picking forklift trucks
- Pressure equipment operation - basic, intermediate and advanced boiler operation; turbine operation; reciprocating steam engine operation.

8.13 Housekeeping / Orderliness

The following are general rules of good housekeeping and orderliness that improve the site’s functioning;

- Scrap, trash and other wastes shall be placed in the appropriate designated containers.
- Waste shall be placed in containers specifically designated for that material.
- Areas shall be cleaned up as the work progresses.
- Cords and hoses shall not be routed in walk ways. They should be routed, preferably overhead, in a manner that shall not present a tripping hazard.
- Tools and equipment shall be properly stored in a stable position (tied, stacked or chocked) to prevent rolling or falling.
- Cleaning materials and consumables shall be kept in approved containers and stored properly.
- Safe access to all work areas and emergency exits shall be maintained.
- Do not block emergency equipment, electrical disconnect switches or breaker panels. Cables, ropes, barricade tape, hoses, or shielding shall not be attached to such equipment.

- Work areas shall be checked at the beginning and end of each shift to ensure safe conditions.
- Work areas shall have adequate lighting.

Personnel must take responsibility for identifying housekeeping hazards that contribute to an unsafe work environment by reporting them promptly to their immediate supervisor or by removing the hazard.

8.14 Interaction with Fauna

- A variety of snakes are local to Region. Snakes are attracted by potential food and good places to hide. They typically travel through long grass, amongst leaf-litter or under shrubbery or debris.
- Under no circumstances shall personnel ever attempt to catch or kill a snake. Snakes are protected by legislation and it is a criminal offence to harm one. The penalty for harming a snake includes a potential fine.
- It is also against the law for unlicensed persons to attempt to trap or catch snakes. The vast majority of snake-bites occur when individuals are trying to catch or kill snakes
- If personnel see a snake, they are requested to walk quietly away and leave it alone. The snake should leave of its own accord, or if it requires to be moved, the Site Supervisor shall contact the local snake (fauna) handler for assistance.
- When equipment, vehicles, offices with open doors, are left unattended or open for extended periods it has the potential to become habitat for native species. Unfortunately, some native species such as snakes, spiders, and bees can be a serious hazard for Employees.
- Employees when opening equipment should always be alert for the presence of hazardous species of reptiles and insects.
- Snakes and spiders do not typically reside in areas where there is not a food source, so good housekeeping can reduce the probability of infestation and assist in identifying if these species are present. Most food sources will only exist when water also exists, so eliminating water sources can also be an effective deterrent.
- Employees should always be alert to the sounds of bees and not open doors to unoccupied buildings without appropriate caution. The noise of a bee colony can usually be heard or seen with a cautious approach (e.g. knocking before entering and listening).
- Specific seasons of the year, particularly as seasons move from cold to warm temperature, cause some species such as bees and snakes to become very active and mobile. Seasonal conditions such as heavy rains cause some species to take shelter, such as spiders.

8.15 Office Safety

- When using stairs, hold handrails to maintain two points of contact.

- Keep stairways, hallways, aisles and walkways clear of clutter and tripping hazards.
- Go around corners slowly to avoid collisions.
- Do not run or slide across floors or through doorways.
- Open doors slowly to avoid striking someone on the other side.
- Use door handles, do not push on glass panes on doors.
- No smoking in offices or storage areas.
- Keep desks, file and cabinet drawers, door slides and locker doors closed when not in use.
- Know the location of emergency exits, fire extinguishers, and first aid kit.
- Use proper ladders or portable steps to gain access to elevated materials and equipment.
- Do not use chairs, desks, or tables as a substitute for proper ladder.
- Ensure all power cords and extension cords are properly insulated and placed so to not create a tripping hazard.
- Do not store materials on top of racks or shelves within 50cm of light fixtures, light bulbs, or sprinkler heads.
- Do not store materials in front of mounted fire extinguishers or within 40cm of electrical panels.
- Principles of good housekeeping should be adhered to.

8.16 Office Ergonomics

- Stretch the areas of the body required to perform an action prior to (and during) performing significant manual or repetitive tasks.
- Choose tools that incorporate good ergonomic design whenever possible
- Avoid repetitive motion injuries by periodically changing to tasks that require different motions.
- Ensure your computer workstation is designed to fit your needs. The chair, keyboard, monitor, and documents should be at the proper height, distance, and angle to fit your individual needs.

8.17 Personal Protective Equipment (PPE)

8.17.1 General PPE Instructions

Inspect all PPE prior to use to ensure it is safe, properly assembled and not visibly defective.

Personal Protective Equipment (PPE) shall be maintained in a sanitary and reliable condition. Supervisor will enforce this requirement for all employees and First Solar deployed contractors. Damaged or

otherwise unserviceable PPE shall be properly disposed of and replaced. Contact the Site Supervisor or your supervisor immediately for replacement of damaged items.

Personnel shall be trained and must demonstrate that they understand the following:

- when PPE is necessary;
- what PPE is necessary;
- how to properly adjust, wear and use PPE;
- the limitations of the PPE;
- The care, maintenance, useful life and disposal of PPE.

8.17.2 Minimum PPE Requirements

PPE requirements are based on Job Hazard Analysis (JHA) for the specific work that is to be performed. Minimum PPE requirements have been established for routine work such as site tours and visual inspections. These minimum requirements are:

- Hard Hat – AS 1800:1998
- Safety Glasses – AS 1337:1991
- Safety Shoes – Safety Toed with Electrical rated soles preferred. AS 2210.1:1994
- Work Clothing – No shorts, sweatpants or sleeveless shirts allowed. Long pants and work type shirt (long or short sleeved). Site Technicians are required to wear Arc Rated (FR) clothing as part of their regular work uniform (HRC 2 or ≥ 8.1 cal/cm²)
- Work Gloves – Leather or Dyneema shall be carried if there is a possibility of material handling. AS 2161.1:2000

8.17.3 Additional PPE

Based on the job you are performing additional PPE may be required. The type of PPE shall be identified in the Job Hazard Analysis (JHA) required prior to the beginning of each job.

Additional PPE may include:

- Arc Rated (FR) Clothing – Arc rating is based on Arc Hazard Analysis and is typically identified on Equipment Arc Flash Hazard Labels. Clothing may include shirt and pants or could include higher rated Arc Flash Suits. AS 4836: 2011 and ENA NENS 99 – 2006.
- Arc Flash Face Shield – Arc Flash Face Shields are required where hazards are HRC 2 or above.
- Hearing Protection – For areas posted as greater than 85db or where noise levels make it difficult to hear another worker speaking.
- Safety Vest – In areas with high traffic to improve visibility
- Kevlar or cut resistant gloves – For glass handling activities

- Protective Chemical Clothing – If exposed to or handling chemicals
- Insulated gloves for electrical work

8.17.4 Company Provided PPE

The company provides PPE includes hard hats, safety eyeglasses, hearing protection, and work gloves. These items can be obtained by contacting your Supervisor or the Site Supervisor.

8.17.5 Reimbursement

At some sites the Company will reimburse employees up to a certain amount on the purchase of approved protective footwear, and prescription safety eyeglasses. Contact your Supervisor for additional information.

8.17.6 Work Clothing

Arc Flash Clothing including a shirt covering the shoulders and trousers covering the legs and ankles shall be worn at all times when working on or near energized electrical equipment.

Arms—When working in the vicinity of energized lines or equipment (both high and low voltage), on high temperature lines, grinding, welding, or other high exposure hazards to the arm, full-length sleeves shall be worn.

Legs—Workers should not have cuffs on trousers when welding or performing any job that produces sparks.

8.17.7 High Visibility

High Visibility vest or clothing is required to be worn when:

- In designated areas of the site
- Working along roadside areas when traffic is high
- Identified as PPE in the Job Hazard Analysis

8.17.8 Head Protection

- Hard hats (AS 1801 compliant) in good condition and worn properly, shall be worn in all posted “hard hat” area, beneath any overhead work (e.g. below ladders, scaffolds, open gratings, or any other openings), and in any other area where head-bumping hazards exist
- Protective headgear shall be worn following the manufacturer's guidelines. Headgear should not be reversed with the brim in the neck. (For welding operations obtain headgear designed for that purpose)
- Prior to use hard hats should be checked for cracks and penetrations, and assure that the suspension system is in good condition.
- Company and employee's name should be on the hard hat.
- Only company provided stickers can be placed on the shell of the hat.

- Utilization of face shields, flashlights, or hearing protection is acceptable using standard fastening devices, following the manufactures guidelines and instructions.

8.17.9 Eye/face Protection



CAUTION: First Solar modules should be handled in the same manner as a piece of glass. The use of safety glasses is required to protect from eye injuries when handling a First Solar module whether the module is intact or damaged.

- Safety glasses with side shields, goggles, full-face shields, and burning goggles shall be worn as necessary for the work being performed. (AS 1337 compliant)
- Before beginning work, every Associate should inspect safety eyewear for damage and scratches that could impair vision.
- An Associate who wears prescription lenses should wear safety eyeglasses that incorporates the prescription in its design or should wear safety eyeglasses that can be worn over eye prescription lenses without disturbing the proper position of the prescription lenses. Contact lenses do not provide eye protection, and safety glasses shall be worn with them when eye protection is required.
- Safety Glasses with dark lenses shall not be worn indoors or in poorly lit areas. Consult local site requirements for additional clarification.
- Only non-vented safety goggles shall be used while working with chemicals.

8.17.10 Hand Protection



CAUTION: First Solar modules should be handled in the same manner as a piece of glass. The use of cut-resistant gloves to protect from lacerations is required when handling a First Solar module whether the module is intact or damaged.

- Wear gloves when performing work that could result in cuts or slivers to the hand or pinching hazards exist. (Refer to Module Replacement procedure, FS.OM.CM.01).
- In all cases gloves appropriate to the job being performed shall be worn unless the task cannot be completed wearing gloves or they pose a greater hazard (e.g. while operating rotating equipment).
- Rubber Gloves (AS 2225 compliant) should be insulated to the highest voltage expected for the work being performed.

8.17.11 Foot Protection

- Personnel shall wear suitable industrial grade work shoes in good condition while working.
- Footwear such as sneakers, loafers, moccasins, and canvas top shoes are not suitable work shoes for physical work environments.
- Approved safety shoes (AS 2210.2 compliant) shall be worn in areas where mechanical, electrical, or construction work is being performed or areas where there is an increased risk of foot injury
- To help support ankles, high top shoes with laces should be worn by workers whose normal work requires climbing of poles and steel structures.

8.17.12 Hearing Protection

- Hearing protection (AS 1270 compliant) such as ear plugs and earmuffs shall be worn in all posted or designated areas.
- Hearing protection shall be worn:
 - in all posted areas,
 - When operating equipment or tools that produce a sound exceeding 85 decibels (even if the work area does not require it), and when any risk of noise exposure exists.
- Note: Normal conversation is 50-60 decibels. If you or someone else needs to raise their voice level to be heard you should be wearing hearing protection.
- Use Manufacturer's instructions for inspection, care and proper usage of hearing protection.
- Double hearing protection is required where noise levels have the potential to exceed 100 decibels.

8.17.13 Respiratory Protection

- Wear respiratory protection (for example, for dust and fumes) in work situations where other means have not eliminated respiratory hazards.
- Ensure a qualified person or safety manager prescribes the correct respirator.
- All employees using respirators must receive annual training on respiratory protection.
- Ensure all respiratory equipment users are familiar with the maintenance, instructions and cleaning and storage requirements for the type of respiratory protection they are authorised to use.

8.18 Personnel Work Policy

8.18.1 Personnel Working Alone

- The risk of injury or harm to an individual who works alone may be increased because of difficulty contacting emergency services when they are required. Emergency situations may arise because of the sudden onset of a medical condition, accidental work-related injury or disease, attack by an animal, exposure to the elements, or by becoming stranded without food or water. The consequences may be very serious and the injury or disease may be fatal.
- A person is alone at work when they are on their own, when they cannot be seen or heard by another person, and when they cannot expect a visit from another worker or member of the public for some time.

8.18.2 Personnel Working at Night

- There may be a requirement to work at night, this poses several additional hazards and risks to personnel than normal day working; these are typically related to visibility and the ability to move around the Site safely.

- Working at night requires some specific activities to occur (during daylight hours) to ensure the night shift personnel are assisted and protected from hazards and risks. For example, appropriate lighting equipment must be in place to provide adequate illumination of the work area and immediate surrounds to ensure personnel have optimal visibility.
- All work at night shall be assessed and approved by the Site Supervisor.

8.19 Site Access Requirements

8.19.1 Site Deliveries

- Delivery Drivers shall stop at the gate or at the O&M building to contact site personnel for all deliveries.

8.19.2 Site Visitors

- A visitor is a person who attends the site solely to conduct a site inspection, attend a meeting, or make a delivery or pick-up (Note: they do no physical work at the site)
- Visitors having a reason to enter the site (outside the O&M Building) must complete Site Safety Orientation Training.
- All Visitors shall be escorted at all times while on the site until authorized for un-escorted access by the Site Supervisor.

8.19.3 Visitor/Contractor Site Access Requirements

Prior to entry onto the site (outside the O&M Building) all Contractors and Visitors must:

- Have a reason to enter the site
- Have proper attire (suitable work clothing appropriate for work at the site)
- Be Fit-for-Duty
- Complete Site Safety Orientation Training (see following)

8.20 Hand and Power Equipment

8.20.1 Power Tools

- All hand-held power tools and appliances are protected by an RCD.
- Where available, only double insulated power tools are used at the site.
- Power tools, leads and plugs are regularly tested-and tagged for external damage or makeshift repairs.
- Do not use tools if the casing, cords or plugs are broken or damaged.
- Do not adjust tools without first switching off and removing the plug from the outlet.

8.20.2 Hand Tools and Equipment

All personnel required to use hand tools and/or power equipment, including chain saws, brush cutters, powder-actuated tools, and similar high-hazard implements, are appropriately trained to enable the safe operation of such equipment.

General HSE requirements include but not limited to:

- Use the right tool for the job.
- Don't use broken or damaged tools, dull cutting tools, or screwdrivers with worn tips.
- Cut in a direction away from the body.
- Make sure grip and footing are secure when using large tools.
- Keep tools secure at all times when working at heights.
- Pass a tool to another person by the handle - never throw a tool.
- Use the right PPE for the job.
- Never carry sharp or pointed tools such as a screwdriver in a trouser pocket.
- Select ergonomic tools for the work task, particularly when movements are repetitive and forceful.
- Ensure tools are always kept in good condition.
- Store tools properly at the end of shift.

Personnel shall also inspect all hand tools and power equipment on a regular basis. Defective tools or equipment shall be immediately removed and tagged Out Of Service or destroyed to prevent further use.

8.21 Material Handling and Storage

8.21.1 Musculoskeletal Injuries

A musculoskeletal disorder is an injury or disease of the musculoskeletal system. Musculoskeletal disorders may arise in whole or in part from performing manual tasks in the work environment, whether occurring suddenly or over a prolonged period of time.

Musculoskeletal disorders include body-stressing injuries and conditions such as:

- Sprains and strains of muscles, ligaments and tendons (e.g. back strain).
- Joint injuries or degeneration (e.g. frozen shoulder or arthritis of the back).
- Disc protrusions, disc herniation or disc degeneration of the back or neck.
- Nerve injury or compression (e.g. carpal tunnel syndrome).
- Muscular and vascular disorders (e.g. vibration-induced white finger from hand-arm vibration).

- Soft tissue injuries.

Musculoskeletal disorders may result from:

- Gradual wear and tear caused by frequent or prolonged periods of performing manual tasks.
- Sudden damage caused by intense or strenuous manual handling or awkward lifts.
- Direct trauma caused by unexpected events.

8.21.2 Preventing Injuries

Prior to undertaking any manual handling activity, personnel must evaluate the object and the required task to determine if they can handle the object safely.

Some evidence shows that the risk of back injury increases significantly with objects over 16 kg, therefore, from the standing position it is advisable to keep the load below this weight. In seated work, it is advisable not to lift loads in excess of 4.5 kg.

In the event personnel are in doubt about whether they can safely move the object by themselves, additional manual or mechanical help should be obtained or the task should be avoided.

If a heavy object is to be moved to another location, the safest transport route should be determined prior to the activity. The area around the object and the route over which it will be transported should be checked for slip, trip, and fall hazards. Hazards should be removed prior to initiation of the task.

The object to be moved should be inspected for pinch points, grasping or handling hazards, including slivers, sharp edges, grease, water, etc. Eliminate or abate any identified hazards where possible. Safe grasping or handling points on the object should be determined.

The Code of practice for Manual Tasks applies to all work environments in NSW covered by the OSH Act and with this the First Solar Site Supervisor shall ensure that adequate guidance is provided to all Project Site personnel regarding the identification, assessment and control of HSE hazards and risks associated with manual tasks.

Materials shall be stacked, stored, or positioned so it does not create a falling hazard and can be reached safely by personnel and material-handling equipment. All protruding nails, wires and ragged metal edges shall be removed or hammered flush before handling.

8.21.3 Material Handling/Lifting

The solar module assemblies used at this Facility weigh approximately 12 Kg.

Never try to lift modules or anything that cannot be lifted easily, is awkward to move or which will block your vision in the direction of movement. Check for stability by testing the weight carefully either by pushing or lifting at one of the corners.

The following proper lifting techniques shall be observed at all times:

- Make sure you have a clear path to carry the load, and a place to set it down.
- Bend the knees, place your feet close to the object and centre yourself over the load.
- Get a good hand-hold.

- Lift straight up, smoothly, and let your legs do the work, not your back!
- Exhale as you make the lift.
- Do not twist or turn your body while carrying the load.
- Set the load down slow and controlled.
- Always push a load on a cart or dolly, do not pull it.
- If it's a long load or awkward, get additional help.
- Split the load into several smaller ones when you can.

8.22 Hazard Communication/Safety Data Sheets

Employees shall be familiar with the hazards of all chemical materials in the workplace.

Hazardous chemical materials in the workplace may pose potential health hazards to Employees who are exposed. Employees have a right to know the properties and potential hazards of materials to which they may be exposed.

Chemical materials brought onto this Facility shall include a copy of the item's Safety Data Sheet (SDS) that is provided to the Site Supervisor for approval and filing. Copies of all SDSs shall be maintained and be available for review at all times.

Prior to procurement of hazardous substances, a risk assessment will be undertaken using ChemAlert or ChemSafe chemical management systems, which will enable determination appropriate storage, volumes, emergency response, handling procedures and PPE, and transportation.

8.22.1 Safety Data Sheets

Employees should reference the SDS for the safe handling, use, storage, production and disposal of chemical materials.

NO CHEMICAL MATERIALS SHALL BE USED OR STORED UNTIL SDSs ARE RECEIVED AND APPROVED BY SITE SUPERVISOR (HSE Department can assist in review and approval).

Containers of chemical materials shall be properly labelled to indicate their contents. Labelling on any containers not intended for single-day, individual use shall contain additional information indicating potential health and safety hazards (flammability, reactivity, etc.).

Chemical materials transferred from the original container into another container shall have a label immediately affixed to the new container by the person making the transfer. At a minimum labels will:

- contain the identity of the chemical(s);
- include hazard rating, code or tag; and
- Provide appropriate information so an Associate can match the chemical with the SDS on file with the Site Supervisor.

If the material in a container is unknown due to a missing label, the Associate should contact the Site Supervisor or HSE Manager.

Chemical materials when not in use shall be kept in designated chemical storage cabinets or areas.

8.22.2 Dielectric/Transformer or Lubricating Petroleum-based Oil

The following conditions should be adhered to in relation to transformer oil:

- Avoid inhalation of mist and vapour.
- There are no special requirements for respiratory protection under normal conditions and with adequate ventilation.
- Protective clothing must be impervious to oil.
- Avoid prolonged or frequent skin contact to oil. Do not wear oil contaminated clothing.
- Avoid eye or face contact. Use eye or face protection.
- Practice good personal hygiene.
- Refer to Section 8.33 for storage requirements for transformer oil.

8.22.3 Hazardous Material Identification System

First Solar shall implement the NSW Work Cover Control of Workplace Hazardous Substances Code of practice for the control of workplace hazardous substances, to comply with the WHS Regulations (2011) so as to minimise the health risks of disease and injury due to exposure to hazardous substances in the workplace.

8.23 Potable Water

Water in any container that is not designed or intended for human consumption shall be labelled as: **“Non-Potable Water - Do not Drink”**

Water that is bottled as potable (i.e. safe to drink) or taken from a public water source which is then stored in a container that was used for non-potable water or chemicals, the container shall be labelled as non-potable and not used for drinking.

No cleaning of a container that has at any time contained non-potable water or chemicals is allowed that will make the container suitable for potable water.

Transfer of potable water to a non-potable container shall be accomplished only with an air gap of at least 10 cm between the potable water container and the non-potable container.

8.24 Signs and Tags

Observe, read and obey all signs and tags. If it becomes apparent that a hazardous situation or area warrants the need for a sign or tag, notify the Site Supervisor immediately. Hazard warning (e.g., Safety) signs shall conform to the following color-coding systems:

- **SAFETY RED**—identifies **FIRE, DANGER, or STOP**. It is most commonly used in flammable liquid identification, emergency stop switches, and fire protection equipment. Danger indicates an immediately hazardous situation that could cause death or serious injury.
- **SAFETY ORANGE**—indicates **WARNING**. Orange identifies hazardous equipment or situations. Common uses include marking machine hazards that pose cut crush, or pinch injuries, and for marking the insides of movable guards that allow access to gears, chains, and the like. Warning indicates a potentially hazardous situation that could result in death or serious injury.
- **SAFETY YELLOW**—denotes **CAUTION**. Used with black lettering, yellow identifies hazards such as conditions that might result in tripping or falling or flammable material storage. Caution indicates a potentially hazardous situation that may result in moderate injury.

8.25 Housekeeping /Access /Guards/Barricades

8.25.1 Housekeeping

Good housekeeping is fundamental and essential for the prevention of accidents due to slips, trips or falls, and in response to fires or other dangers. Work areas, passageways, storerooms, and service rooms must be kept clean, dry, orderly and in a sanitary condition.

8.25.2 Access

DO NOT block or otherwise obstruct access to exit doors, fire extinguishers, fire lanes, fire hoses, fire hose connections, controls for automatic sprinkler risers or emergency lights.

8.25.3 Guards

Holes or openings through floors or decking at all elevations shall immediately be provided with covers or barricades. Material and equipment shall not be stored on a cover. Signs or labelling shall be attached indicating it is a temporary cover and not to remove it unless authorized. Covers shall be cleared, wired, or otherwise secured so it cannot slip off the exposed area, and shall extend adequately beyond the edge of the hole.

8.25.4 Barricades

Prior to beginning any work that may present potential hazards to individuals, work areas will be inspected to determine the extent of barricading. Barricades must ensure a continuous separation of work activity from people not involved in the work. If adequate barricading cannot be established, then work may not begin.

An associate who creates a hazard is responsible for having it barricaded.

The Site Supervisor shall be notified of the need to place barricades on roadways that may impede the passage of emergency vehicles.

A barricade must be placed guarding all access routes to a hazard where a person could:

- Inadvertently enter a hazardous areas,
- Be unaware of required safety equipment or permission for entry,
- Be uncertain of the safe distance of observation, or
- Be working on an activity and accidentally enter into the actual hazard.

8.25.5 Types of barricades

Warning Barricades—Warning barricades call attention to a hazard but offer no physical protections. Example: caution tape, plastic fencing, saw horse type barricade.

Protective Barricades—Protective barricades warn as well as provide physical protection and shall be able to withstand 100kg of force in any direction with minimal deflection. Examples: wooden post and rail, cable, wooden post and metal chain.

Barricades are required around excavation, holes, openings in floors, roofs, elevated platforms, overhead work, and wherever necessary to warn people of falling or tripping hazards.

Barricades shall be 1 metre high and maintained square and level.

Warning barricades may be placed 2 metres or more from the hazard.

Protective barricades may be placed closer but when used around a fall hazard they must have a mid-rail as well as the top rail.

Barricade signs shall be fully informative, legible and visibly displayed.

Barricades must have barricade tags posted around the perimeter that identify the nature of the hazard. The tag should have the name of the person who erected the barricade along with date and department.

Rigid wood, metal, or plastic barricades must be used whenever there is a removed floor or wall section, missing handrail, any openings in excess of 50 cm.

Guidelines for use of Barricades

Hazardous Condition	Barricade
General Construction	Use barricades to completely isolate the work area
Overhead Work	Use barricades for areas where debris may fall or drop
Excavation (e.g., trenches, open holes)	Use barricades to prevent personnel or vehicles from falling or accidentally driving into excavation. For all excavations open for longer than a standard work day temporary fencing may be required.

Tripping Hazards	Use barricades to block-off potential trip hazards (e.g., conduit stubs, piping stubs, holes in floor, uneven surfaces, etc.)
Potential Unsafe Condition	Use barricades when an unsafe condition exists (e.g., incident investigation scene, spill, etc.)
Ladders	Use barricades around the base of the ladders that are located where they can be displaced by workplace activities or traffic)
Energized Lines	Use non-conductive barricades around energized lines or equipment to prevent accidental contact

8.26 Ladders

8.26.1 Portable Ladders

Ladders are available for access and work platforms for short term and infrequent tasks. The user shall inspect the ladder before using it and labelled with load limits. Ladders found to be defective will be removed from service and tagged as deficient.

- Never exceed the rated capacity of the ladder. Instructions for use of ladders are usually affixed to the newer ladders and should be read and complied with for any work that uses the ladder.
- While ascending and descending a ladder your face will be toward the ladder, hold on with both hands.
- Use a hand-line to raise and lower materials.
- Do not use ladders alone when the supporting surfaces are not stable such as when supporting soils are wet, supporting surfaces are wet, or weather conditions are windy or subject to wind gusts. When possible or conditions warrant have another person hold on the ladder.
- Use non-conducting ladders only on the site. Wood or metal ladders are not permitted.
- While working on a ladder, do not extend your reach, your beltline should be within the side rails of the ladder and change the position of the ladder as often as necessary to stay within the reach of your work and keep feet on the rungs
- Under no circumstances should chairs, furniture or any other item with a different intended use be utilized as a ladder.
- If it is necessary to place a ladder in or behind a doorway, barricade the work area and post warning signs on both sides of the door.
- Every ladder shall be equipped with a tie-off rope and non-skid safety feet and should be adequately tied-off or footed by another Associate.
- If a ladder is used to access an elevated work area, the top of the ladders shall extend at least 1 metre above the supporting object.

- The extension section of the ladder shall overlap the base section by a minimum of three (3) rungs.

8.26.2 Step Ladders

- Step ladders should be set on a level surface with all four legs on the ground, with spreaders locked in place.
- A step ladder shall never be used as a straight ladder.
- Do not sit or stand on the top of a stepladder.
- On standard design step ladders over three feet high do not stand on the step below the top step.
- Tie off a step ladder when using it close to the edge of a platform.

8.27 Working at Heights

All reasonable means will be investigated and implemented prior to any working at heights is undertaken.

In the event that work must be undertaken at heights, the following principles and or precautions will be undertaken:

- Working at Heights can only be undertaken by trained and competent personnel
- A JHA and a complete and approved working at heights permit will be in place prior to any work commencing (Appendix S)
- All working at heights equipment including scaffolding, work platforms, lanyards, etc. will be required to be inspected by a trained and competent person

8.28 Confined Space

A confined space means an enclosed or partially enclosed space that:

- Is not designed or intended primarily to be occupied by a person; and
- Is, or is designed or intended to be, at normal atmospheric pressure while any person is in the space;
- Is or is likely to be a risk to health and safety from:
 - An atmosphere that does not have a safe oxygen level, or
 - contaminants, including airborne gases, vapours and dusts, that may cause injury from fire or explosion, or
 - Harmful concentrations of any airborne contaminants, or engulfment.

At this site, the locations in the Table below have been identified as a Confined Spaces that require a "Confined Space Entry Permit" for entry.

Location	Hazard	Work Performed in Space	Permit Required (Yes / No)
Vaults	<ul style="list-style-type: none"> Engulfment Shock Atmospheric 	<ul style="list-style-type: none"> Inspections Cable Repairs 	Yes
Water Storage Tank	<ul style="list-style-type: none"> Engulfment 	<ul style="list-style-type: none"> None 	Yes
Transformer Vaults	<ul style="list-style-type: none"> Engulfment Shock 	<ul style="list-style-type: none"> Inspections Cable Repairs 	Yes

- The entryway into all known Confined Spaces shall be labelled with marking stating: “Danger Confined Space.”
- Only personnel trained and qualified in Confined Space Entry are permitted to enter a “Confined Space”.
- Trained and qualified personnel may only enter a Confined Space after the completion and approval of a “Confined Space Permit.” Appendix O
- All work performed within a Confined Space at the Project Site must comply with [AS 2865 Safe Working in a Confined Space \(1995\)](#). It is important to note that the size of a space is not one of the factors used to define a confined space. Therefore, there is no specified minimum or maximum size.

8.29 Oil Spill Prevention and Response

The PCS transformers on the site contain more than 1000L of vegetable oil each. Other transformers associated with electrical off site transmission may contain larger quantities and may also use other vegetable oil or mineral oil.

To address the potential for oil spills from these transformers, the prevention of spills and the response; the site has prepared a Spill Prevention, Control, and Countermeasure Plan (SPCC) regardless of the threshold for applicability given in federal requirements specified by quantity or the potential path for release.

The SPCC plan describes the equipment, workforce, procedures, and steps to prevent the spillage of oil into the environment, and respond to spills.

The SPCC contains specific monthly and annual inspections that shall be performed under the direction of the Site Supervisor.

8.29.1 Spill Response Process

The following process will generally be followed by onsite personnel in the event of a spill of a Dangerous or Hazardous Goods:

1. Ensure the safety of self and others in the area
2. If safe to do so, shut down/isolate the spillage source

3. Report the incident to your Supervisor. Supervisor to report incident to Site Environmental Advisor
4. Contain the contaminant of spillage using, spill kits, earth or other available measures if safe to do so
5. Prevent the spill from entering drainage lines or permanent water sources (including the existing on site dam and the dust water suppression pond) using spill kits, diversion drains or other method appropriate to prevent the flow of a Dangerous or Hazardous Goods.

8.29.2 Spill Response Process (Combustibles)

For spills of Dangerous or Hazardous Goods that present a combustion risk:

1. Identify potential ignition sources in the surrounding area
2. Secure potential sources of ignition either by removal or isolation
3. Shut down non-essential plant in the immediate area
4. Stop hot work in the immediate area
5. Do not smoke or cause sparks adjacent to spills
6. Remain at the scene until made safe
7. Provide further help if required

If a witness to incident provide information to the Site Environmental Advisor for incident report

The affected area should not be hosed down. Clean-up of contaminant to be undertaken as a priority once it has been contained and it is safe to do so. Clean-up of contaminated areas will be undertaken under the supervision of an appropriately experienced person (e.g. the Site Environmental Advisor). Both “mobile” and “wheelie bin” style spill kits will be available on site. All onsite spill kits will be “general purpose” kits, except where the need for specialist kits is identified. General spill kits are suitable for use for the following:

- General workshop liquids
- Oils, fuels and solvents
- Agricultural chemicals

Based on the Dangerous and Hazardous Goods anticipated to be on site, it is not expected that specialist spill kits will be required. Should First Solar need to store a Dangerous or Hazardous Good that cannot be controlled with a “general purpose” spill kit, a specialist kit will be procured.

8.30 Refrigerant Gases

The components of refrigeration gas mixtures are regulated due to their respective global warming potential (GWP). The site shall have a copy of the Safety Data Sheet (SDS) for the refrigerant gases and any mixtures of these gases retained on the site and should be referred to for specific details on health effects, handling, firefighting measures, and regulatory information.

8.31 Switchgear Breaker Gas – Sulphur Hexafluoride

Sulphur Hexafluoride (SF₆) is a gas used in the Photovoltaic Combining Switchgear (PVCS). SF₆ is a colourless, odourless gas that is used in switchgear for its insulation and arc-extinguishing properties.

The site shall have a copy of the Safety Data Sheet (SDS) for the SF₆ gas which should be referred to for specific details on health effects, handling, firefighting measures, and regulatory information. SF₆ is represented by the manufacturer of the PVCS as non-flammable, non-toxic and inert. SF₆ according to the SDS is heavier than air with a specific gravity (Air=1) of 5.11.

SF₆ is a greenhouse gas with a maximum global warming maximum potential 23,900 times that of CO₂.

The following SF₆ best management practices shall be applied at the Site:

Do not store containers of SF₆ on site unless necessary to support switchgear operation. If any containers are stored on-site, additional rules may apply to recordkeeping, identification, receipt and storage of containers, weighing of containers and calibration of weighing devices.

Maintain a current and complete inventory of the equipment as changes occur. The current SF₆ gas inventory for the active PVCS switchgear is as follows:

- Equipment Manufacturer Serial Number:
- Equipment Type: This Free-Standing ABB SafeSwitch Switchgear is custom in nature and designed for this site and application,
- Seal Type: Sealed switchgear that is designed to be gas tight and sealed for life and is pre-charged by the manufacturer. Although it is possible for this to be refilled on-site, specialized equipment is required that is not available on the Site,
- Equipment manufacturers name: ABB,
- Year equipment was manufactured: 2012,
- Equipment voltage capacity: 22 KV In-service,
- Equipment nameplate capacity: 3 x 0.96kg @ 0.04MPa.
- record the dates in the operations log when SF₆ transferred into or out of the switchgear,
- record the amount of SF₆ transferred into or out of the switchgear,

- record any changes in equipment inventory such as installation of new switchgear and disposition of the old equipment,
- retain SF6 equipment purchase documentation (e.g. contracts, invoices, receipts),
- retain on the site all documentation and log entry information for a minimum of three years and available for inspection

8.32 Hazardous Wastes

8.32.1 General

Hazardous wastes are wastes with properties that make it potentially dangerous or harmful to human health or the environment. Hazardous wastes can be liquids, solids, or contained gases. Hazardous waste can also be discarded used materials, or discarded unused commercial products, such as cleaning fluids (solvents) or pesticides.

Any hazardous wastes generated will be identified, collected, stored, tracked and disposed of according to the NSW Waste Classification Guidelines (DECCW 2009). At site, the types of hazardous wastes that may possibly be generated are broken PV arrays that contain cadmium telluride (CdTe). Other introduced materials may include transformer oil, domestic cleaning compounds such as sprays and pesticides/herbicide residues.

8.32.2 Broken PV Modules

First Solar classifies modules as either warranty return or end-of-life return regardless if the module is defective, cracked, or broken. Under the NSW Waste Classification Guidelines, CdTe wastes are classified under Codes D150 and D250. These wastes are therefore required to be tracked when moved within or outside of NSW. First Solar will recycle these end-of-life materials through its own manufacturing facilities.

Even though First Solar warranty return and end-of-life return modules are classified as a hazardous waste within the various Australian states and territories based on the applicable waste characterisation requirements, the warranty return and end-of-life return modules would not be hazardous waste for export from Australia (based on information provided by the Federal Government to First Solar).

First Solar has established an arrangement with the Thiess Group to collect warranty return modules and end-of-life modules from customer locations and First Solar project Sites (including AGL Broken Hill Power Station) and to store these modules at a port in Australia and coordinate the shipment back to First Solar (offshore) for recycling. In addition, First Solar will take-back all warranty-eligible modules but First Solar only takes-back end-of-life modules that are covered by a Recycling Services Agreement with a customer or if the end-of-life modules were previously covered under the original pre-funded collection and recycling program.

With regard to the First Solar project sites in New South Wales, below is a summary of the handling and storage requirements for warranty return and end-of-life return modules (collectively, PV Module Waste).

8.32.3 Classification of the Broken PV Modules

PEO Regulations and Waste Classification Guidelines: The NSW EPA has developed Guidelines under the PEO Act to assist in the identification of particular categories of waste. The Guidelines set out a five step process for waste classification to be followed in sequence to correctly classify waste. A detailed analysis of the application of the Guidelines to the PV Module Waste was provided to First Solar in February 2011. Based on the previous test results, the PV Module Waste will be classified as hazardous waste in NSW.

PV Modules considered 'dangerous goods': The Australian Dangerous Goods (ADG) Code was implemented in NSW by the Dangerous Goods (Road and Rail Transport) Act 2008 (NSW) (DG Act) and the Dangerous Goods (Road and Rail Transport) Regulation 2009 (NSW) (DG Regulations). This legislation is used to determine whether goods are 'dangerous goods' in NSW. Substances that are subject to the ADG Code are assigned to one of nine classes, according to the most predominant of the hazards they present. Goods are 'dangerous goods' under the DG Regulations if the EPA determines that they are dangerous goods, or if they satisfy the dangerous goods classification criteria set out or referred to in Part 2 of the ADG Code. PV Module Waste would be classified as a Class 9 dangerous good under the ADG Code. PV Module Waste will therefore be classified as a dangerous good under the DG Regulations and must be transported accordingly.

Licensing under PEO Act: Licensing requirements for waste management activities in NSW depend on whether the activity is a 'scheduled activity'. The storage of more than 5 tonnes of hazardous waste on the premises at any time is the relevant threshold for inclusion as a 'scheduled activity'. Therefore, if more than 5 tonnes of PV Module Waste is stored at a facility, a licence will be required, however these volumes are not expected at the Broken Hill Solar Power Station.

Scheduled activities are defined in Schedule 1 of the PEO Act and require a licence. The type of licence required for a scheduled activity depends on whether that activity is 'premises-based' or 'not premises-based'. The storage of PV Module Waste will be a premises based activity, and the occupier of a storage facility must apply for the licence. Transport is the only relevant non-premises based activity under the PEO Act, and the transporter must apply for the licence. Conditions may be imposed upon the licence. Schedule 1 also lists threshold limits under each category, which identify the volume of the waste being stored, processed or received over a certain time frame. These factors also inform whether a licence is required. The storage of PV Module Waste triggers classification as 'waste storage' under Schedule 1 ('the receiving from off site and storing (including storage for transfer) of waste').

Waste Type	Class	Source	Management/Controls	End Use
Broken PV Modules (CdTe)	Environmentally Hazardous; Toxic Class 9 (Waste Code D150; D250)	Work front breakages	Collected from work front; Stored on site in segregated and marked stockpile/bins; Prepared for offsite shipment; Tracking requirement implemented;	Recycled at manufacturing site

A regulated waste register will be kept of any regulated wastes generated during the operations and maintenance stage of the Project (Appendix R).

8.33 Dangerous Goods

During the maintenance stage of the project, transformer oil (a combustible material) will be used on the site (refer to Section 5.22.2).

During work hours combustible materials that present an ignition risk are to be stored and used in accordance with the manufacturer/suppliers recommendations, including the availability of fire-fighting equipment. First Solar will ensure that combustible materials that present an ignition risk are also stored in accordance with AS1940 - The Storage and Handling of Flammable and Combustible Liquids.

Storage of Dangerous Goods will be tailored to suit both the type and volume to ensure compliance with AS1940. This includes:

- Bunding will be 110% of the volume or as dictated by AS1940.
- Storage and handling of Dangerous Goods to be undertaken at least 50m away from watercourses, drainage line or permanent water sources (i.e. the existing dam).
- As far as practicable Dangerous Goods will be stored in a dedicated Dangerous Goods store.
- All containers shall be clearly marked and approved for the specific use.
- A mobile spill kit shall be located near the fuel storage area to deal with any spill outside of the banded area.

The mobile spill kit to contain at least the following:

- Absorbent pads, socks and pillows
- PPE equipment (goggles, gloves)
- Disposal bags

Any spills of dangerous goods will be contained and treated in accordance with MSDS.

It is noted that petrol will not be kept onsite for use in site vehicles, plant and machinery.

8.34 Electrical Safety

8.34.1 Training and Qualifications

- Only persons who are qualified and authorized are permitted to perform work on or near exposed, energized electrical equipment or to open enclosures or panels that contain exposed energized electrical parts or equipment.
- All energized work must be performed with two qualified persons. Both persons shall be certified in First Aid, CPR and the use of an AED.
- Persons working on "live" lines or equipment shall have had appropriate training, be competent and familiar with the equipment and be aware of all the potential risks involved with the work.

8.34.2 Basic Electrical Safety Principles

- Emphasis must be put on avoiding working on energised electrical equipment, unless unavoidable (Section 154 & 157 of Work Health and Safety Regulation 2011). All electrical lines and equipment shall be considered “live” (energized) until proven “dead” (de-energized).
- The “live, dead, live” testing method shall be used to prove that a line or piece of equipment is de-energized.
- All electrical lines and equipment shall not be worked as “de-energized” until a Lockout/Tagout is in place.
- Workers must be insulated from the energized parts with insulated gloves and/or sleeves, or a barrier or guard shall be in place between energized parts and the worker.
- Conductive items such as of jewellery or clothing shall not be worn during energized electrical work.

8.34.3 Working on or Around Electrical Equipment

All persons who work near live electrical apparatus shall understand the hazards and the limits of their movements.

A Safety Observer shall be appointed when persons are working on or near energized electrical lines.

All Energized work shall have an “Energized Electrical Work Permit” completed prior to the start of work. This is in addition to the Job Hazard Analysis and Pre-Job Briefing that must be completed for all jobs. Only the Site O&M Technician or Supervision can authorise and sign off an “Energized Electrical Work Permit” for the site.

All insulated hand tools used in close proximity to live electrical equipment must be insulated to the highest voltage likely to be encountered.

Visually inspect all insulated tools prior to use.

Verify that test metering or sensing devices are operating properly and that appropriate settings are used.

Safe approach distances are areas around energized electrical lines and equipment into which no part of a person, equipment or object (other than insulated) may encroach.

No person shall come or bring any conducting object within the distance given below from any exposed live part at the following specified voltages:

Minimum Approach Distances for Personnel and Hand Held Tools		
Energized Line Voltage	Qualified Personnel	Unqualified Personnel
Up to 1000v	500mm	1000mm
Above 1000v but not exceeding 11,000v	700mm	1200mm
Above 11,000v but not exceeding 66,000v	1000mm	1500mm

- Safe approach distances to energized electrical lines and equipment shall be adhered to at all times.

8.34.4 Switching

- Switching shall only be performed by qualified persons in First Solar. Check backs will be conducted by a certified switching ticket holder, and a review of the switching program of works will be conducted. Amendments will be made as necessary prior to undertaking switching works.
- Do not perform any switching operation without authorization of the Operating Authority.
- Perform all switching steps in the order of sequence as given by the Operating Authority.
- Switching at the direction of the Operating Authority will be done using “Three Legged Communication” (repeat back communication)
- Appropriate level rubber gloves and protectors shall be worn while performing switching of any kind in the Switchyard.
- Pay particular attention to ground switches and other grounding devices that they are open or removed before energizing equipment.
- Visually check switch blades after operation to ensure blades are proper separation (when opening) or have proper contact (when closing)

8.34.5 Grounding

- Only qualified persons shall install grounding devices.
- Inspect all grounds prior to installation to ensure good condition.
- If conditions expose that section of the de-energized line to be worked on to more than one possible source, a minimum of two grounds shall be installed, one on each side of the location where the work is being performed.
- In all cases, where applying grounding devices, these devices shall be securely attached to the source of ground before connections are made to the conductors and, in removing the devices, they shall be detached from the conductor first.
- Grounding cables should be no longer than necessary to keep the resistance as low as possible and to minimize slack in cables to prevent violent movement under fault conditions.
- Grounds shall be placed where necessary to protect from induction hazards.

8.34.6 Protective Equipment

- Electrical protective equipment shall be tested as follows:

Item	Test
Rubber Gloves	<ul style="list-style-type: none"> • Visual and air test prior to each use • Electrical test every 6 months
Rubber Blankets	<ul style="list-style-type: none"> • Visual inspection prior to each use • Electrical test every 12 months
Rubber Matting	<ul style="list-style-type: none"> • Visual inspection prior to each use • Electrical test every 12 months
Hotsticks	<ul style="list-style-type: none"> • Visual inspection prior to each use • Electrical test every 2 years

8.34.7 Photovoltaic Array Safety



CAUTION: Solar modules are energized as soon as they are exposed to sunlight and have the potential to cause an electrical shock or arc.

- Never disconnect a module under load, the module shall be taken off line and locked out until the sub-array or module is isolated from the system
- Damaged or cracked modules still have a high potential of electric shock. Special consideration should be taken in removing and handling a damaged solar photovoltaic module. Refer to Module Replacement procedure FS.OM.CM.01 and Direct Current Troubleshooting and Repair procedure FS.OM.CM.02 for specific instructions related to Photovoltaic Array Safety.
- The solar module assemblies used at this Facility each can generate in excess of 90VDC, when connected in series have a potential of producing an open circuit voltage in excess of 500VDC.
- Employees shall exercise additional caution when handling exposed (cracked, split or chewed) module cables and wiring harnesses.
- Work on exposed energized lines or equipment may be performed only by qualified individuals in accordance with approved procedures. Refer to procedures:
 - FS.OM.CM.01, Module Replacement
 - FS.OM.CM.02, Direct Current Troubleshooting and Repair
 - FS.227131, Cartridge Module Replacement
 - FS.600020, Lockout Tagout
- Always treat electrical equipment as energized until approved testing methods prove that it is de-energized. The “LIVE, DEAD, LIVE” testing method shall be used to prove that a line or piece of equipment is de-energized.

- Working on electrical equipment in wet conditions shall be minimized to the extent necessary and when necessary appropriate precautions (e.g. dry insulation mats) shall be implemented.
- Electrical tools should not be used in wet conditions. As an alternative, use battery operated or pneumatic driven equipment.

8.34.8 Hazardous Energy Control LOTO



CAUTION: Never tamper or change the position of a Locked Out or Tagged Out device without proper authority. Never remove a component or piece of equipment that has a Lockout Tagout Device attached.

- Employees working on electrical equipment shall be trained in accordance with the FS Lock Out and Tag Out procedure (Refer to FS.600020, Lockout Tagout)
- Lock Out and Tag Out are two different methods used to protect Employees from potential dangers in the workplace. This is accomplished by establishing a safe work boundary. This isolated boundary allows the performance of work safely while controlling hazards that can be in the form of electricity, compressed or pressurized gases or harmful liquids.
- The Lock Out method utilizes a physical and mechanical means, an assigned numbered lock that physically controls the isolation device position and a key held by the individuals performing the work activity.
- The Tag Out method utilizes color-coded tags that give instructions. This is considered an administrative means to control hazards that requires procedures and must offer the same level of protection as the Lock Out method. Some plant equipment does not have a physical means to be locked out in a safe position. This is when the Tag Out method is utilized. In some cases, because of the complexity of the systems and to maintain control, the First Solar or the AGL shall use the Tag Out method.
- Systems, equipment and electric circuits shall be de-energized and rendered safe whether utilizing Lock Out or Tag Out, prior to commencement of work activity.

8.34.9 Extension Cords

- Extension cords are for **TEMPORARY** use only. Inspect cords prior to use, if visible damage is present, remove it from service. Place cords so they are not damaged by doors, sharp corners, pinch points, etc.
- Extension cords should be routed overhead, under grating or along the edges of wall and secured so they cannot move. When it is necessary to route a cord across a traffic area it shall be, enclosed in a cord protector or taped to the floor the full length of the section crossing the traffic area.
- Never overload an extension cord.
- Never 'ganging' or stringing multiple cords together to make a longer cord.
- Do not alter plugs or receptacles.
- Do not remove ground poles.

- Should not be used in wet conditions.

8.35 Operation of Vehicles and Equipment

8.35.1 Mobile Equipment

The Site Supervisor shall ensure the safe operation of mobile/heavy equipment, such as graders, water trucks, loaders and other smaller equipment, such as excavators, forklifts, mobile cranes, backhoes and other large trucks.

Mobile/heavy equipment should have the following safety specifications:

- Seat belts for all occupants.
- Adequate lighting (e.g. headlights, tail, turn, brake, operating strobe or flashing light).
- Adequate walkways, railing, steps/grab handle combinations and boarding facilities including an alternative path of disembarking in case of emergency.
- Reversing alarms and the use of spotters.
- Horn.
- Effective windscreen wipers.
- Effective guarding on accessible moving parts.
- Signage on the equipment that allows clear and easy identification from a distance.
- Approved or certified roll-over protection.
- Two-way radio or other forms of communication.

The Site Supervisor shall ensure the implementation of:

- Daily pre-start inspections by the equipment operator. Log books shall be maintained and audited, and shall be located on the machine.
- A dust control and water management plan for access roads and other maintenance areas which generate excessive or hazardous dust that is liable to cross the site boundary.
- A maintenance and inspection program of First Solar Vehicles.
- Truck loading/unloading procedures - to avoid material or objects falling from the vehicle.

All equipment operators shall be appropriately licensed and deemed competent prior to operating any equipment at the site. Licenses and certificates of competencies shall be located with the operator at all times, in the event the Site Supervisor wishes to inspect the previously mentioned documentation.

Mobile phones, whether hands free or not, shall only be used by an operator of equipment while it is stationary and in a safe location.

8.35.2 Mobile Phone Use

General

Wireless communication devices shall not be used while driving a motor vehicle. This includes not only mobile phones, text pagers, two-way radios and other wireless devices.

The ban on the use of wireless communication devices above applies:

- To all vehicles operated by workers while on duty, whether owned by the company or the individual worker;
- To all wireless devices, whether owned by the company or by the worker; and
- To all conversations, whether personal or business-related.

Violations of the foregoing rules will be considered a serious offence and may result in the imposition of discipline up to and including termination.

Hands-Free Devices.¹

Option 1: The ban on using mobile phones and other devices while driving applies to all devices, including the use of cell phones with hands-free headsets.

Option 2: As an exception to this policy, workers may use mobile phones and other wireless devices to conduct conversations when they drive as long as they use headsets and other hands-free devices. However, workers are strongly encouraged to keep calls as brief as possible and to pull off the roadways when conversations become technical or emotional in nature.

8.35.3 Forklifts

Only licenced personnel who have been authorized may operate forklifts and industrial trucks. Any operator of this equipment shall:

- inspect equipment prior to use to ensure it is in safe operating condition,
- fasten seatbelt when available,
- raise the load only as high as necessary to safely clear the road surface when in motion,
- not allow other employees to ride on the equipment,
- not lift loads that exceed the equipment's rated load capacity,
- not suspend or swing loads over other persons or allow other persons to stand, walk, or work under elevated forks or loads,
- assure that no person or objects are in the path of the vehicle before moving the equipment,
- use an observer when in motion and visibility is obstructed,

¹ This section includes an option that would allow the use of headsets or hands-free devices. Although some mobile phone laws might allow for this, the scientific literature provides evidence that use of a hands-free device does not result in any significant improvement in driving performance. A total ban on all cell phones is the superior safety policy. While Option 2 is legally viable, legal obligations are minimum requirements, not ultimate standards.

- check for overhead clearances in direction of motion,
- ensure that that the load is securely fastened or safely positioned to prevent tipping or falling,
- transport loads as low as possible, but high enough for the forks to clear uneven surfaces,
- avoid sudden stops which might spill a load,

8.35.4 Lifting Operations and Equipment

Whenever lifting takes place a lifting plan will be developed and used by the Crane Crew. It is the responsibility of the Site Supervisor to check this plan, authorise and oversee the safe performance of hoisting or lifting of equipment. Copies of Lift Plans will be kept onsite.

If unsure about the safety of a hoisting or lifting operation, the Site Supervisor shall STOP the operation until the issue has been clarified, and the operation can be performed safely. All lifting operations at the Project Site shall be undertaken in alignment with:

- AS 2550 – Cranes, Hoists and Winches: Safe Use Set; and
- AS 1418 – Cranes, Hoists and Winches Series.

Lifting operations is defined as “any operation using a crane and lifting equipment that involves the raising and lowering of a load, including the suspension of a load.

Lifting equipment is defined as “any device which is used or designed to be used directly or indirectly to connect a load to a crane and which does not form part of a load, e.g. wire rope slings, chain slings, manmade fibre slings, hooks and fittings, swivels, shackles, eye bolts, rigging screws, wedge sockets, plate claps and lifting beams.

General HSE requirements for lifting operations and equipment include but not limited to:

- The Safe Work Load (SWL) of Working Load Limit (WLL) shall be clearly identifiable and marked on all cranes and relevant lifting equipment and shall not be exceeded.
- All cranes and equipment shall comply with the requirements of the relevant approved design standard.
- Items of lifting equipment that are subject to wear and frequent replacement (e.g. slings, shackles, pad-eyes etc.) shall be colour coded to ensure compliance with certification and inspection requirements
- Manufacturer’s crane and lifting equipment operating manuals and load charts should be made available to the crane and lifting operator.
- Controls should be put in place to prevent objects from lifting equipment and loads falling from above.
- The elimination of the need to work under suspended loads shall be pursued. Where working under suspended load is unavoidable, controls shall be in place to eliminate or minimize the risk to personnel.
- All cranes and lifting equipment shall be inspected prior to use by a competent person.
- Suitably qualified, certified, licensed and competent person/s shall be involved in the planning, supervision and implementation of lifting operations.

- Crane operators and crews should be able to communicate in a common language and are to use the correct crane signals.

8.35.5 Human Performance

Introduction

The purpose of Human Performance Improvement is to reduce the frequency and consequence of human errors that can result in accident or injury.

Error-free Performance is dependent upon:

- How well management, supervision, and frontline personnel function as a team.
- The degree of alignment of values, processes, and behaviour in achieving the Organization's Operational and Safety missions.

Principles of Human Performance

- People are fallible, even the best people make mistakes.
- Error-likely situations are predictable, manageable, and preventable.
- Individual behaviour is influenced by Organizational processes and values.
- People achieve high levels of performance largely because of the encouragement and reinforcement received from leaders, peers, and subordinates.
- Events can be avoided through an understanding of the reasons mistakes occur and application of the lessons learned from past events (or errors).

Human Performance Tools

Self-Checking – S.T.A.R

Why?

- Focuses attention and thinking just before a critical action is performed.
- Helps identify error-likely conditions before an error occurs.
- Provides a review of the results of the action to decide if the intended result was obtained.

When?

- Before and during the performance of any action where an error in performance could cause an injury or unwanted event.

How?

- **STOP** —Ensure you are prepared for the task or job assignment. Proper tools, PPE, have read the procedures, qualified/trained to perform, etc.
- **THINK** —Review (Procedures, Guidelines, OE's, Lessons Learned, etc.) What will be the results of your actions?

- **ACT** —Perform Task.
- **REVIEW** —Review results, document successes and lessons learned.

Peer Checking

Why?

- To provide a “second set of eyes” for the detection of the error of others. This can prevent the incorrect execution of irreversible actions.

When?

- During critical job steps – A step that has a direct effect on safety or quality.
- Prior to irreversible actions – Actions that when performed incorrectly have an immediate impact to safety or quality.
- Prior to performing actions in “error-likely situations.”

How?

- Review with another knowledgeable individual the task or action to be performed PRIOR to taking action.
- Verbally state your intended action to the peer-checker.
- The peer-checker verified that the action is correct and verbally communicates agreement with the intended action.
- Action is completed with peer-checker as observer.

Three-way Communication

Why?

- Promotes a mutual understanding between two or more people.
- Provides a means of effective, accurate, concise, and error-free transfer of information to achieve a common understanding.

When?

- During switching and clearing evolutions between the Operating Centre and field personnel.
- During verbal communication involving the safety of personnel, equipment, or the public.
- Communicating an important condition or parameter.
- Operating or testing critical equipment.
- Directing the activities of other workers.

How?

- Send the message: The sender provides clear and concise directions/information.
- Acknowledgement: The receiver repeats back the message to the sender. If the message is direction, it is repeated back verbatim; if information, the message may be paraphrased.
- Confirmation of Acknowledgement: The sender confirms that the receiver understands the correct message by affirming the acknowledgement (typically by responding, "That's correct.")

Questioning Attitude

Why?

- Challenges assumptions.
- Stimulates a healthy scepticism
- Reduced the potential for complacency

When?

- Before making a decision about an important activity.
- Experiencing uncertainty, confusion, or doubt.
- Encountering unanticipated conditions or results.
- Hearing danger words: "I assume", "I think", "should be", "probably is"

How?

- Remain vigilant of things that seem different, unusual, or "not right".
- Offer challenging questions
- Be open to being questioned by others

STOP When Unsure

Why?

- Allows for a brief stoppage of work to address and resolve issues or concerns.

When?

- Uncertainty, doubt, confusion, or question.
- Unfamiliar or unexpected situation or condition occurs.

How?

- Stop the activity
- Seek assistance or help in resolving question or condition

8.35.6 Walking, Working Surfaces

Slips, trips and falls account for approximately 20% of all lost time injuries every year. Risk factors that contribute to slip, trip and fall injuries will vary according to the work environment and work tasks being completed.

Common risk factor categories include:

- Floor surface and condition
- Uneven terrain and dense vegetation
- Floor contamination
- Objects on the floor
- Ability to see floor/ walkways/ barricades/hazards
- Cleaning/ spill containment
- Space and design
- Stairs and stepladders
- Work activities, pace and processes
- Footwear and clothing
- Individual factors

Slip, trip and fall hazards may be identified by reviewing hazard or incident reports, talking with Project personnel, completing a regular walk-through and inspections of work environments.

The First Solar Site Supervisor shall ensure the implementation of a risk based approach to the management of slips, trips and falls at the Project Site. This should include regular inspections of work areas to identify areas or items of risk.

9 References

Number	Title
AS/NZS 4801	Occupational Health and Safety Management Systems
	Work Health and Safety Regulations 2011
	AS/NZS 3000 Electrical Regulations
	National Fire Protection Association (NFPA) 70E 2005, Standards for Electrical Safety in the Workplace
NFPA 51B	Fire Prevention During Welding, Cutting, and Other Hot Work (2003 edition)
NFPA 241	Safeguarding Construction, Alteration, and Demolition Operations (2004 edition)
AS 2550 Series	Australian Standard for cranes, winches, hoists
AS/NZS 2210	Occupational protective footwear
AS/NZS 1336: 1997	Recommended practices for occupational eye protection
AS/NZ 1800:1998	Australian Standard for safety hard hats
AS/NZS 1800:1998	Occupational protective helmets – Selection, care and use
AS 2675B	Australian Standard for Workplace First Aid Kits
AS 1319: 1994	Safety signs for the occupational environment
AS/NZS 1337	Australian Standard for Eye Protection
AS/NZS 1800:1998	Occupational protective helmets – Selection, care and use
AS/NZS 2161.1:2000	Occupational protective gloves – Part 1: Selection, use and maintenance
AS/NZS 2210.1:2010	Occupational protective footwear – Part 1: Guide to selection, care and use.
AS 2225	Insulating gloves for electrical purposes
AS 2865: 1995	Safe working in a confined space
AS/NZS 4602:1999	High visibility safety garments
AS/NZS 1336:1997	Recommended practices for occupational eye protection
ISO 14001	Environmental Management Systems

Abbreviations

Abbreviation	Written in Full
ALARP	As Low As Reasonably Practicable
AS/NZS	Australian/New Zealand Standard
AS	Australian Standard
BAC	Blood Alcohol Content
BBS	Behaviour Based Safety
COP	Code of Practice
D&A	Drugs and Alcohol
DG	Dangerous Goods
DTMR	Daily Toolbox Meeting Record
EAP	Employee Assistance Program
HSE	Health, Safety & Environment
EMS	Environmental Management System
CEMP	Construction Environmental Management Plan
EMP	Environmental Management Plan
ERP	Emergency Response Plan
FAT	Fatality
FFW	Fitness for Work
HSE	Health and Safety
HSEMP	Health and Safety Management Plan
HOC	Hierarchy of Controls
IM	Injury Management
JSA	Job Safety Analysis
KPI	Key Performance Indicators
LTI	Lost Time Injury
LV	Light Vehicle
MMH	Material Manual Handling
MTI	Medical Treatment Injury
SDS	Safety Data Sheets
NATA	National Association of Testing Authorities
NSWFB	NSW Fire Brigade
O&M	Operations and Maintenance
OHS	Occupational Health and Safety
Owner	AGL
PPE	Personal Protective Equipment
PDCA	Plan-Do-Check-Act
RA	Risk Assessment
RCA	Root Cause Analysis
RCD	Residual Current Device
RWI	Restricted Work Injury
SOW	Scope of Work
SSE	Short Service Employee

Abbreviation	Written in Full
SWL	Safe Working Load
SWP	Safe Work Procedures
TMP	Traffic Management Plan
WA	Western Australia
WLL	Working Load Limit

10 Appendices

Appendix A - HSE Policy

Appendix B - Reference - Table 3.1 Broken Hill Solar Plant Staging report

Appendix C - Responsibilities for Approval Conditions and OEMP Management Actions

Appendix D - Job Hazard Analysis

Appendix E - Pre Job Briefing and Work Authorization

Appendix F - Incident Notification and Investigation Report Forms

Appendix G - EHS Manual Receipt and Acknowledgment Form

Appendix H - Solar Power Plant Monthly Safety Inspection Checklist

Appendix I - Contractor and Visitor Orientation

Appendix J - Operations and Maintenance Safety Observation Form

Appendix K - Daily Safety Plan

Appendix L - Risk Register and Procedure

Appendix M - Energy Isolation Permit

Appendix N - Excavation Permit

Appendix O - Confined Space Permit

Appendix P - Hot Works Permit

Appendix Q - Weekly Environmental Inspection Form D-01

Appendix R - Organizational Chart

Appendix S - Working at Height

Appendix T - General Hazard Identification and Risk Assessment

Appendix U - A Regulated Waste Register

Appendix V - Groundcover Monitoring Record H0-1

Appendix W – Weed Management Activities and Controls Form I-01

Appendix X – Safety Corrective Actions Register (SCAR)

Appendix - A HSE Policy



SMP: 01 First Solar Health (Australia), Safety & Environmental Policy

First Solar is committed to creating a culture where HEALTH, SAFETY AND THE ENVIRONMENT is an integral part of all our employees and subcontractors daily lives, creating a better future for the world by being the HSE industry leader.

We will always conduct our business in a manner that protects the HEALTH AND SAFETY of every person on our sites and protects the ENVIRONMENT around us. We expect all personnel to undertake their work in a manner that does not place either themselves or their colleagues at risk.

We maintain a goal of zero workplace injuries, which is consistent with our vision and values that all workplace injuries are preventable.

To achieve this outcome we will:

- Conduct business in a manner that actively integrates the elements of the First Solar HEALTH, SAFETY AND ENVIRONMENTAL Management Systems into all aspects of our operations;
- Promote First Solar sustainability through ENVIRONMENTAL operational excellence, waste minimization, resource conservation and a world-class recycling program;
- Comply with all applicable laws, regulations and statutory obligations;
- Proactively identify and control HEALTH, SAFETY AND ENVIRONMENTAL hazards and risks in the workplace;
- Support employees, contractors and subcontractors in their decision to stop work and intervene when unsafe acts or conditions are identified;
- Enable First Solar to continuously improve the HEALTH, SAFETY AND ENVIRONMENTAL management systems and our HSE performance through open communication and consultation with employees, clients, subcontractors and visitors;
- Provide the necessary tools, resources and training to facilitate continuous improvement, ensure the objectives and targets derived from this policy are achieved thereby ensuring HSE excellence throughout First Solar operations;
- Maintain proactive leadership in the management of HEALTH, SAFETY AND THE ENVIRONMENT.

A handwritten signature in blue ink, appearing to read "Jack Curtin", written over a horizontal line.

Enforced By: Jack Curtin, Vice President APAC

A handwritten date in blue ink, "08-07-2013", written over a horizontal line.

Date

Appendix B - Table 3.1 Broken Hill Solar Plant Staging Report

Minister Conditions of Approval

The Minister's Conditions of Approval for the Broken Hill Solar Power Plant consists of the Conditions of Approval, provided by the NSW Minister for Planning and Infrastructure (27 March 2013), and revised Statements of Commitment, provided within the Broken Hill Solar Plant Submissions and Preferred Project Report (February 2013).

As the project will be separated into four distinct stages, Table 3-1 makes clear the roles the parties (identified in Section 2) will have in addressing each Condition of Approval.

It is noted that whilst there is a clear division of labour and responsibilities with regard to the construction and operation of the solar plant, AGL will remain ultimately responsible for the satisfaction of the conditions of approval. Specifically:

- The project will have one Environmental Representative (ER) to satisfy MCoA C1. Among other duties, the ER will review and monitor the implementation of all sub-plans prepared by contractors, to ensure cohesiveness in approach where required and ultimately that the plans comply with the MCoA.
- The project will have several overarching plans/systems:
 - complaints management system
 - community information (consultation) plan
 - road dilapidation report
 - visual impact verification report
 - rehabilitation and revegetation guidelines
 - offset package, which takes into account the vegetation impacts off all stages
 - decommissioning management plan.

This will ensure a streamlined approach to these broader issues.

Where several sub-plans will be prepared, one for each stage, AGL will maintain responsibility for ensuring the plans take into account any relevant interdependencies (for example the cumulative effects of construction activities).

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	b) Broken Hill Solar Plant Environmental Assessment prepared by Sinclair Knight Merz dated October 2012; c) Broken Hill Solar Plant Submissions and Preferred Project Report prepared by Sinclair Knight Merz dated February 2013; and d) <u>conditions</u> of this approval.						
A3.	If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this approval prevail to the extent of any inconsistency.	Maintains ultimate responsibility for condition being met.	Applicable	Applicable	Applicable	Applicable	Applicable
A4.	The Proponent shall comply with any reasonable requirement(s)	Maintains ultimate responsibility for condition being met.	Applicable	Applicable	Applicable	Applicable	Applicable

Table 3-1 Project approval requirements for each stage and nominated party.

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
Condition of Approval							
	PART A - ADMINISTRATIVE CONDITIONS						
	Obligation to Minimise Harm to the Environment						
A1.	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Project.	Maintains ultimate responsibility for condition being met.	Applicable	Applicable	Applicable	Applicable	Applicable
	Terms of approval						
A2.	The Proponent shall carry out the project generally in accordance with the: a) Major Projects Application 10_0202;	Maintains ultimate responsibility for condition being met.	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	of the Director-General arising from the Department's assessment of: a) any reports, plans or correspondence that are submitted in accordance with this approval; and b) the implementation of any actions or measures contained within these documents.						
	Limits of Approval						
A5.	This project approval shall lapse five years after the date on which it is granted, unless any works the subject of this approval have physically commenced before that time.	Maintains ultimate responsibility for condition being met.					
	Staging						
A6.	The Proponent may elect to construct and/ or	This condition is met by the development of this					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	operate the Project in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the Director-General and Crown Lands Division of the Department of Trade and Investment prior to the commencement of the first proposed stage. The Staging Report shall provide details of: e) how the Project would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and f) details of the relevant conditions of project approval, which would apply to each stage and how these shall be	Staging Plan, once submitted to the Director General					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>complied with across and between the stages of the Project.</p> <p>Where staging of the Project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).</p> <p>The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director-General Crown Lands Division of the Department of Trade and Investment prior to the commencement of each stage, identifying any changes to the proposed</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	staging or applicable conditions.						
	Structural Adequacy						
A7.	The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. For the purpose of section 75S(2)(b) of the Act, the relevant provisions, as defined in section 75S(1A) of the Act apply to this approval.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		
	Decommissioning						
A8.	Within one year of decommissioning, the site shall be returned, as far as practicable, to its condition prior to the commencement	Maintains ultimate responsibility for condition being met				Applicable	

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	of construction in consultation with the Crown Lands Division of the Department of Trade and Investment or any relevant landowners. All solar panels and associated above ground structures including but not necessarily limited to, the control and facilities building and electrical infrastructure, including underground infrastructure to a depth of 300 millimetres, shall be removed from the site unless otherwise agreed by the Director-General in consultation with Crown Lands Division of the Department of Trade and Investment, except where the, control room or overhead electricity lines						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	are transferred to or in the control of the local electricity network operator. All other elements associated with the project, including site roads, shall be removed unless otherwise agreed to by the Director-General.						
A9.	If the solar plant is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the Director-General and the Crown Lands Division of the Department of Trade and Investment. The Proponent shall keep independently-verified annual records of the use of the solar panels for electricity generation.	Maintains ultimate responsibility for condition being met				Applicable	

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Copies of these records shall be provided to the Director-General upon request. The solar panels and any associated infrastructure are to be dismantled and removed from the site by the Proponent within 18 months from the date that the solar panels were last used to generate electricity.						
A11	Prior to the commencement of construction, the Proponent shall provide written evidence to the satisfaction of the Director-General that the lease agreements with the Crown Lands Division of the Department of Trade and Investment have adequate provisions to require that	Maintains ultimate responsibility for condition being met.		Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	decommissioning occurs in accordance with this approval, and is the responsibility of the Proponent.						
	Compliance						
A12	The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable
A13	The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable
A14	In the event of a dispute between the Proponent	Noted	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the project, either party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.						
	PART B - ENVIRONMENTAL PERFORMANCE						
	GENERAL CONDITIONS						
	Ancillary Facilities						
B1.	B1. Unless otherwise approved by the Director-General, the location of Ancillary Facilities shall: a) be located more than 50 metres from a waterway;	Maintains ultimate responsibility for condition being met (Ancillary facilities are not considered construction under the	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	b) be located within or adjacent to the Site; c) have ready access to the road network; d) be located to minimise the need for heavy vehicles to travel through residential areas; e) be sited on relatively level land; f) be separated from nearest residences by at least 200 metres (or at least 300 metres for a temporary batching plant); g) not require vegetation clearing beyond that already required by the Project; h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already impacted by the Project; i) not unreasonably affect the land use of adjacent properties;	definition of construction in the MCoA , in locations meeting the criteria in this condition)					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>j) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</p> <p>k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.</p> <p>The location of the Ancillary Facilities shall be identified in the CEMP.</p>						
B2.	The site of all ancillary facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the Crown Lands Division of the Department of Trade and Investment.	Maintains ultimate responsibility for condition being met		Applicable	Applicable		
	Bushfire Risk						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
B3.	The Proponent shall ensure that all project components on site are designed, constructed and operated to minimise ignition risks, provide for asset protection consistent with relevant NSW Rural Fire Services (RFS) design guidelines (Planning for Bushfire Protection 2006 and Standards for Asset Protection, Undated) and provide for necessary emergency management including appropriate fire-fighting equipment and water supplies on site to respond to a bush fire.	Bushfire risk and consultation will be managed through the implementation of Bush Fire Management Plans (BFMPs). Maintains ultimate responsibility for condition being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage
B4.	Throughout the operational life of the project, the Proponent shall regularly consult with the local RFS	Maintains ultimate responsibility for condition being met				Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	to ensure its familiarity with the project, including the construction timetable and the final location of all infrastructures on the site. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.						
	Dangerous Goods						
B5.	Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with: a) all relevant Australian Standards; b) for liquids, a minimum bund volume requirement of 110% of	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	the volume of the largest single stored volume within the bund; and c) <i>the Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin</i> (Environment Protection Authority, 1997). In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.						
	Dust Generation						
B6.	The Proponent shall construct and operate the project in a manner that minimises dust generation	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>from the site, including wind-blown and traffic-generated dust as far as practicable.</p> <p>All project related activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should visible dust emissions attributable to the project occur during construction and operation, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works during construction, planting ground covers, using dust suppressants as appropriate, such that emissions of visible dust cease.</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Water Quality Impact						
B7.	<p>Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> which prohibits the pollution of waters.</p>	<p>Maintains ultimate responsibility for condition being met</p>	Applicable	Applicable	Applicable	Applicable	Applicable
B8.	<p>Works within 40m of a watercourse are to be carried out in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land (NOW, July 2012)</i>.</p>	<p>Guidelines for Controlled Activities on Waterfront Land will be included in the site specific erosion and sediment control plans.</p> <p>AGL maintains ultimate responsibility for condition being met</p>	Applicable	Applicable	Applicable		
	Construction Soil and Water Management						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
B9.	Soil and water management measures consistent with Managing Urban Stormwater - Soils and Construction Vol. 1 (Landcom, 2004) shall be employed during the construction of the Project to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		
	Waterways						
B10.	Waterway crossings shall be designed and constructed in consultation with NOW and DPI (Fisheries) and consistent with DPI (Fisheries) guidelines <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (2004) and <i>Fish Passage Requirements for</i>	Waterway crossings will be included in site specific erosion and sediment control plans. AGL maintains responsibility for condition being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<i>Waterway Crossings</i> (2004).						
	Waste Management						
B11.	All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable
B12.	Waste generated outside the site shall not be received at the site for storage, treatment, processing, reprocessing, or disposal on the site, except as expressly permitted by a licence under the <i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
B13.	All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance with <i>Waste Classification Guidelines</i> (Department of Environment, Climate Change and Water, 2009), or any superseding document.	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable	Applicable	Applicable
	Utilities and Services						
B14.	Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	the Project shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.						
	FLORA & FAUNA						
	Native Vegetation Impacts						
B15.	The clearing of all native vegetation is to be limited to the minimal extent practicably required. Details regarding the procedures for clearing vegetation and minimising the extent of clearing shall be clearly included in the Flora and Fauna Management Plan	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	contained in condition C3(a).						
B16.	Tree trunks and major branches from cleared trees should be used, to the fullest extent practicable, to enhance habitat (coarse woody debris) in rehabilitated areas (either in offset areas or areas adjoining impacted areas) and included in the Construction Flora and Fauna Management Plan contained in condition C3(a).	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		
	Fauna Impacts						
B17.	The Applicant shall design, construct and operate any overhead transmission line connection to the electricity grid with consideration to reasonable and feasible	Maintains ultimate responsibility for condition being met			Applicable		Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	mitigation measures that can be employed to minimise the risk of bird and bat strike into electricity wires.						
B18.	Prior to construction the Proponent shall prepare, in consultation with a suitably qualified expert, and implement a management plan for the raptor nesting site described in Figure 7-3 of the Environmental Assessment. This plan shall include, but not be limited to: a) an assessment of the foraging, breeding and habitat available to the raptor populations, including a map of the suitable breeding, roosting and foraging	Maintains ultimate responsibility for condition being met		Applicable	Applicable	Potentially applicable. Dependant on monitoring requirements of the Plan.	Potentially applicable. Dependant on monitoring requirements of the Plan.

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>habitat on the project site;</p> <p>b) identified protection measures for this habitat;</p> <p>c) a protocol for checking available breeding habitat prior to any construction works being undertaken, with suitable protection measures implemented if nests are identified;</p> <p>d) identified measures to minimise impact and disturbance to the raptors during construction and operation;</p> <p>e) a monitoring program to assess and respond to impacts on the local raptor populations by construction and</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>operations on the project site; and</p> <p>f) if monitoring results demonstrate the nest has been abandoned then further mitigation, such as a provision of an artificial structure to allow a new nest to be built in the offset area should be investigated.</p> <p>A copy of the Plan shall be provided to the Department and the OEH prior to the commencement of construction.</p>						
B19.	During construction, the Proponent shall maintain a buffer of 500 metres in all directions from the raptor nesting site described in Figure 7-3 of the Environmental Assessment	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	unless otherwise agreed to by the Director-General.						
	VISUAL AMENITY						
	Landscaping Requirements						
B20.	Within six months of the commissioning of the project, the Proponent shall prepare and submit a Visual Impact Verification Report for the Director-General's approval. Unless otherwise agreed to by the Director-General, the Visual Impact Verification Report shall confirm the visual impacts at each of the receptors and roadways identified in the Environmental Assessment as having the potential to be 'highly impacted', considering the final model and layout of generating	Maintains responsibility for preparing a single report to satisfy this condition					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	components on site as well as site specific mitigating factors at the receptors and roadways (such as receptor orientation and intervening screening factors). The Visual Impact Verification Report shall identify all reasonable and feasible screening and landscape planting options available at each receptor and roadways at which potential impacts have been verified to be 'high' including demonstration that these measures have been determined in consultation with affected receptors and relevant road authorities.						
B21.	Within 18 months of the approval of the Visual Impact Verification Report by the Director-General (or	Maintains ultimate responsibility for condition being met					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	as otherwise agreed to by the Director-General), the Proponent shall ensure that the measures identified in the Report are implemented at affected receptors and roadways as identified in the Report in consultation with the Crown Lands Division of the Department of Trade and Investment, other relevant residents/landowners and road authorities.						
B22.	The Proponent shall ensure that any permanent buildings and overhead transmission lines are designed and constructed to minimise visual intrusion to nearest sensitive receptors as far as reasonable and feasible, including appropriate	Maintains ultimate responsibility for condition being met		Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	external finishes and landscape planting to screen views.						
	Rehabilitation and Revegetation						
B23.	The Proponent shall implement a revegetation and rehabilitation program for all areas of the project footprint which are disturbed during the construction of the project but which are not required for the ongoing operation of the project including temporary construction facility sites and sections of construction access roads. The Proponent shall ensure that all revegetation measures are implemented progressively where possible and in all cases within six months of the	Maintains ultimate responsibility for condition being met	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage	Potentially applicable if plantings are requiring ongoing maintenance prior to being verified by an independent expert.	Potentially applicable if plantings are requiring ongoing maintenance prior to being verified by an independent expert.

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>the following standard construction hours:</p> <p>a) 7:00am to 6:00pm Mondays to Fridays, inclusive;</p> <p>b) 8:00am to 1:00pm Saturdays; and</p> <p>c) at no time on Sundays or public holidays.</p> <p>Except unless otherwise provided in condition B25.</p>						
B25.	<p>Construction works outside of the standard construction hours identified in condition B24 may be undertaken in the following circumstances:</p> <p>a) construction works that generate noise that is:</p> <p>i. no more than 5 dB(A) above rating background level at any residence in accordance with the <i>Interim</i></p>	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		
ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>cessation of construction activities at the relevant area. Unless otherwise agreed to by the Director-General, the Proponent shall monitor and maintain the health of all revegetated areas until such time that the plantings have been verified by an independent and suitably qualified expert (whose appointment has been agreed to by the Director-General) as being well established, in good health and self-sustaining.</p>						
	NOISE - CONSTRUCTION						
	Construction Noise						
B24.	Construction activities associated with the project shall be undertaken during	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>the following standard construction hours:</p> <p>a) 7:00am to 6:00pm Mondays to Fridays, inclusive;</p> <p>b) 8:00am to 1:00pm Saturdays; and</p> <p>c) at no time on Sundays or public holidays.</p> <p>Except unless otherwise provided in condition B25.</p>						
B25.	<p>Construction works outside of the standard construction hours identified in condition B24 may be undertaken in the following circumstances:</p> <p>a) construction works that generate noise that is:</p> <p>i. no more than 5 dB(A) above rating background level at any residence in accordance with the <i>Interim</i></p>	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p><i>Construction Noise Guideline</i> (Department of Environment and Climate Change, 2009); and</p> <p>ii. no more than the noise management levels specified in Table 3 of the <i>Interim Construction Noise Guideline</i> (Department of Environment and Climate Change, 2009) at other sensitive receivers; or</p> <p>b) for the delivery of materials required outside those hours by the NSW Police Force or other authorities for safety reasons; or</p> <p>c) where it is required in an emergency to avoid the loss of life, property</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	and/or to prevent environmental harm; d) works as approved through the out-of-hours work protocol outlined in the Construction Noise Management Plan required under condition C3(d).						
B26.	Any activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken: a) between the hours of 8:00 am to 5:00 pm Mondays to Fridays; b) between the hours of 8:00 am to 1:00 pm Saturdays; and c) in continuous blocks not exceeding three	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	hours each with a minimum respite from those activities and works of not less than one hour between each block. For the purposes of this condition, 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.						
B27.	The Proponent shall implement all reasonable and feasible measures to minimise noise generation from the construction of the Project consistent with the requirements of the <i>Interim Construction Noise Guideline</i> (DECC, July 2009) including noise	Maintains ultimate responsibility for condition being met	Environmental risk management documentation specific to the enabling works will be developed if required.	A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	generated by heavy vehicle haulage and other construction traffic associated with the project						
	NOISE - OPERATION						
	Operational Noise Criteria						
B28.	The Proponent shall take all reasonable measures to minimise noise emissions and vibration from all plant and equipment operated on the site such that they do not exceed noise and vibration criteria derived by application of the <i>NSW Industrial Noise Policy</i> (DECC, 2000) and <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006).	Maintains ultimate responsibility for condition being met				A sub-plan will be developed specific to this stage	A sub-plan will be developed specific to this stage
	Operational Noise Design Standards – Overhead Transmission Line						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
B29.	The Proponent shall ensure that any overhead transmission line associated with the project is designed, constructed and operated to minimise the generation of corona and aeolian noise as far as reasonable and feasible at nearest existing sensitive receptors.	Maintains ultimate responsibility for condition being met			A sub-plan will be developed specific to this stage		A sub-plan will be developed specific to this stage
	TRAFFIC AND TRANSPORT						
	Road Dilapidation						
B30.	Unless otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake the following in consultation with the relevant road authority:	Maintains ultimate responsibility for condition being met		Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	a) Prior to the commencement of construction of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all local public roads proposed to be traversed by construction traffic associated with the project (including over-mass or over-dimensional vehicles) in consultation with the relevant road authority, and to identify any upgrade requirements to accommodate project traffic for the duration of construction (including culvert, bridge and drainage						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	design; intersection treatments; vehicle turning requirements; and site access), having regard to traffic volumes. The Pre-Construction Road Report shall be submitted to the Director- General prior to the commencement of construction works, clearly identifying recommendations made by the relevant road authority and how these have been addressed. The Proponent shall ensure that all upgrade measures identified in the report are implemented to meet the reasonable requirements of the						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>relevant road authority, prior to the commencement of construction;</p> <p>b) <u>upon</u> determining the haulage route(s) for construction vehicles associated with the project, and prior to construction, an independent and qualified person or team shall undertake a Road Dilapidation Report. The report shall assess the current condition of relevant local road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the project. The Report</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>shall be submitted to the relevant road authority for review prior to the commencement of haulage;</p> <p>c) following completion of construction, a subsequent report shall be prepared to assess any damage that may have resulted from the construction of the project; and</p> <p>d) <u>measures</u> undertaken to restore or reinstate roads affected by the project shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
B31.	The intersection of the site access road and the Barrier Highway shall be upgraded prior to the commencement of construction to the satisfaction of and at no cost to the relevant road authority.	Maintains ultimate responsibility for condition being met	Applicable				
	HERITAGE						
	Heritage Impacts						
B32.	If during the course of construction the Proponent becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) shall cease immediately and the OEH informed in accordance with the <i>National Parks and Wildlife Act 1974</i> . In addition, registered Aboriginal stakeholders	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	shall be informed of the finds. Works shall not recommence until an appropriate strategy for managing the objects has been determined in consultation with the OEH and the registered Aboriginal stakeholders and written authorisation from the OEH is received by the Proponent.						
B33.	If during the course of construction the Proponent becomes aware of any unexpected historical relic(s), all work likely to affect the relic(s) shall cease immediately and the Heritage Office notified in accordance with the <i>Heritage Act 1977</i> . Works shall not recommence until the Proponent receives	Maintains ultimate responsibility for condition being met	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	written authorisation from the Heritage Office.						
	PART B - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING						
	ENVIRONMENTAL REPRESENTATIVE						
C1.	Prior to the commencement of construction of the Project, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environment Representative(s) that is independent of the design and construction personnel. The Proponent shall employ the	One ER will be appointed to the project to satisfy this condition as well as provide coordination between the stages, in terms of compliance.					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Environmental Representative(s) for the duration of construction, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall: <ul style="list-style-type: none"> a) be the principal point of advice in relation to the environmental performance of the Project; b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/ programs; c) have responsibility for considering and 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>advising the Proponent on matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the Project;</p> <p>d) ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s);</p> <p>e) be given the authority to approve/ reject minor amendments to the Construction Environmental Management Plan. What constitutes a "minor" amendment</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>shall be clearly explained in the Construction Environmental Management Plan required under Condition C2;</p> <p>f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur; and</p> <p>g) be consulted in responding to the</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	community concerning the environmental performance of the project where the resolution of points of conflict between the Applicant and the community is required.						
	ENVIRONMENTAL MANAGEMENT						
	Construction Environmental Management Plan (CEMP)						
C2.	The Proponent shall prepare and implement a Construction Environmental Management Plan in consultation with Council and the Crown Lands Division of the Department of Trade and Investment in accordance with the	Maintains ultimate responsibility for ensuring that the contents of individual contractor CEMPs are able to satisfy this condition	Refer to Section 2.1	A CEMP will be developed specific to this stage	A CEMP will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<i>Guideline for the Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004) or any replacement guideline. No construction associated with the project shall commence until written approval of this plan has been received from the Director-General or his nominee. The Plan must include: a) a description of all relevant activities to be undertaken on the site during construction including an indication of stages of construction, where relevant;						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>b) identification of the potential for cumulative impacts with other construction activities occurring in the vicinity and how such impacts would be managed;</p> <p>c) details of any construction sites and mitigation, monitoring, management and rehabilitation measures specific to the site compound(s) that would be implemented;</p> <p>d) statutory and other obligations that the Proponent is required to fulfil during construction including all relevant approvals, consultations and agreements required from authorities and other stakeholders.</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>and key legislation and policies;</p> <p>e) evidence of consultation with relevant public authorities required under this condition and how issues raised by the agencies have been addressed in the plan;</p> <p>f) a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, contractors and sub-contractors are aware of their environmental and</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>compliance obligations under these conditions of approval;</p> <p>g) details of how the environmental performance of construction will be monitored, and what actions will be taken to address identified potential adverse environmental impacts;</p> <p>h) specific consideration of relevant measures identified in the documents referred to under conditions A2b) and A2c) of this approval;</p> <p>i) the additional requirements of this approval;</p> <p>j) a complaints handling procedure during</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>construction identified in conditions C12 and C14;</p> <p>k) register of construction work hazards and the anticipated level of risk associated with each;</p> <p>l) measures to monitor and manage soil and water impacts in consultation with NOW including: control measures for works close to or involving waterway crossings (including rehabilitation measures following disturbance and monitoring measures and completion criteria to determine rehabilitation success), identification of construction activities that are likely to pose a</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>risk of groundwater interference, and procedures for managing groundwater impacts should they occur;</p> <p>m) measures to monitor and manage flood impacts in consultation with NOW;</p> <p>n) measures to monitor and manage dust emissions including dust generated by traffic on unsealed public roads and unsealed internal access tracks;</p> <p>o) emergency management measures including measures to control bushfires;</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	p) <u>information</u> on water sources.						
C3.	<p>As part of the Construction Environmental Management Plan required under condition C2 of this approval, the Proponent shall prepare and implement the following:</p> <p>a) a Flora and Fauna Management Plan, developed in consultation with the OEH, to outline measures to protect and minimise loss of native vegetation and native fauna habitat as a result of construction of the project. The Plan shall include, but not necessarily be limited to:</p> <p>i. <u>plans</u> showing terrestrial</p>	Maintains ultimate responsibility for ensuring that the contents of individual contractor sub-plans are able to satisfy this condition	Refer to Section 2.1	Sub-plans will be developed specific to this stage	Sub-plans will be developed specific to this stage		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	vegetation communities; important flora and fauna habitat areas; locations of EECs, native pasture; and areas to be cleared. The plans shall also identify vegetation adjoining the site where this contains important habitat areas and/or threatened species, populations or ecological communities; ii. methods to manage impacts on flora and fauna species and their habitat which may be directly or indirectly affected by the project, such as location of fencing, procedures for vegetation clearing or soil removal/stockpiling and procedures for re-locating hollows						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	or installing nesting boxes and managing weeds; iii. procedures to accurately determine the total area, type and condition of vegetation community to be cleared; iv. reference to the Ground Cover Management Plan and the Management Plan for the raptor nesting site required in condition C3(b) and B18 respectively; and v. a procedure to review management methods where they are found to be ineffective. b) Ground Cover Management Plan , developed in						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>consultation with the Crown Lands Division of the Department of Trade and Investment an agronomist, to outline measures to ensure adequate vegetation cover and composition beneath the solar PV array. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. procedures to minimise disturbance to ground cover not impacted by the project particularly in the area of the native <u>shrubland</u> in good condition; ii. procedures for the stabilisation, rehabilitation and revegetation of disturbed ground cover including 						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>reference to field trials where required,</p> <ul style="list-style-type: none"> iii. weed management measures to control and prevent the spread of noxious weeds; iv. monitoring methods to assess the impact of the project on the ground cover vegetation; and v. a procedure to review management methods where they are found to be ineffective. <p>c) a Landscape Plan, to minimise visual impacts from the solar plant. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. identification of landscaping objectives and 						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<ul style="list-style-type: none"> ii. standards based on visual impacts; details of species used to enhance, mitigate and/or augment landscaping to minimise the visual impact of the project, particularly with respect to the impacts on nearby residences; iii. implementation, management and monitoring strategies to ensure the establishment and ongoing maintenance of landscaped areas; and iv. a consultation strategy to seek feedback from affected residents and the interested community on the proposed landscape measures. 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>d) a Construction Noise Management Plan to manage noise impacts during construction and to identify all feasible and reasonable noise mitigation measures. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. details of construction activities and an indicative schedule for construction works; ii. identification of construction activities that have the potential to generate noise impacts on surrounding land uses, particularly residential areas; iii. detail the requirements for Noise Impact Statement(s) for 						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>approval, including a risk assessment process under which an Environmental Representative may approve out-of-hour construction activities deemed to be of low environmental risk and refer high risk works for the Director-General's approval. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, and detail a standard protocol for referring applications to the Director-General; and</p> <p>vii. a description of how the effectiveness of these actions and measures would be</p>						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>discrete work areas, including construction site compounds;</p> <p>iv. detail what reasonable and feasible actions and measures would be implemented to minimise noise impacts;</p> <p>v. procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity, as well as procedures for dealing with and responding to noise complaints;</p> <p>vi. an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition B25 of this</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported; and, if any exceedance is detected how any non-compliance would be rectified.</p> <p>e) a Traffic Management Plan to manage traffic conflicts that may be generated during construction. In preparing the Plan, the Proponent shall consult with the Council, RMS and the Crown Lands Division of the Department of Trade</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>and Investment. The Plan shall address the requirements of the relevant road authority and shall include, but not necessarily be limited to:</p> <ol style="list-style-type: none"> i. details of how construction of the project will be managed in proximity to local and regional roads; ii. details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads; iii. demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with; iv. details of measures to minimise interactions 						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>from the site and within the site.</p> <p>f) an Aboriginal Heritage Plan to monitor and manage Aboriginal heritage shall be developed in consultation with the OEH and registered Aboriginal stakeholders, and include the following:</p> <ul style="list-style-type: none"> i. details of further archaeological investigations and/or salvage measures to be carried out prior to construction; ii. procedures for the management of identified objects within the project site; iii. procedures for dealing with unidentified objects and/or human remains; 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>between the project and other users of the roads such as the use of fencing, lights, barriers, traffic diversions etc;</p> <ul style="list-style-type: none"> v. procedures for informing the public where any road access will be restricted as a result of the project; vi. procedures to manage construction traffic to ensure the safety of livestock and to minimise disruption to livestock; vii. speed limits to be observed along routes to and from the site and within the site; and viii. details of the expected behavioural requirements for vehicle drivers travelling to and 						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>from the site and within the site.</p> <p>f) an Aboriginal Heritage Plan to monitor and manage Aboriginal heritage shall be developed in consultation with the OEH and registered Aboriginal stakeholders, and include the following:</p> <p>i. details of further archaeological investigations and/or salvage measures to be carried out prior to construction;</p> <p>ii. procedures for the management of identified objects within the project site;</p> <p>iii. procedures for dealing with unidentified objects and/or human remains;</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>iv. Aboriginal cultural heritage induction processes for construction personnel; and</p> <p>v. procedures for ongoing Aboriginal consultation and involvement.</p> <p>Upon receipt of the Director-General's approval, the Proponent shall provide a copy of the Plan to the Crown Land Division of the Department of Trade and Investment as soon as practicable.</p>						
	Operational Environmental Management Plan						
C4.	The Proponent shall prepare and implement an Operation Environmental Management Plan in accordance with the <i>Guideline for the</i>	Maintains ultimate responsibility for ensuring that the contents of individual contractor OEMPs are				An OEMP will be developed specific to this stage	An OEMP will be developed specific to this stage

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p><i>Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004), or any replacement guideline. The Plan is to be prepared in consultation with the Crown Lands Division of the Department of Trade and Investment and Council as relevant. The Plan shall include but not necessarily be limited to:</p> <p>a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the project, including all consents, licences,</p>	able to satisfy this condition					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>approvals and consultations;</p> <p>b) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project;</p> <p>c) overall environmental policies to be applied to the operation of the project;</p> <p>d) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically monitored, reviewed and improved, (where appropriate) and what actions would be taken</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>in the case that non-compliance with the requirements of this approval are identified. In particular the following environmental performance issues shall be addressed:</p> <ul style="list-style-type: none"> i. bushfire hazard and risk management; ii. management and maintenance of offsets; iii. inspection, monitoring and maintenance of all watercourse crossings; iv. <u>management</u> measures for the site, including management of vegetation, soil erosion, dust weed control and landholder liaison. 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<ul style="list-style-type: none"> e) the environmental monitoring requirements outlined under this approval; f) measures to monitor and manage flood impacts in consultation with NOW; g) information on water sources; h) complaints handling procedures as identified in conditions C13 to C15; i) specific consideration of relevant measures to address any requirements identified in the documents referred to under conditions A2b) and A2c) of this approval; and 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>j) <u>management</u> policies to ensure that environmental performance goals are met and comply with the conditions of this approval.</p> <p>The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of Operation of the project or within such period as otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Proponent shall make the Plan publicly available as soon</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	as practicable and provide a copy of the Plan to the Crown Lands Division of the Department of Trade and Investment as soon as practicable.						
	Biodiversity Offset Management Package						
C5.	Following final design and prior to the commencement of construction, or as otherwise agreed to by the Director-General, the Proponent shall develop and submit a Biodiversity Offset Management Package for the approval of the Director-General. The package shall detail how the ecological values lost as a result of the Project will be offset. The Biodiversity Offset Management Package	Maintains responsibility for preparing a single package to satisfy this condition.					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>shall be developed in consultation with the OEH and shall (unless otherwise agreed by the Director-General) include, but not necessarily be limited to:</p> <p>a) an assessment of all native vegetation communities, threatened species habitat and <u>Wilyama</u> Common land that will either be directly or indirectly impacted by the proposal;</p> <p>b) the objectives and biodiversity outcomes to be achieved (including 'improve or maintain' biodiversity values), and the adequacy of the proposed offset considered;</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>c) the final suite of the biodiversity offset measures selected and secured including but not necessarily limited to;</p> <p>i. an offset proposal which is supported by a suitable metric method (such as the <u>Biobanking Assessment Methodology</u>);</p> <p>ii. details of the relative condition and values of communities on the offset site in comparison to those to be impacted, including all areas of native <u>shrubland</u> in moderate to good condition;</p> <p>iii. proposed management</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>actions and expected gains;</p> <p>d) the monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure the outcomes of the package are achieved, including:</p> <p>i. the monitoring of the condition of species and ecological communities at offset locations;</p> <p>ii. the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites;</p> <p>iii. provisions for the annual reporting of</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>the monitoring results for a set period of time as determined in consultation with the OEH; and</p> <p>e) <u>timing</u> and responsibilities for the implementation of the provisions of the Package.</p> <p>Land offsets shall be consistent with the <i>Principles for the use of Biodiversity Offsets in NSW</i> (NSW Office of Environment and Heritage, June 2011). Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region.</p> <p>Where monitoring referred to in condition (d) indicates that biodiversity outcomes are not being achieved, remedial actions shall be undertaken to ensure that the objectives of the Biodiversity Offset Package are achieved.</p> <p>Within one from approval from the Director-General the Proponent shall, in conjunction with the lessee of Western Lands Lease 14240, apply to the Crown Lands Division of the Department of Trade and Investment for a Change of</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Lease Purpose of Western Land Lease 14240 to appropriately record the biodiversity offset on title and within the lease conditions as a conservation area.						
	Decommissioning Management Plan						
C6.	Prior to the commencement of decommissioning, or as otherwise agreed by the Director-General, the Applicant shall prepare (in consultation with the relevant landowner) and implement (following approval) a Decommissioning Management Plan for the project. The Plan shall outline the environmental management practices and procedures that are to be	Maintains responsibility for preparing a single plan to satisfy this condition					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>followed during decommissioning, and shall be prepared in consultation with the relevant agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004) or any replacement guideline. The Plan shall include, but not necessarily be limited to:</p> <p>a) a description of activities to be undertaken during decommissioning of the project (including staging and scheduling);</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>b) statutory and other obligations the Applicant is required to fulfil during decommissioning, including approval/consents, consultations and agreements required from authorities and other stakeholders under key legislation and policies;</p> <p>c) a description of the roles and responsibilities for relevant employees involved in the decommissioning of the project, including relevant training and induction provisions for ensuring that employees, including contractors and sub-</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>contractors are aware of their environmental and compliance obligations under these conditions of approval;</p> <p>d) an environmental risk analysis to identify the key environmental performance issues associated with the decommissioning phase; and</p> <p>e) details of how environmental performance will be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>of the decommissioning of the project). In particular, the following environmental performance issues shall be addressed in the Plan:</p> <ul style="list-style-type: none"> i. compounds and ancillary facilities management; ii. noise and vibration; iii. traffic and access; iv. soil and water quality and spoil management; v. air quality and dust management; vi. hazardous material and waste management; and vii. hazard and risk management, including bushfire risk. <p>The Plan shall be submitted for the approval of the Director-General no</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	later than one month prior to the commencement of decommissioning, or as otherwise agreed by the Director-General. The Plan may be prepared in stages, however, decommissioning works shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall provide a copy of the Plan to the relevant landowner as soon as practicable.						
	Decommissioning Road Dilapidation						
C7.	Unless otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified	Maintains responsibility for fulfilling this condition.					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	person or team to undertake the following in consultation with the relevant road authority: a) Prior to the commencement of decommissioning of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all public roads proposed to be traversed by decommissioning traffic associated with the project (including over-mass or over-dimensional vehicles) in consultation with the relevant road authority, and to identify any upgrade requirements						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>to accommodate project traffic for the duration of decommissioning (including culvert, bridge and drainage design; intersection treatments; vehicle turning requirements; and site access), having regard to traffic volumes. The Decommissioning Road Report shall be submitted to the Director-General prior to the commencement of decommissioning works, clearly identifying recommendations made by the relevant road authority and how these have been addressed. The</p>						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>Proponent shall ensure that all upgrade measures identified in the report are implemented to meet the reasonable requirements of the relevant road authority, prior to the commencement of decommissioning.</p> <p>b) <u>upon</u> determining the haulage route(s) for decommissioning vehicles associated with the project, and prior to decommissioning, an independent and qualified person or team shall undertake a Road Dilapidation Report. The report shall assess the current condition of the</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage.</p> <p>Following completion of decommissioning, a subsequent report shall be prepared to assess any damage that may have resulted from the decommissioning of the project.</p> <p>Measures undertaken to restore or reinstate roads affected by the project shall be undertaken in a timely</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.						
	REPORTING						
	Incident Reporting						
C8.	The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware	Maintains responsibility for reporting to satisfy this condition	Incident reporting protocols will be developed specific to this stage	Incident reporting protocols will be developed specific to this stage	Incident reporting protocols will be developed specific to this stage	Incident reporting protocols will be developed specific to this stage	Incident reporting protocols will be developed specific to this stage

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.						
	Regular Reporting						
C9.	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	Maintains responsibility for reporting to satisfy this condition	Applicable	Applicable	Applicable	Applicable	Applicable
	COMMUNITY						
	Community Information, Consultation and Involvement						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
C10.	Subject to reasonable confidentiality requirements, the Proponent shall make all documents required under this approval available for public inspection on request.	Maintains responsibility for addressing this condition					
	Provision of Electronic Information						
C11.	Prior to the commencement of construction, the Proponent shall establish a dedicated website or maintain dedicated pages within its existing website for the provision of electronic information associated with the project. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages	Maintains responsibility for addressing this condition					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	including, but not necessarily limited to: a) the status of the project; b) a copy of this approval and any future modification to this approval; c) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project; d) a copy of each plan, report, or monitoring program required by this approval; and e) details of the outcomes of compliance reviews and audits of the project..						
	Community Information Plan						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
C12.	Prior to the commencement of construction, the Proponent shall prepare and implement a Community Information Plan which sets out the community communication and consultation processes to be implemented during construction and operation of the project. The Plan shall include but not be limited to: a) procedures to inform the local community of planned investigations and construction activities, including blasting works (if any); b) procedures to inform the relevant community of construction traffic routes and any potential disruptions to	A Community Consultation Plan would be developed to address this and other issues related to the community. The Applicant maintains responsibility for preparing and implementing this plan to satisfy this condition.					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>traffic flows and amenity impacts;</p> <p>c) procedures to consult with local landowners/residents with regard to construction traffic to ensure the safety of livestock and to limit disruption to livestock movements;</p> <p>d) procedures to inform the community where work outside the construction hours specified in condition B25, in particular noisy activities, has been approved; and</p> <p>e) procedures procedures to inform and consult with the Crown Lands Division of the Department of Trade and Investment</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	to rehabilitate impacted land.						
	Complaints Procedure						
C13.	<p>Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation) or as otherwise agreed by the Director-General:</p> <p>a) a 24 hour telephone number on which complaints about construction and operational activities at the site may be registered;</p> <p>b) a postal address to which written</p>	Maintains responsibility for addressing this condition					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>complaints may be sent; and</p> <p>c) an email address to which electronic complaints may be transmitted.</p> <p>The telephone number, postal address and e-mail address shall be advertised in a newspaper circulating in the local area on at least one occasion prior to the commencement of construction; and at six-monthly intervals during construction and for a period of two years following commencement of operation of the project. These details shall also be provided on the Proponent's internet site required by condition C11. The telephone number, the postal address and the</p>						

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	email address shall be displayed on a sign near the entrance to the construction site(s), in a position that is clearly visible to the public.						
C14.	<p>The Proponent shall record details of all complaints received through the means listed in condition C13 of this approval in an up-to-date Complaints Register. The Register shall record, but not necessarily be limited to:</p> <p>d) the date and time, of the complaint;</p> <p>e) the means by which the complaint was made (telephone, mail or email);</p> <p>f) any personal details of the complainant that were provided, or if no</p>	One complaints strategy will be developed by AGL and implemented throughout each stage to address this condition.	Applicable. Required to provide information to Proponent.	Applicable. Required to provide information to Proponent.	Applicable. Required to provide information to Proponent.	Applicable. Required to provide information to Proponent.	Applicable. Required to provide information to Proponent.

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition C14. Any subsequent detailed response or action is to be provided within two weeks.						
	COMPLIANCE						
	Compliance Tracking Program						
C16.	Prior to the commencement of construction, the Proponent shall develop and implement a Compliance Tracking Program, to track compliance with the requirements of this approval during the	Maintains responsibility for addressing this condition	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>details were provided, a note to that effect;</p> <p>g) the nature of the complaint;</p> <p>h) any action(s) taken by the Applicant in relation to the complaint, including timeframes for implementing the action; and</p> <p>i) if no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken.</p> <p>The Complaints Register shall be made available for inspection by the Director-General upon request.</p>						
C15.	The Proponent shall provide an initial response to any complaints made in relation to the project	Maintains responsibility for addressing this condition	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition C14. Any subsequent detailed response or action is to be provided within two weeks.						
	COMPLIANCE						
	Compliance Tracking Program						
C16.	Prior to the commencement of construction, the Proponent shall develop and implement a Compliance Tracking Program, to track compliance with the requirements of this approval during the	Maintains responsibility for addressing this condition	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions	Compliance tracking would be undertaken for relevant conditions

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	construction and operation of the project and shall include, but not necessarily be limited to: a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project and within two years of operation commencement; b) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>Management Systems Auditing;</p> <p>c) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;</p> <p>d) mechanisms for recording environmental incidents and actions taken in response to those incidents;</p> <p>e) provisions for reporting environmental incidents to the Director-General during construction and operation; and</p> <p>f) provisions for ensuring all employees, contractors and sub-contractors are aware</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	of, and comply with, the conditions of this approval relevant to their respective activities.						
Statement of Commitments							
	Environmental Management						
EM1	The head contractor for the project will have an environmental management system, including a performance and compliance auditing program.	Maintains responsibility for addressing this commitment.	Applicable	Applicable	Applicable		
EM2	A Construction Environmental Management Plan (CEMP) will be prepared and implemented before the start of any construction activities. The CEMP will include details on the Aboriginal Heritage	Maintains ultimate responsibility for ensuring that the contents of individual contractor sub-plans are able to satisfy this commitment.	Refer to Section 2.1.	Sub-plans will be developed specific to this stage	Sub-plans will be developed specific to this stage		

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Management Plan, which will be finalised and implemented prior to the commencement of construction of the solar plant.						
EM3	A CEMP and an Operation Environmental Management Plan (OEMP) will be prepared for the site in consultation with the relevant authorities including the NSW Office of Water, OEH and RMS.	Maintains ultimate responsibility for ensuring that the contents of individual contractor OEMPs are able to satisfy this condition				An OEMP will be developed specific to this stage	An OEMP will be developed specific to this stage
	Community Consultation						
CC1	A community consultation plan will be prepared and implemented. The plan will include a project phone number, e-mail and website for community input, a complaints handling procedure, and	Maintains responsibility for addressing this commitment.					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	procedures for targeted consultation with affected stakeholders.						
	Visual Impacts						
V1	Vegetation removal will be avoided as far as practicable during construction. Any native vegetation near the outside edge of the solar PV plant site boundary will be cordoned off to minimise the risk of accidental disturbance.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
V2	Vehicles will remain on designated paths during construction to avoid degradation of the landscape.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
V3	Construction equipment and infrastructure will be demobilised from site as soon as practicable and all	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	unnecessary project flagging and signage will be removed and disposed of at the completion of construction.						
V4	Plantings of locally indigenous, shrubby vegetation will be provided along the north eastern and part of the north western boundary of the solar PV plant site to mitigate the visual impacts on views to The Pinnacles from the Barrier Highway, Silverton Road and Magazine Way. Plant species will be selected so as not to block views of The Pinnacles.	Maintains ultimate responsibility for commitment being met.		A sub-plan will be developed specific to this stage			
V5	Access tracks will be constructed of locally sourced gravel (to the extent required) that	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	matches the colour of the existing site surface as far as practicable.						
V6	Underground cabling will be used where practical. The colour of aboveground ancillary electrical equipment associated with the solar PV plant will be selected to best integrate with the surrounding landscape, with preference given to earthy tones such as pale green and pale brown.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
V7	In the event that glare from the solar plant is evident from a public road and causes a nuisance, distraction and/or hazard to motorists, the proponent shall immediately implement further glare mitigation measures.	Maintains ultimate responsibility for commitment being met.		Applicable			

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			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Noise Impacts						
N1	Although construction noise impacts are unlikely, identified sensitive receivers in the vicinity of the project site are to be given adequate prior notice of the construction program, kept informed throughout the construction period, and provided with a name and contact number for construction noise information and complaints. Any noise complaints will be dealt with through the standard complaints management procedure identified in the community consultation plan.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
N2	Construction noise and vibration will be minimised	Maintains ultimate responsibility for ensuring that the	Environmental risk management documentation	A Noise Management Sub-plan will be developed specific to	A Noise Management Sub-plan will		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	as far as practical through the implementation of all feasible and reasonable measures. These measures will be specified within a Construction Noise and Vibration Management Plan (CNVMP). The CNVMP will also include project-specific objectives and protocols for management of construction noise.	contents of individual contractor sub-plans are able to satisfy this condition	specific to the enabling works will be developed if required.	this stage in accordance with MCoA C3(d) .	be developed specific to this stage in accordance with MCoA C3(d) .		
N3	Construction activities will take place during standard working hours (7.00am to 6.00pm Monday to Friday, 8.00am to 1.00pm Saturday and no work on Sunday or public holidays). Any work outside of these hours will be undertaken in accordance with the Interim Construction Noise Guideline (OEH, 2009).	Maintains ultimate responsibility for condition being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Noise Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(d) . This sub-plan will include an OOHW protocol.	A Noise Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(d) . This sub-plan will include an		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	The CNVMP will specify protocols for notification of potentially affected receivers for out-of-hours work.				OOHW protocol.		
N4	Where feasible, the proponent will conduct noisy construction activities in consultation with sensitive receivers.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
N5	Construction equipment and methodologies will be selected in consideration of the need to minimise noise levels where feasible and reasonable.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
	Flora and Fauna						
FF1	Clearing of native vegetation will be restricted to the minimum area necessary for construction. Clearing boundaries will be specified within the CEMP	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will	A Flora and Fauna Management Sub-plan will be developed specific to this stage	A Flora and Fauna Management Sub-plan will be developed specific to		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	and delineated on site with appropriate boundary or exclusion fencing.		be developed if required.	in accordance with MCoA C3(a) .	this stage in accordance with MCoA C3(a) .		
FF2	Vehicle speed limits will be enforced along internal access roads to minimise the incidence of wildlife mortality from construction and operation vehicles.	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .		
FF3	A buffer zone of 500 metres in radius will be placed around the raptor nest site should it still be present at time of construction. No construction vehicles or personnel will enter this restricted area unless	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	assessing the presence of this species.				with MCoA C3(a) .		
FF4	The CEMP and the OEMP will include monitoring requirements for the raptor nest located near to the project site. The monitoring requirements will be prepared in consultation with OEH.	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	An OEMP will be developed specific to this stage in accordance with MCoA C4 .	An OEMP will be developed specific to this stage in accordance with MCoA C4 .
FF5	The site CEMP will specify management procedures for vegetation clearing and details for an ecologist to undertake a pre-clearing survey and to be present during all clearing activities.	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
FF6	Appropriate waste management practices will be followed to prevent attracting or encouraging feral animals to the site during the construction period.	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .	A Flora and Fauna Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(a) .		
FF7	Degraded portions of the site outside of the impact footprint will be restored to the extent required to a) reduce the potential for wind erosion, b) improve opportunities for fauna habitation and movement across the landscape, and c) reduce the risk of weed invasion.	Maintains ultimate responsibility for commitment being met.		A Ground Cover Management Sub-Plan and Landscape Management Sub-Plan will be developed specific to this stage in accordance with MCoA C3(b) and C3(c) .	A Ground Cover Management Sub-Plan and Landscape Management Sub-Plan will be developed specific to this stage in accordance with MCoA		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
					C3(b) and C3(c).		
FF8	Site restoration and re-vegetation activities will be undertaken during and after construction. All re-vegetation activities will be undertaken using locally endemic native species.	Maintains ultimate responsibility for commitment being met.	Applicable	A Ground Cover Management Sub-Plan and Landscape Management Sub-Plan will be developed specific to this stage in accordance with MCoA C3(b) and C3(c).	A Ground Cover Management Sub-Plan and Landscape Management Sub-Plan will be developed specific to this stage in accordance with MCoA C3(b) and C3(c).		
FF9	Appropriate weed management strategies will be implemented during construction and operation.	Maintains ultimate responsibility for commitment being met.	Applicable	A Ground Cover Management Sub-Plan and Landscape Management Sub-Plan will be developed specific to this stage in	A Ground Cover Management Sub-Plan and Landscape Management		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
				accordance with MCoA C3(b) and C3(c).	Sub-Plan will be developed specific to this stage in accordance with MCoA C3(b) and C3(c).		
FF10	An Offset Management Strategy will be developed, including an Offset Management and Rehabilitation Plan, in consultation with OEH. The Strategy is to include: <ul style="list-style-type: none"> • Details on the area of the offset. • Vegetation communities present and their current condition. • Tenure of the land within the offset. 	Maintains responsibility for preparing a single package to satisfy this commitment. The Plan will be developed in accordance with MCoA C5					

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<ul style="list-style-type: none"> • Identification of a mechanism that protects the area in perpetuity. • Identification and costing of management issues, including fencing and weed/feral animal control. • Monitoring details to determine the effectiveness of the management actions. <p>The Offset Management Strategy will be prepared in consultation with the agencies responsible for the management of the <u>Wilyama</u> Common and will consider the cumulative impacts of clearing in the <u>Wilyama</u> Common for the transmission line.</p>						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	Aboriginal Heritage						
IH1	The proponent will consult with Aboriginal stakeholders regarding management of the 14 Aboriginal heritage sites recorded during the site survey. An Aboriginal Heritage Management Plan (AHMP) will be developed in consultation with these stakeholders and OEH to specify how the sites will be protected in-situ, relocated or salvaged.	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Heritage Management Sub-plan will be developed specific to this stage in accordance with <u>MCoA C3(f)</u> .	A Heritage Management Sub-plan will be developed specific to this stage in accordance with <u>MCoA C3(f)</u> .		
IH2	Protocols will be developed to manage and protect Aboriginal artefacts or suspected human remains which may be encountered during construction. These protocols will be specified in the AHMP and may	Maintains ultimate responsibility for commitment being met.	Environmental risk management documentation specific to the enabling works will be developed if required.	A Heritage Management Sub-plan will be developed specific to this stage in accordance with <u>MCoA C3(f)</u> .	A Heritage Management Sub-plan will be developed specific to this stage in accordance		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	include stopping works in the vicinity of the find, notification of relevant stakeholders and implementation of an appropriate management strategy.				with MCoA C3(f) .		
IH3	All construction personnel will receive training in the management of Aboriginal artefacts and objects, including legal obligations, the application of protocols, and the recognition of artefacts.	Maintains ultimate responsibility for commitment being met.	Applicable	A Heritage Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(f) . Training requirements will also be outlined in the CEMP for this stage.	A Heritage Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(f) . Training requirements will also be outlined in the CEMP for this stage.		
	Traffic and Transport						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
TT1	The proponent or its contractor will determine the final details of haulage during detailed transport planning, in consultation with RMS. Road and intersection works will be approved and completed prior to the commencement of construction of the solar plant, and will be at no cost to RMS.	Maintains ultimate responsibility for commitment being met.	Applicable	A Traffic Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(e) .	A Traffic Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(e) .		
TT2	The existing site access road off the Barrier Highway and the associated intersection will be upgraded in accordance with RMS standards to accommodate construction traffic and on-going maintenance access.	Maintains ultimate responsibility for commitment being met in accordance with MCoA B31					
TT3	A Traffic Management Plan will be prepared and implemented for the	Maintains ultimate responsibility for commitment being met.	Applicable	A Traffic Management Sub-plan will be developed specific to	A Traffic Management Sub-plan will		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>construction, operation and decommissioning phases of the project. The plan will specify:</p> <ul style="list-style-type: none"> • Travel routes and parking areas for construction and operations traffic. • Origin, number, size and frequency of vehicles accessing/exiting the site. • Speed limits and directions of travel on the access roads within the site. • Loads, weights and lengths of haulage and construction related vehicles. • Scheduling of haulage vehicle movements to 			this stage in accordance with MCoA C3(e) .	be developed specific to this stage in accordance with MCoA C3(e) .		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<p>minimise convoy length and platoons.</p> <ul style="list-style-type: none"> • Traffic control requirements, including requirements for signage, barriers and traffic control personnel. • The management and coordination of vehicle movements to the site and measures to limit disruption to other motorists, emergency vehicles and school bus timetables. • Details of intersection improvement works in accordance with Austroads Guide to Road Design 2010 and RMS supplements. 						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	solar PV plant and transmission line.					accordance with MCoA C4.	accordance with MCoA C4.
HR3	Any dangerous goods or hazardous materials kept at the construction site will be stored in a securely bunded area of sufficient containment capacity.	Maintains ultimate responsibility for condition being met in accordance with MCoA B5	Applicable	Applicable	Applicable	Applicable	Applicable
HR4	Where dangerous goods or hazardous materials are to be stored on the construction site, an effective spill kit will be available for use at all times. Any accidental spills will be contained and cleaned up immediately.	Maintains ultimate responsibility for condition being met in accordance with MCoA B5	Applicable	Applicable	Applicable	Applicable	Applicable
HR5	Major plant and equipment will be re-fuelled either off site or by a mobile mini-fuel tanker with a spill procedure and spill kit.	Maintains ultimate responsibility for condition being met in accordance with MCoA B5	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
TT4	A road condition survey will be undertaken before construction to determine the potential impacts on the structural integrity of road infrastructure. The proponent will prepare a Traffic Management Plan in consultation with Broken Hill City Council and the RMS. This plan will set out the requirements for road management and monitoring.	Maintains ultimate responsibility for commitment being met.		Applicable	Applicable		
	Hazard and Risk						
HR1	The proposed transmission line route has been selected to avoid EMF impacts on sensitive receivers.	Maintains ultimate responsibility for commitment being met.			Applicable		
HR2	An appropriate Asset Protection Zone will be maintained around the	Maintains ultimate responsibility for commitment being met.				An OEMP will be developed specific to this stage in	An OEMP will be developed specific to this stage in

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
HR6	Transport of dangerous goods or hazardous materials will be undertaken by an appropriately licensed contractor.	Maintains ultimate responsibility for condition being met in accordance with <u>MCoA B5</u>	Applicable	Applicable	Applicable	Applicable	Applicable
HR7	The proponent will develop a Risk Register to identify potential incidents that may occur during construction and the appropriate mitigation procedures.	Maintains ultimate responsibility for commitment being met. Risk registers will form part of both the CEMP and OEMP	Applicable	Applicable. A CEMP will be developed specific to this stage in accordance with <u>MCoA C3</u> .	Applicable. A CEMP will be developed specific to this stage in accordance with <u>MCoA C3</u> .	Applicable. An OEMP will be developed specific to this stage in accordance with <u>MCoA C4</u> .	Applicable. An OEMP will be developed specific to this stage in accordance with <u>MCoA C4</u> .
	Water Management (water supply, water quality and waterways)						
WM1	Appropriate erosion and sediment control measures, consistent with the guidelines of the 'Blue Book' (<u>Landcom, 2006</u>), will be established before	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	any clearing, excavation or ground disturbance begins and will be maintained in effective working order until the works have been completed and the affected ground surfaces stabilised.						
WM2	The area of soil exposure/ disturbance will be kept to the minimum amount necessary.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
WM3	Stockpiles of spoil, fill or erodible material will not be placed in or near watercourses or drainage lines.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
WM4	Construction traffic will be confined to existing established roads and access tracks. During construction, the site access junction with the Barrier Highway will be monitored for build-up of	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	soil or debris. Any soil or debris tracked onto the road will be removed at the end of each work day and disposed of appropriately.						
WM5	Disturbed surfaces will be stabilised and restored as soon as possible using appropriate stabilisation and re-vegetation measures. The plants used for site restoration will comprise native species endemic to the project site and suitable for the site conditions, taking into account soils, climate and shading.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
WM6	To avoid accidental contamination of receiving waterways with chemicals or fuels, the commitments identified for <i>Hazards and</i>	Maintains ultimate responsibility for condition being met in accordance with <i>MCQA B5</i>	Applicable	Applicable	Applicable	Applicable	Applicable

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	<i>risks</i> (above) will be adhered to.						
	Land Use						
L1	Nearby landowners or leaseholders will be informed of the construction schedule and scope of works prior to construction.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
L2	The NSW Department of Primary Industries and the affected leaseholder will be consulted regarding alteration of the lease conditions at the site.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
L3	Easements and associated land use restrictions will be identified on property titles.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
L4	Access to properties surrounding the construction site will not be impeded by construction activities.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
L5	The proponent will consult with current mining exploration and extraction licence and lease holders.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
	Non-indigenous Heritage						
H1	Protocols will be developed to manage and protect artefacts or suspected human remains which may be encountered during construction. The protocols may, as required, include stopping all works in the vicinity of the find, notification of relevant stakeholders and implementation of an appropriate management strategy.	Maintains ultimate responsibility for commitment being met.	Applicable	A Heritage Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(f) .	A Heritage Management Sub-plan will be developed specific to this stage in accordance with MCoA C3(f) .		
H2	All construction personnel will receive training in the management of non-Indigenous relics, including	Maintains ultimate responsibility for commitment being met.	Applicable	A Heritage Management Sub-plan will be developed specific to this stage	A Heritage Management Sub-plan will be developed		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	legal obligations, the application of protocols, and the recognition of relics.			in accordance with MCoA C3(f) . Training requirements will also be outlined in the CEMP for this stage.	specific to this stage in accordance with MCoA C3(f) . Training requirements will also be outlined in the CEMP for this stage.		
	Socio-economic Issues						
S1	Advance notification will be given to nearby residents (including any potentially affected property owners and occupants) on the construction schedule, construction works and access arrangements.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
	Geology and Soils						

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
GS1	The commitments identified for Water management above will address the risks of soil erosion. No additional actions are required for geology and soils.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
	Air Quality and Climate						
AQ1	During construction and operation, all exposed surfaces will be monitored for dust generation, and appropriate dust suppression measures, such as watering, revegetation or application of environmentally acceptable dust suppressant chemicals will be implemented as required.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable. A CEMP will be developed specific to this stage in accordance with MCoA C3 .	Applicable. A CEMP will be developed specific to this stage in accordance with MCoA C3 .	Applicable. An OEMP will be developed specific to this stage in accordance with MCoA C4 .	Applicable. An OEMP will be developed specific to this stage in accordance with MCoA C4 .
AQ2	The access road connecting the Barrier Highway road verge to the	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable			

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	project site will be constructed with packed gravel as required to minimise dust and soil impacts.	in accordance with MCoA B31					
AQ3	Disturbed surfaces will be stabilised and restored as soon as possible using appropriate stabilisation and re-vegetation measures.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
AQ4	Construction vehicles/machinery will not be left running or idling when not in use.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
AQ5	Construction plant will be fitted with appropriate emission controls and will be maintained to reduce exhaust emissions.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
AQ6	Vehicular loads of spoil and other erodible material	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	will be suitably covered during transport.						
AQ7	No burning of vegetation or waste material will take place on the construction site.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
	Waste Management						
W1	All works will be conducted in accordance with the waste management hierarchy established by the <i>Waste Avoidance and Resource Recovery Act 2001</i> .	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W2	Excavated spoil will be re-used on the project site for fill or landscaping, where possible.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W3	Native vegetation cleared for the project will be used in site restoration and landscaping or 'wind-rowed' along the edges of	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	the transmission line easement, where possible.						
W4	Excess spoil or green waste which cannot be reused on site will be transported to the Broken Hill City Council Recycling facility.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W5	Excess materials that are not re-usable or recyclable will be disposed of at the Broken Hill City Council Waste Depot.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W6	Transport of wastes to recycling or waste disposal facilities will be undertaken by an appropriately licensed waste transporter.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W7	Waste oils, greases and chemicals generated during construction will be stored in appropriately <u>bunded</u> areas prior to their	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

ID	Requirement	AGL Proponent	Stage 0 Enabling works	Stage 1 Solar plant construction	Stage 2 Connection works construction	Stage 3 Solar plant operation	Stage 4 Transmission line maintenance and operation
			Proponent and Contractors	Solar Plant Contractor	Connection Works Contractor	Solar Plant Operator	Connection Works Operator
	removal for recycling or disposal.						
W8	Soils contaminated through fuel or chemical spills will be excavated and transported to a licensed waste facility and the resulting excavations will be backfilled with clean soil.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W9	Invasive weeds will be collected in plastic bags to the extent possible and disposed of at a licensed green waste disposal facility or landfill.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		
W10	General wastes will be segregated into recyclable and non-recyclable streams through the provision of appropriate bins on the construction site.	Maintains ultimate responsibility for commitment being met.	Applicable	Applicable	Applicable		

Appendix C - Responsibilities for Approval Conditions and OEMP Management Actions

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	CONDITIONS OF APPROVAL				
	PART A - ADMINISTRATIVE CONDITIONS				
	Obligation to Minimise Harm to the Environment				
A1	The Proponent shall implement all reasonable and feasible measures to prevent and/or minimise any harm to the environment that may result from the construction, operation or decommissioning of the Project.	First Solar	Execute compliance requirements	Monthly Environmental Monitoring (Form D01) O&M Monthly Site Safety Inspection (Form FS-EHS-IPF5)	100% compliant
	Terms of approval				
A2	The Proponent shall carry out the project generally in accordance with the: a) Major Projects Application 10_0202;	AGL	Execute compliance requirements relevant to O&M	<ul style="list-style-type: none"> Monthly Environmental Monitoring (Form D01 App. Q) O&M Monthly Site Safety Inspection (App. H) 	100% Compliance
	b) Broken Hill Solar Plant Environmental Assessment prepared by Sinclair Knight Merz dated October 2012;	AGL/ First Solar	Reviewed with no additional requirements for O&M identified		
	c) Broken Hill Solar Plant Submissions and Preferred Project Report prepared by Sinclair Knight Merz dated February 2013; and	AGL	Reviewed with no additional requirements for O&M identified		
	d) conditions of this approval.	AGL	<ul style="list-style-type: none"> As defined in this Table Execute compliance requirements relevant to O&M 	<ul style="list-style-type: none"> Monthly Environmental Monitoring (Form D01 App.Q) 	100% Compliance

² Shaded Requirements are not applicable, based on the Staging Report.

³ As delineated contractually in Exhibit G Responsibilities for permits in MSA 1 June 2015 (AGL & FS)

⁴ The main actions will be the use of Monthly Environmental Monitoring (Form D), Monthly O&M Safety Inspection (FS-EHS-IP-F5), Waste Register (U01), Revegetation and Rehabilitation Form (Form H01), Weed Monitoring Form (Form I01), and completion of inductions (Appendix E), and maintenance of EHS Corrective Action register (SCAR).

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
				<ul style="list-style-type: none"> • O & M Monthly Site Safety Inspection (App. H) • Hazard reports used to report non-conformances (App. T) • EHS Corrective Actions Register (App. X SCAR) • Task Observation Forms e.g. TBO, Management TBO (App J) • Compliance Tracking Program and Management Review (App Q) • Annual review of Risk Register (App. L) 	
A3	If there is any inconsistency between the plans and documentation referred to above, the most recent document shall prevail to the extent of the inconsistency. However, conditions of this approval prevail to the extent of any inconsistency.	AGL	Noted	Not Triggered	100% compliance
A4	<p>The Proponent shall comply with any reasonable requirement(s) of the Director-General arising from the Department's assessment of:</p> <p>a) any reports, plans or correspondence that are submitted in accordance with this approval; and</p> <p>b) the implementation of any actions or measures contained within these documents.</p>	First Solar	<p>As defined in these tables (1-3)</p> <p>Execute Compliance requirements relevant to O&M</p>	As required	100% compliance
	Limits of Approval				
A5	This project approval shall lapse five years after the date on which it is granted, unless any works the subject of this approval have physically commenced before that time.				
	Staging				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
A6	<p>The Proponent may elect to construct and/ or operate the Project in stages. Where staging is proposed, the Proponent shall submit a Staging Report to the Director-General and Crown Lands Division of the Department of Trade and Investment prior to the commencement of the first proposed stage. The Staging Report shall provide details of:</p> <ul style="list-style-type: none"> a) how the Project would be staged, including general details of work activities associated with each stage and the general timing of when each stage would commence; and b) details of the relevant conditions of project approval, which would apply to each stage and how these shall be complied with across and between the stages of the Project. <p>Where staging of the Project is proposed, these conditions of approval are only required to be complied with at the relevant time and to the extent that they are relevant to the specific stage(s).</p> <p>The Proponent shall ensure that an updated Staging Report (or advice that no changes to staging are proposed) is submitted to the Director-General Crown Lands Division of the Department of Trade and Investment prior to the commencement of each stage, identifying any changes to the proposed staging or applicable conditions.</p>				
	Structural Adequacy				
A7	<p>The Proponent shall ensure that all new buildings and structures, and any alterations or additions to existing buildings and structures, are constructed in accordance with the relevant requirements of the BCA. For the purpose of section 75S(2)(b) of the Act, the relevant provisions, as defined in section 75S(1A) of the Act apply to this approval.</p>				
	Decommissioning				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
A8	<p>Within one year of decommissioning, the site shall be returned, as far as practicable, to its condition prior to the commencement of construction in consultation with the Crown Lands Division of the Department of Trade and Investment or any relevant landowners. All solar panels and associated above ground structures including but not necessarily limited to, the control and facilities building and electrical infrastructure, including underground infrastructure to a depth of 300 millimetres, shall be removed from the site unless otherwise agreed by the Director-General in consultation with Crown Lands Division of the Department of Trade and Investment, except where the, control room or overhead electricity lines are transferred to or in the control of the local electricity network operator. All other elements associated with the project, including site roads, shall be removed unless otherwise agreed to by the Director-General.</p>	AGL	Noted	Review at 1 year prior to decommissioning	100% Compliance
A9	<p>If the solar plant is not used for the generation of electricity for a continuous period of 12 months, it shall be decommissioned by the Proponent, unless otherwise agreed by the Director-General and the Crown Lands Division of the Department of Trade and Investment. The Proponent shall keep independently-verified annual records of the use of the solar panels for electricity generation. Copies of these records shall be provided to the Director-General upon request. The solar panels and any associated infrastructure are to be dismantled and removed from the site by the Proponent within 18 months from the date that the solar panels were last used to generate electricity.</p>	AGL	Review panel usage annually	Keep records on panel usage	100% Compliance to record keeping requirements
A11	<p>Prior to the commencement of construction, the Proponent shall provide written evidence to the satisfaction of the Director-General that the lease agreements with the</p>				

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	Crown Lands Division of the Department of Trade and Investment have adequate provisions to require that decommissioning occurs in accordance with this approval, and is the responsibility of the Proponent.				
	Compliance				
A12	The Proponent shall ensure that employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.	First Solar	Provide relevant instructions	As required Keep induction records (forms and induction material in Appendix I)	100% inductions completed and record keeping requirements
A13	The Proponent shall be responsible for environmental impacts resulting from the actions of all persons that it invites onto the site, including contractors, sub-contractors and visitors.	First Solar	Provide relevant inductions	As required Keep induction records (forms and induction material in Appendix I)	100% inductions completed and record keeping requirements
A14	In the event of a dispute between the Proponent and a public authority, in relation to an applicable requirement in this approval or relevant matter relating to the project, either party may refer the matter to the Director-General for resolution. The Director-General's determination of any such dispute shall be final and binding on the parties.				
	PART B - ENVIRONMENTAL PERFORMANCE				
	GENERAL CONDITIONS				
	Ancillary Facilities				
B1	Unless otherwise approved by the Director-General, the location of Ancillary Facilities shall: <ul style="list-style-type: none"> a) be located more than 50 metres from a waterway; b) be located within or adjacent to the Site; c) have ready access to the road network; d) be located to minimise the need for heavy vehicles to travel through residential areas; e) be sited on relatively level land; f) be separated from nearest residences by at least 200 metres 				

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	<p>(or at least 300 metres for a temporary batching plant);</p> <p>g) not require vegetation clearing beyond that already required by the Project;</p> <p>h) not impact on heritage sites (including areas of archaeological sensitivity) beyond those already impacted by the Project;</p> <p>i) not unreasonably affect the land use of adjacent properties;</p> <p>j) be above the 20 ARI flood level unless a contingency plan to manage flooding is prepared and implemented; and</p> <p>k) provide sufficient area for the storage of raw materials to minimise, to the greatest extent practical, the number of deliveries required outside standard construction hours.</p> <p>The location of the Ancillary Facilities shall be identified in the CEMP.</p>				
B2	The site of all ancillary facilities shall be rehabilitated to at least their pre-construction condition, unless otherwise agreed by the Crown Lands Division of the Department of Trade and Investment.				
	Bushfire Risk				
B3	<p>The Proponent shall ensure that all project components on site are designed, constructed and operated to minimise ignition risks, provide for asset protection consistent with relevant NSW Rural Fire Services (RFS) design guidelines (Planning for Bushfire Protection 2006 and Standards for Asset Protection, Undated) and provide for necessary emergency management including appropriate fire-fighting equipment and water supplies on site to respond to a bush fire.</p>	First Solar	<p>Asset protection areas maintained</p> <p>Ongoing engagement with RFS</p> <p>Maintenance of fire-fighting equipment</p>	<p>O&M monthly site safety inspection Appendix H</p> <p>Task based observations Appendix H</p> <p>Monthly environmental monitoring (form D01)</p> <p>Revegetation and rehabilitation Form H01)</p> <p>Keep evidence of RFS engagement (notes added to form D01)</p>	100% compliance
B4	Throughout the operational life of the project, the Proponent shall regularly consult with the local RFS to ensure its familiarity with the project, including the construction timetable	First Solar			

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	and the final location of all infrastructures on the site. The Proponent shall comply with any reasonable request of the local RFS to reduce the risk of bushfire and to enable fast access in emergencies.				
Dangerous Goods					
B5	<p>Dangerous goods, as defined by the Australian Dangerous Goods Code, shall be stored and handled strictly in accordance with:</p> <ol style="list-style-type: none"> all relevant Australian Standards; for liquids, a minimum bund volume requirement of 110% of the volume of the largest single stored volume within the bund; and the <i>Environment Protection Manual for Authorised Officers: Bunding and Spill Management, technical bulletin</i> (Environment Protection Authority, 1997). <p>In the event of an inconsistency between the requirements listed from a) to c) above, the most stringent requirement shall prevail to the extent of the inconsistency.</p>	First Solar	<p>Review DG storage and handling</p> <p>Review storage and handling</p>	<p>Monthly environmental monitoring (form D01)</p> <p>O&M Monthly Site Safety Inspection (Appendix H)</p>	100% compliance
Dust Generation					
B6	<p>The Proponent shall construct and operate the project in a manner that minimises dust generation from the site, including wind-blown and traffic-generated dust as far as practicable.</p> <p>All project related activities on the site shall be undertaken with the objective of preventing visible emissions of dust from the site. Should visible dust emissions attributable to the project occur during construction and operation, the Proponent shall identify and implement all practicable dust mitigation measures, including cessation of relevant works during construction, planting ground covers, using dust suppressants as appropriate, such that emissions of visible dust cease.</p>	First Solar	<p>Reduce vehicle speeds during dusty periods</p> <p>Stop activities (if required)</p> <p>Apply water (as required)</p>	Monthly Environmental Monitoring (Form D01)	Zero dust migrating off site
Water Quality Impact					

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
B7	Except as may be expressly provided by an Environment Protection Licence for the project, the Proponent shall comply with section 120 of the <i>Protection of the Environment Operations Act 1997</i> which prohibits the pollution of waters.	First Solar	Maintain erosion and sediment controls Collection, segregation and storage of all waste	Monthly Environmental Monitoring (Form D01) Complete waste register (Appendix U)	No pollution of water ways
B8	Works within 40m of a watercourse are to be carried out in accordance with the <i>Guidelines for Controlled Activities on Waterfront Land</i> (NOW, July 2012).				
	Construction Soil and Water Management				
B9	Soil and water management measures consistent with <i>Managing Urban Stormwater - Soils and Construction Vol. 1</i> (Landcom, 2004) shall be employed during the construction of the Project to minimise soil erosion and the discharge of sediment and other pollutants to land and/or waters.				
	Waterways				
B10	Waterway crossings shall be designed and constructed in consultation with NOW and DPI (Fisheries) and consistent with DPI (Fisheries) guidelines <i>Policy and Guidelines for Fish Friendly Waterway Crossings</i> (2004) and <i>Fish Passage Requirements for Waterway Crossings</i> (2004).				
	Waste Management				
B11	All waste materials removed from the site shall only be directed to a waste management facility or premises lawfully permitted to accept the materials.	First Solar	Collection, segregation and storage of all waste	Complete Waste Register (Form U01)	Removal of waste off site
B12	Waste generated outside the site shall not be received at the site for storage, treatment, processing, re-processing, or disposal on the site, except as expressly permitted by a licence under the <i>Protection of the Environment Operations Act 1997</i> , if such a licence is required in relation to that waste.	First Solar	Prevent on-site waste deliveries Provide inductions	As required Provide inductions (Forms and Induction Materials in Appendix I)	Zero waste deliveries to site 100% induction compliance
B13	All liquid and/or non-liquid waste generated on the site shall be assessed and classified in accordance	First Solar	Collection, segregation and storage of all	Complete Waste Register (Form U01)	100% compliance

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	with <i>Waste Classification Guidelines</i> (Department of Environment, Climate Change and Water, 2009), or any superseding document.		waste from O & M activities		
	Utilities and Services				
B14	Utilities, services and other infrastructure potentially affected by construction and operation shall be identified prior to construction to determine requirements for access to, diversion, protection, and/or support. Consultation with the relevant owner and/or provider of services that are likely to be affected by the Project shall be undertaken to make suitable arrangements for access to, diversion, protection, and/or support of the affected infrastructure as required. The cost of any such arrangements shall be borne by the Proponent.				
	FLORA & FAUNA				
	Native Vegetation Impacts				
B15	The clearing of all native vegetation is to be limited to the minimal extent practicably required. Details regarding the procedures for clearing vegetation and minimising the extent of clearing shall be clearly included in the Flora and Fauna Management Plan contained in condition C3(a).				
B16	Tree trunks and major branches from cleared trees should be used, to the fullest extent practicable, to enhance habitat (coarse woody debris) in rehabilitated areas (either in offset areas or areas adjoining impacted areas) and included in the Construction Flora and Fauna Management Plan contained in condition C3(a).				
	Fauna Impacts				
B17	The Applicant shall design, construct and operate any overhead transmission line connection to the electricity grid with consideration to reasonable and feasible mitigation measures that can be employed to minimise the risk of bird and bat strike into electricity wires.	AGL	Operate overhead transmission line in accordance with design.	As required	100% compliance

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*B18	<p>Prior to construction the Proponent shall prepare, in consultation with a suitably qualified expert, and implement a management plan for the raptor nesting site described in Figure 7-3 of the Environmental Assessment. This plan shall include, but not be limited to:</p> <ul style="list-style-type: none"> a) an assessment of the foraging, breeding and habitat available to the raptor populations, including a map of the suitable breeding, roosting and foraging habitat on the project site; b) identified protection measures for this habitat; c) a protocol for checking available breeding habitat prior to any construction works being undertaken, with suitable protection measures implemented if nests are identified; d) identified measures to minimise impact and disturbance to the raptors during construction and operation; e) a monitoring program to assess and respond to impacts on the local raptor populations by construction and operations on the project site; and f) if monitoring results demonstrate the nest has been abandoned then further mitigation, such as a provision of an artificial structure to allow a new nest to be built in the offset area should be investigated. <p>A copy of the Plan shall be provided to the Department and the OEH prior to the commencement of construction.</p>	First Solar (see footnote)			
B19	<p>During construction, the Proponent shall maintain a buffer of 500 metres in all directions from the raptor nesting site described in Figure 7-3 of the Environmental Assessment unless otherwise agreed to by the Director-General.</p>				
	VISUAL AMENITY				
	Landscaping Requirements				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
B20	<p>Within six months of the commissioning of the project, the Proponent shall prepare and submit a Visual Impact Verification Report for the Director-General's approval. Unless otherwise agreed to by the Director-General, the Visual Impact Verification Report shall confirm the visual impacts at each of the receptors and roadways identified in the Environmental Assessment as having the potential to be 'highly impacted', considering the final model and layout of generating components on site as well as site specific mitigating factors at the receptors and roadways (such as receptor orientation and intervening screening factors). The Visual Impact Verification Report shall identify all reasonable and feasible screening and landscape planting options available at each receptor and roadways at which potential impacts have been verified to be 'high' including demonstration that these measures have been determined in consultation with affected receptors and relevant road authorities.</p>				
B21	<p>Within 18 months of the approval of the Visual Impact Verification Report by the Director-General (or as otherwise agreed to by the Director-General), the Proponent shall ensure that the measures identified in the Report are implemented at affected receptors and roadways as identified in the Report in consultation with the Crown Lands Division of the Department of Trade and Investment, other relevant residents/landowners and road authorities.</p>				
B22	<p>The Proponent shall ensure that any permanent buildings and overhead transmission lines are designed and constructed to minimise visual intrusion to nearest sensitive receptors as far as reasonable and feasible, including appropriate external finishes and landscape planting to screen views.</p>				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	Rehabilitation and Revegetation				
B23	The Proponent shall implement a revegetation and rehabilitation program for all areas of the project footprint which are disturbed during the construction of the project but which are not required for the ongoing operation of the project including temporary construction facility sites and sections of construction access roads. The Proponent shall ensure that all revegetation measures are implemented progressively where possible and in all cases within six months of the cessation of construction activities at the relevant area. Unless otherwise agreed to by the Director-General, the Proponent shall monitor and maintain the health of all revegetated areas until such time that the plantings have been verified by an independent and suitably qualified expert (whose appointment has been agreed to by the Director-General) as being well established, in good health and self-sustaining.	AGL	<ul style="list-style-type: none"> Monitor rehabilitation Replant unviable plantings (no later than <<DATE>> season) 	<ul style="list-style-type: none"> Establish specific monitoring regime for moisture stress, grazing by fauna, impacts of weeds (if any) Independent monitoring by an agreed specialist Monthly Environmental Monitoring (Form D01 App. Q) Ground Cover Monitoring (Form H01 App V) 	<ul style="list-style-type: none"> 100% rehabilitation success (as recommended by agreed specialist)
	NOISE - CONSTRUCTION				
	Construction Noise				
B24	Construction activities associated with the project shall be undertaken during the following standard construction hours: <ul style="list-style-type: none"> a) 7:00am to 6:00pm Mondays to Fridays, inclusive; b) 8:00am to 1:00pm Saturdays; and c) at no time on Sundays or public holidays. Except unless otherwise provided in condition B25.				
B25	Construction works outside of the standard construction hours identified in condition B24 may be undertaken in the following circumstances: <ul style="list-style-type: none"> a) construction works that generate noise that is: <ul style="list-style-type: none"> i. no more than 5 dB(A) above rating background level at 				

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	<p>any residence in accordance with the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009); and</p> <p>ii. no more than the noise management levels specified in Table 3 of the Interim Construction Noise Guideline (Department of Environment and Climate Change, 2009) at other sensitive receivers; or</p> <p>b) for the delivery of materials required outside those hours by the NSW Police Force or other authorities for safety reasons; or</p> <p>c) where it is required in an emergency to avoid the loss of life, property and/or to prevent environmental harm;</p> <p>d) works as approved through the out-of-hours work protocol outlined in the Construction Noise Management Plan required under condition C3(d).</p>				
B26	<p>Any activities resulting in impulsive or tonal noise emission (such as rock breaking, rock hammering, pile driving) shall only be undertaken:</p> <p>a) between the hours of 8:00 am to 5:00 pm Mondays to Fridays;</p> <p>b) between the hours of 8:00 am to 1:00 pm Saturdays; and</p> <p>c) in continuous blocks not exceeding three hours each with a minimum respite from those activities and works of not less than one hour between each block.</p> <p>For the purposes of this condition, 'continuous' includes any period during which there is less than a one hour respite between ceasing and recommencing any of the work the subject of this condition.</p>				
B27	<p>The Proponent shall implement all reasonable and feasible measures to minimise noise generation from</p>				

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	the construction of the Project consistent with the requirements of the <i>Interim Construction Noise Guideline</i> (DECC, July 2009) including noise generated by heavy vehicle haulage and other construction traffic associated with the project				
	NOISE - OPERATION				
	Operational Noise Criteria				
B28	The Proponent shall take all reasonable measures to minimise noise emissions and vibration from all plant and equipment operated on the site such that they do not exceed noise and vibration criteria derived by application of the <i>NSW Industrial Noise Policy</i> (DECC, 2000) and <i>Assessing Vibration: A Technical Guideline</i> (DECC, 2006).	First Solar	Minimise or eliminate noise generating activities	As required and Monthly Environmental Monitoring (Form D01) Conduct inductions (Forms and Induction Materials in Appendix I)	100% Compliance to Statutory / agreed noise limits 100% inductions conducted
	Operational Noise Design Standards – Overhead Transmission Line				
B29	The Proponent shall ensure that any overhead transmission line associated with the project is designed, constructed and operated to minimise the generation of corona and aeolian noise as far as reasonable and feasible at nearest existing sensitive receptors.	AGL	Operate overhead transmission line in accordance with design.	As required	100% compliance
	TRAFFIC AND TRANSPORT				
	Road Dilapidation				
B30	Unless otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake the following in consultation with the relevant road authority: a) Prior to the commencement of construction of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all local public roads proposed to be traversed by construction traffic associated with the project (including over-mass or over-dimensional vehicles) in consultation with the relevant road authority, and to identify any upgrade requirements to accommodate project				

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	<p>traffic for the duration of construction (including culvert, bridge and drainage design; intersection treatments; vehicle turning requirements; and site access), having regard to traffic volumes. The Pre-Construction Road Report shall be submitted to the Director- General prior to the commencement of construction works, clearly identifying recommendations made by the relevant road authority and how these have been addressed. The Proponent shall ensure that all upgrade measures identified in the report are implemented to meet the reasonable requirements of the relevant road authority, prior to the commencement of construction;</p> <p>b) Upon determining the haulage route(s) for construction vehicles associated with the project, and prior to construction, an independent and qualified person or team shall undertake a Road Dilapidation Report. The report shall assess the current condition of relevant local road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage;</p> <p>c) following completion of construction, a subsequent report shall be prepared to assess any damage that may have resulted from the construction of the project; and</p> <p>d) Measures undertaken to restore or reinstate roads affected by the project shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.</p>				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
B31	The intersection of the site access road and the Barrier Highway shall be upgraded prior to the commencement of construction to the satisfaction of and at no cost to the relevant road authority.				
	HERITAGE				
	Heritage Impacts				
B32	If during the course of construction the Proponent becomes aware of any previously unidentified Aboriginal object(s), all work likely to affect the object(s) shall cease immediately and the OEH informed in accordance with the <i>National Parks and Wildlife Act 1974</i> . In addition, registered Aboriginal stakeholders shall be informed of the finds. Works shall not recommence until an appropriate strategy for managing the objects has been determined in consultation with the OEH and the registered Aboriginal stakeholders and written authorisation from the OEH is received by the Proponent.				
B33	If during the course of construction the Proponent becomes aware of any unexpected historical relic(s), all work likely to affect the relic(s) shall cease immediately and the Heritage Office notified in accordance with the <i>Heritage Act 1977</i> . Works shall not recommence until the Proponent receives written authorisation from the Heritage Office.				
	PART B - ENVIRONMENTAL MANAGEMENT, REPORTING AND AUDITING				
	ENVIRONMENTAL REPRESENTATIVE				
C1	Prior to the commencement of construction of the Project, or as otherwise agreed by the Director-General, the Proponent shall nominate for the approval of the Director-General a suitably qualified and experienced Environment Representative(s) that is independent of the design and construction personnel. The Proponent shall employ the Environmental Representative(s) for				

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	<p>the duration of construction, or as otherwise agreed by the Director-General. The Environmental Representative(s) shall:</p> <ul style="list-style-type: none"> a) be the principal point of advice in relation to the environmental performance of the Project; b) monitor the implementation of environmental management plans and monitoring programs required under this approval and advise the Proponent upon the achievement of these plans/ programs; c) have responsibility for considering and advising the Proponent on matters specified in the conditions of this approval, and other licences and approvals related to the environmental performance and impacts of the Project; d) ensure that environmental auditing is undertaken in accordance with the Proponent's Environmental Management System(s); e) be given the authority to approve/ reject minor amendments to the Construction Environmental Management Plan. What constitutes a "minor" amendment shall be clearly explained in the Construction Environmental Management Plan required under Condition C2; f) be given the authority and independence to require reasonable steps be taken to avoid or minimise unintended or adverse environmental impacts, and failing the effectiveness of such steps, to direct that relevant actions be ceased immediately should an adverse impact on the environment be likely to occur; and g) Be consulted in responding to the community concerning the environmental performance of the project where the resolution of points of conflict between the Applicant and the community is required. 				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	ENVIRONMENTAL MANAGEMENT				
	Construction Environmental Management Plan (CEMP)				
C2	<p>The Proponent shall prepare and implement a Construction Environmental Management Plan in consultation with Council and the Crown Lands Division of the Department of Trade and Investment in accordance with the <i>Guideline for the Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004) or any replacement guideline. No construction associated with the project shall commence until written approval of this plan has been received from the Director-General or his nominee. The Plan must include:</p> <ul style="list-style-type: none"> a) a description of all relevant activities to be undertaken on the site during construction including an indication of stages of construction, where relevant; b) identification of the potential for cumulative impacts with other construction activities occurring in the vicinity and how such impacts would be managed; c) details of any construction sites and mitigation, monitoring, management and rehabilitation measures specific to the site compound(s) that would be implemented; d) statutory and other obligations that the Proponent is required to fulfil during construction including all relevant approvals, consultations and agreements required from authorities and other stakeholders, and key legislation and policies; e) evidence of consultation with relevant public authorities required under this condition and how issues raised by the agencies have been addressed in the plan; 				

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	<p>f) a description of the roles and responsibilities for all relevant employees involved in the construction of the project including relevant training and induction provisions for ensuring that all employees, contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval;</p> <p>g) details of how the environmental performance of construction will be monitored, and what actions will be taken to address identified potential adverse environmental impacts;</p> <p>h) specific consideration of relevant measures identified in the documents referred to under conditions A2b) and A2c) of this approval;</p> <p>i) the additional requirements of this approval;</p> <p>j) a complaints handling procedure during construction identified in conditions C12 and C14;</p> <p>k) register of construction work hazards and the anticipated level of risk associated with each;</p> <p>l) measures to monitor and manage soil and water impacts in consultation with NOW including: control measures for works close to or involving waterway crossings (including rehabilitation measures following disturbance and monitoring measures and completion criteria to determine rehabilitation success), identification of construction activities that are likely to pose a risk of groundwater interference, and procedures for managing groundwater impacts should they occur;</p> <p>m) measures to monitor and manage flood impacts in consultation with NOW;</p> <p>n) measures to monitor and manage dust emissions including</p>				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	<p>dust generated by traffic on unsealed public roads and unsealed internal access tracks;</p> <p>o) emergency management measures including measures to control bushfires;</p> <p>p) Information on water sources.</p>				
C3	<p>As part of the Construction Environmental Management Plan required under condition C2 of this approval, the Proponent shall prepare and implement the following:</p> <p>a) Flora and Fauna Management Plan, developed in consultation with the OEH, to outline measures to protect and minimise loss of native vegetation and native fauna habitat as a result of construction of the project. The Plan shall include, but not necessarily be limited to:</p> <p>i. Plans showing terrestrial vegetation communities; important flora and fauna habitat areas; locations of EECs, native pasture; and areas to be cleared. The plans shall also identify vegetation adjoining the site where this contains important habitat areas and/or threatened species, populations or ecological communities;</p> <p>ii. methods to manage impacts on flora and fauna species and their habitat which may be directly or indirectly affected by the project, such as location of fencing, procedures for vegetation clearing or soil removal/stockpiling and procedures for re-locating hollows or installing nesting boxes and managing weeds;</p> <p>iii. procedures to accurately determine the to-</p>				

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	<p>tal area, type and condition of vegetation community to be cleared;</p> <p>iv. reference to the Ground Cover Management Plan and the Management Plan for the raptor nesting site required in condition C3(b) and B18 respectively; and</p> <p>v. a procedure to review management methods where they are found to be ineffective.</p> <p>b) Ground Cover Management Plan, developed in consultation with the Crown Lands Division of the Department of Trade and Investment an agronomist, to outline measures to ensure adequate vegetation cover and composition beneath the solar PV array. The Plan shall include, but not necessarily be limited to:</p> <p>i. procedures to minimise disturbance to ground cover not impacted by the project particularly in the area of the native shrubland in good condition;</p> <p>ii. procedures for the stabilisation, rehabilitation and revegetation of disturbed ground cover including reference to field trials where required;</p> <p>iii. weed management measures to control and prevent the spread of noxious weeds;</p> <p>iv. monitoring methods to assess the impact of the project on the ground cover vegetation; and</p> <p>v. a procedure to review management methods</p>				

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	<p>where they are found to be ineffective.</p> <p>c) a Landscape Plan, to minimise visual impacts from the solar plant. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. identification of landscaping objectives and standards based on visual impacts; ii. details of species used to enhance, mitigate and/or augment landscaping to minimise the visual impact of the project, particularly with respect to the impacts on nearby residences; iii. implementation, management and monitoring strategies to ensure the establishment and ongoing maintenance of landscaped areas; and iv. a consultation strategy to seek feedback from affected residents and the interested community on the proposed landscape measures. <p>d) A Construction Noise Management Plan to manage noise impacts during construction and to identify all feasible and reasonable noise mitigation measures. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. details of construction activities and an indicative schedule for construction works; ii. identification of construction activities that have the potential to generate noise impacts on surrounding land uses, particularly residential areas; 				

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	<ul style="list-style-type: none"> <li data-bbox="260 297 564 488">iii. detail the requirements for Noise Impact Statement(s) for discrete work areas, including construction site compounds; <li data-bbox="260 499 564 651">iv. detail what reasonable and feasible actions and measures would be implemented to minimise noise impacts; <li data-bbox="260 663 564 943">v. procedures for notifying sensitive receivers of construction activities that are likely to affect their noise amenity, as well as procedures for dealing with and responding to noise complaints; <li data-bbox="260 954 564 1877">vi. an out-of-hours work (OOHW) protocol for the assessment, management and approval of works outside of standard construction hours as defined in condition B25 of this approval, including a risk assessment process under which an Environmental Representative may approve out-of-hour construction activities deemed to be of low environmental risk and refer high risk works for the Director-General's approval. The OOHW protocol shall detail standard assessment, mitigation and notification requirements for high and low risk out-of-hour works, and detail a standard protocol for referring applications to the Director-General; and <li data-bbox="260 1888 564 1957">vii. a description of how the effectiveness of these actions and measures 				

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	<p>would be monitored during the proposed works, clearly indicating how often this monitoring would be conducted, the locations where monitoring would take place, how the results of this monitoring would be recorded and reported; and, if any exceedance is detected how any non-compliance would be rectified.</p> <p>e) a Traffic Management Plan to manage traffic conflicts that may be generated during construction. In preparing the Plan, the Proponent shall consult with the Council, RMS and the Crown Lands Division of the Department of Trade and Investment. The Plan shall address the requirements of the relevant road authority and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> i. details of how construction of the project will be managed in proximity to local and regional roads; ii. details of traffic routes for heavy vehicles, including any necessary route or timing restriction for oversized loads; iii. demonstration that all statutory responsibilities with regard to road traffic impacts have been complied with; iv. details of measures to minimise interactions between the project and other users of the roads such as the use of fencing, lights, barriers, traffic diversions etc; v. procedures for informing the public where any 				

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	<p>road access will be restricted as a result of the project;</p> <ul style="list-style-type: none"> vi. procedures to manage construction traffic to ensure the safety of livestock and to minimise disruption to livestock; vii. speed limits to be observed along routes to and from the site and within the site; and viii. details of the expected behavioural requirements for vehicle drivers travelling to and from the site and within the site. <p>f) an Aboriginal Heritage Plan to monitor and manage Aboriginal heritage shall be developed in consultation with the OEH and registered Aboriginal stakeholders, and include the following:</p> <ul style="list-style-type: none"> i. details of further archaeological investigations and/or salvage measures to be carried out prior to construction; ii. procedures for the management of identified objects within the project site; iii. procedures for dealing with unidentified objects and/or human remains; iv. Aboriginal cultural heritage induction processes for construction personnel; and v. Procedures for ongoing Aboriginal consultation and involvement. vi. Upon receipt of the Director-General's approval, the Proponent shall provide a copy of the Plan to the Crown 				

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	Land Division of the Department of Trade and Investment as soon as practicable.				
	Operational Environmental Management Plan				
C4	<p>The Proponent shall prepare and implement an Operation Environmental Management Plan in accordance with the <i>Guideline for the Preparation of Environmental Management Plans</i> (Department of Infrastructure, Planning and Natural Resources, 2004), or any replacement guideline. The Plan is to be prepared in consultation with the Crown Lands Division of the Department of Trade and Investment and Council as relevant. The Plan shall include but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) identification of all statutory and other obligations that the Proponent is required to fulfil in relation to the operation of the project, including all consents, licences, approvals and consultations; b) a management organisational chart identifying the roles and responsibilities for all relevant employees involved in the operation of the project; c) overall environmental policies to be applied to the operation of the project; d) standards and performance measures to be applied to the project, and means by which environmental performance can be periodically monitored, reviewed and improved, (where appropriate) and what actions would be taken in the case that non-compliance with the requirements of this approval are identified. In particular the following environmental performance issues shall be addressed: <ul style="list-style-type: none"> i. bushfire hazard and risk management; 	First Solar	<p>Implementation of this plan (O & M EHS manual Broken Hill Solar Plant)</p> <p>Implementation of this plan (O & M EHS manual Nyngan Solar Plant)</p> <p>Identification of other statutory requirements relevant to operations</p> <p>See Org Chart</p> <p>Implementation of this plan (O & M EHS manual Broken Hill Solar Plant).</p>	<p>Management review eg. Post auditing.</p> <p>Management review eg. Post auditing</p> <p>Refer to Table 3 (below) for identified compliance requirements and management/ monitoring³</p>	<p>100% compliance to relevant consent conditions</p> <p>100% Compliance to these requirement</p>

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	<ul style="list-style-type: none"> ii. management and maintenance of offsets; iii. inspection, monitoring and maintenance of all watercourse crossings; iv. Management measures for the site, including management of vegetation, soil erosion, dust weed control and landholder liaison. <p>e) the environmental monitoring requirements outlined under this approval;</p> <p>f) measures to monitor and manage flood impacts in consultation with NOW;</p> <p>g) information on water sources;</p> <p>h) complaints handling procedures as identified in conditions C13 to C15;</p> <p>i) specific consideration of relevant measures to address any requirements identified in the documents referred to under conditions A2b) and A2c) of this approval; and</p> <p>j) Management policies to ensure that environmental performance goals are met and comply with the conditions of this approval.</p> <p>The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of Operation of the project or within such period as otherwise agreed by the Director-General. Operation shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Proponent shall make the Plan publicly available as soon as practicable and provide a copy of the Plan to the Crown Lands Division of the Department of Trade and Investment as soon as practicable.</p>		<p>See B3 & B4 of this table</p> <p>See C5 of this table</p> <p>See B7 of this table</p> <p>Monitor vegetation in the arrays</p> <p>Monitor dust</p> <p>Monitor weeds</p> <p>Liaise with land holder</p> <p>Monitoring</p> <p>Consult with NSW office of water (NOW)</p> <p>Monitoring</p> <p>Monitoring as required</p> <p>Support AGL in complaints handling process</p> <p>These have all been included in this and the following table</p> <p>Senior management inspections conducted regularly</p> <p>Management review eg. Postauditing</p>	<p>Auditing against OEMP/Consent Conditions</p> <p>As per this document (Table 1- 3) Prior to operations stage</p> <p>Monthly Environmental Monitoring (Form D01)</p> <p>As required</p> <p>Keep records (notes to be kept in form D01)</p> <p>Management reviews after each audit (every 5 years)</p> <p>OEMP Records kept (ie. from this manual)</p>	<p>100% compliance to monitoring requirement</p> <p>100% compliance</p>
	Biodiversity Offset Management Package				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
C5	<p>Following final design and prior to the commencement of construction, or as otherwise agreed to by the Director-General, the Proponent shall develop and submit a Biodiversity Offset Management Package for the approval of the Director-General. The package shall detail how the ecological values lost as a result of the Project will be offset. The Biodiversity Offset Management Package shall be developed in consultation with the OEH and shall (unless otherwise agreed by the Director-General) include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) an assessment of all native vegetation communities, threatened species habitat and Willyama Common land that will either be directly or indirectly impacted by the proposal; b) the objectives and biodiversity outcomes to be achieved (including 'improve or maintain' biodiversity values), and the adequacy of the proposed offset considered; c) the final suite of the biodiversity offset measures selected and secured including but not necessarily limited to: <ul style="list-style-type: none"> i. an offset proposal which is supported by a suitable metric method (such as the Biobanking Assessment Methodology); ii. details of the relative condition and values of communities on the offset site in comparison to those to be impacted, including all areas of native shrubland in moderate to good condition; iii. proposed management actions and expected gains; d) the monitoring requirements for compensatory habitat works and other biodiversity offset measures proposed to ensure 				

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	<p>the outcomes of the package are achieved, including:</p> <ul style="list-style-type: none"> i. the monitoring of the condition of species and ecological communities at offset locations; ii. the methodology for the monitoring program(s), including the number and location of offset monitoring sites, and the sampling frequency at these sites; iii. provisions for the annual reporting of the monitoring results for a set period of time as determined in consultation with the OEH; and <p>e) Timing and responsibilities for the implementation of the provisions of the Package.</p> <p>Land offsets shall be consistent with the <i>Principles for the use of Biodiversity Offsets in NSW</i> (NSW Office of Environment and Heritage, June 2011). Any land offset shall be enduring and be secured by a conservation mechanism which protects and manages the land in perpetuity. Where land offsets cannot solely achieve compensation for the loss of habitat, additional measures shall be provided to collectively deliver an improved or maintained biodiversity outcome for the region.</p> <p>Where monitoring referred to in condition (d) indicates that biodiversity outcomes are not being achieved, remedial actions shall be undertaken to ensure that the objectives of the Biodiversity Offset Package are achieved.</p> <p>Within one from approval from the Director-General the Proponent shall, in conjunction with the lessee of Western Lands Lease 14240, apply to the Crown Lands Division of the Department of Trade and Investment for a Change of Lease Purpose of Western Land Lease 14240 to appropriately record the</p>				

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	biodiversity offset on title and within the lease conditions as a conservation area.				
	Decommissioning Management Plan				
C6	<p>Prior to the commencement of decommissioning, or as otherwise agreed by the Director-General, the Applicant shall prepare (in consultation with the relevant landowner) and implement (following approval) a Decommissioning Management Plan for the project. The Plan shall outline the environmental management practices and procedures that are to be followed during decommissioning, and shall be prepared in consultation with the relevant agencies and in accordance with the Guideline for the Preparation of Environmental Management Plans (Department of Infrastructure, Planning and Natural Resources, 2004) or any replacement guideline. The Plan shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) a description of activities to be undertaken during decommissioning of the project (including staging and scheduling); b) statutory and other obligations the Applicant is required to fulfil during decommissioning, including approval/consents, consultations and agreements required from authorities and other stakeholders under key legislation and policies; c) a description of the roles and responsibilities for relevant employees involved in the decommissioning of the project, including relevant training and induction provisions for ensuring that employees, including contractors and sub-contractors are aware of their environmental and compliance obligations under these conditions of approval; d) an environmental risk analysis to identify the key environmental performance issues associated 				

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	<p>with the decommissioning phase; and</p> <p>e) Details of how environmental performance will be managed and monitored to meet acceptable outcomes, including what actions will be taken to address identified potential adverse environmental impacts (including any impacts arising from the staging of the decommissioning of the project). In particular, the following environmental performance issues shall be addressed in the Plan:</p> <ul style="list-style-type: none"> i. compounds and ancillary facilities management; ii. noise and vibration; iii. traffic and access; iv. soil and water quality and spoil management; v. air quality and dust management; vi. hazardous material and waste management; and vii. Hazard and risk management, including bushfire risk. <p>The Plan shall be submitted for the approval of the Director-General no later than one month prior to the commencement of decommissioning, or as otherwise agreed by the Director-General. The Plan may be prepared in stages, however, decommissioning works shall not commence until written approval has been received from the Director-General. Upon receipt of the Director-General's approval, the Applicant shall provide a copy of the Plan to the relevant landowner as soon as practicable.</p>				
	Decommissioning Road Dilapidation				
C7	Unless otherwise agreed by the Director-General, the Proponent shall commission an independent, qualified person or team to undertake the following in consultation with the relevant road authority:				

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	<p>a) Prior to the commencement of decommissioning of the project, the Proponent shall commission a suitably qualified road infrastructure specialist to assess the condition of all public roads proposed to be traversed by decommissioning traffic associated with the project (including over-mass or over-dimensional vehicles) in consultation with the relevant road authority, and to identify any upgrade requirements to accommodate project traffic for the duration of decommissioning (including culvert, bridge and drainage design; intersection treatments; vehicle turning requirements; and site access), having regard to traffic volumes. The Decommissioning Road Report shall be submitted to the Director-General prior to the commencement of decommissioning works, clearly identifying recommendations made by the relevant road authority and how these have been addressed. The Proponent shall ensure that all upgrade measures identified in the report are implemented to meet the reasonable requirements of the relevant road authority, prior to the commencement of decommissioning.</p> <p>b) Upon determining the haulage route(s) for decommissioning vehicles associated with the project, and prior to decommissioning, an independent and qualified person or team shall undertake a Road Dilapidation Report. The report shall assess the current condition of the road(s) and describe mechanisms to restore any damage that may result due to traffic and transport related to the construction of the project. The Report shall be submitted to the relevant road authority for review prior to the commencement of haulage.</p>				

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	Following completion of decommissioning, a subsequent report shall be prepared to assess any damage that may have resulted from the decommissioning of the project. Measures undertaken to restore or reinstate roads affected by the project shall be undertaken in a timely manner, in accordance with the reasonable requirements of the relevant road authority, and at the full expense of the Proponent.				
	REPORTING				
	Incident Reporting				
C8	The Proponent shall notify, at the earliest opportunity, the Director-General and any other relevant agencies of any incident that has caused, or threatens to cause, material harm to the environment. For any other incident associated with the project, the Proponent shall notify the Director-General and any other relevant agencies as soon as practicable after the Proponent becomes aware of the incident. Within 7 days of the date of the incident, the Proponent shall provide the Director-General and any relevant agencies with a detailed report on the incident, and such further reports as may be requested.	First Solar	Manage and notify Authorities of events causing "Environmental Harm" (AGL) FS to provide AGL with incident details relevant to maintenance, specific incidents to enable AGL to meet statutory obligations Where event is not deemed to be an incident, hazard reports (APP-CMP 20A) will be used for reporting	Reports kept (notes to be kept on D01)	100% compliance to reporting requirements
	Regular Reporting				
C9	The Proponent shall provide regular reporting on the environmental performance of the project on its website, in accordance with the reporting arrangements in any plans or programs approved under the conditions of this approval.	First Solar	Support AGL in keeping Broken Hill Solar Plant website up to date	As required Forms completed as per A2 Above	100% compliance
	COMMUNITY				
	Community Information, Consultation and Involvement				
C10	Subject to reasonable confidentiality requirements, the Proponent shall make all documents required under this approval available for public inspection on request.				
	Provision of Electronic Information				

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C11	<p>Prior to the commencement of construction, the Proponent shall establish a dedicated website or maintain dedicated pages within its existing website for the provision of electronic information associated with the project. The Proponent shall publish and maintain up-to-date information on this website or dedicated pages including, but not necessarily limited to:</p> <ul style="list-style-type: none"> a) the status of the project; b) a copy of this approval and any future modification to this approval; c) a copy of each relevant environmental approval, licence or permit required and obtained in relation to the project; d) a copy of each plan, report, or monitoring program required by this approval; and e) Details of the outcomes of compliance reviews and audits of the project. 				
	Community Information Plan				
C12	<p>Prior to the commencement of construction, the Proponent shall prepare and implement a Community Information Plan which sets out the community communication and consultation processes to be implemented during construction and operation of the project. The Plan shall include but not be limited to:</p> <ul style="list-style-type: none"> a) procedures to inform the local community of planned investigations and construction activities, including blasting works (if any); b) procedures to inform the relevant community of construction traffic routes and any potential disruptions to traffic flows and amenity impacts; c) procedures to consult with local landowners/residents with regard to construction traffic to ensure the safety of livestock and to limit disruption to livestock movements; d) procedures to inform the community where work outside the 				

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	<p>construction hours specified in condition B25, in particular noisy activities, has been approved; and</p> <p>e) Procedures to inform and consult with the Crown Lands Division of the Department of Trade and Investment to rehabilitate impacted land.</p>				
	Complaints Procedure				
C13	<p>Prior to the commencement of construction, the Proponent shall ensure that the following are available for community complaints for the life of the project (including construction and operation) or as otherwise agreed by the Director-General:</p> <p>a) a 24 hour telephone number on which complaints about construction and operational activities at the site may be registered;</p> <p>b) a postal address to which written complaints may be sent; and</p> <p>c) An email address to which electronic complaints may be transmitted.</p> <p>The telephone number, postal address and e-mail address shall be advertised in a newspaper circulating in the local area on at least one occasion prior to the commencement of construction; and at six-monthly intervals during construction and for a period of two years following commencement of operation of the project. These details shall also be provided on the Proponent's internet site required by condition C11. The telephone number, the postal address and the email address shall be displayed on a sign near the entrance to the construction site(s), in a position that is clearly visible to the public.</p>				
C14	The Proponent shall record details of all complaints received through the means listed in condition C13 of this approval in an up-to-date Complaints Register. The Register shall	First Solar			

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	<p>record, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) the date and time, of the complaint; b) the means by which the complaint was made (telephone, mail or email); c) any personal details of the complainant that were provided, or if no details were provided, a note to that effect; d) the nature of the complaint; e) any action(s) taken by the Applicant in relation to the complaint, including timeframes for implementing the action; and f) If no action was taken by the Applicant in relation to the complaint, the reason(s) why no action was taken. <p>The Complaints Register shall be made available for inspection by the Director-General upon request.</p>		FS to support AGL to manage and close-out complaints	Records kept (notes in Form D01)	100% complaints closed out
C15	The Proponent shall provide an initial response to any complaints made in relation to the project during construction or operation within 48 hours of the complaint being made. The response and any subsequent action taken shall be recorded in accordance with condition C14. Any subsequent detailed response or action is to be provided within two weeks.	First Solar	FS to support AGL to manage and close-out complaints	Records kept (notes in Form D01)	100% complaints closed out
	COMPLIANCE				
	Compliance Tracking Program				
C16	<p>Prior to the commencement of construction, the Proponent shall develop and implement a Compliance Tracking Program, to track compliance with the requirements of this approval during the construction and operation of the project and shall include, but not necessarily be limited to:</p> <ul style="list-style-type: none"> a) provisions for periodic reporting of compliance status to the Director-General including at least prior to the commencement of construction of the project, prior to the commencement of operation of the project and within two 	First Solar	Report compliance performance (keep CTP up to date)	Within a 2 years of starting operations (Compliance Tracking Program)	CTP to be maintained up to date

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	<p>years of operation commencement;</p> <p>b) a program for independent environmental auditing in accordance with AS/NZ ISO 19011:2003 - Guidelines for Quality and/or Environmental Management Systems Auditing;</p> <p>c) procedures for rectifying any non-compliance identified during environmental auditing or review of compliance;</p> <p>d) mechanisms for recording environmental incidents and actions taken in response to those incidents;</p> <p>e) provisions for reporting environmental incidents to the Director-General during construction and operation; and</p> <p>f) Provisions for ensuring all employees, contractors and sub-contractors are aware of, and comply with, the conditions of this approval relevant to their respective activities.</p>		<p>Audit of OEMP/conditions of consent</p> <p>Add non-conformances to SCAR</p> <p>Complete incident report and close actions arising</p> <p>Implement the EHS Corrective Actions Register (SCAR)</p> <p>Report incidents deemed to cause material "Environmental Harm</p> <p>Provide induction</p>	<p>Audit every 5 years</p> <p>Monthly Environmental Monitoring</p> <p>Monthly Environmental Monitoring</p> <p>As required</p> <p>Use incident form appendix F</p> <p>Keep induction records</p>	<p>100% compliance to conducting audits and meeting all OEMP requirement</p> <p>100% close out of actions and maintenance of Compliance Tracking Program</p> <p>100% compliance</p> <p>100% compliance</p>
	STATEMENT OF COMMITMENTS				
	Environmental Management				
EM1	The head contractor for the project will have an environmental management system, including a performance and compliance auditing program.				
EM2	A Construction Environmental Management Plan (CEMP) will be prepared and implemented before the start of any construction activities. The CEMP will include details on the Aboriginal Heritage Management Plan, which will be finalised and implemented prior to the commencement of construction of the solar plant.				
EM3	A CEMP and an Operation Environmental Management Plan (OEMP) will be prepared for the site in consultation with the relevant authorities including the NSW Office of Water, OEH and RMS.	First Solar	Implementation of this plan (O & M EHS manual Broken Hill Solar Plant).	Management review eg. Post auditing	100% compliance
	Community Consultation				

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CC1	A community consultation plan will be prepared and implemented. The plan will include a project phone number, e-mail and website for community input, a complaints handling procedure, and procedures for targeted consultation with affected stakeholders.				
	Visual Impacts				
V1	Vegetation removal will be avoided as far as practicable during construction. Any native vegetation near the outside edge of the solar PV plant site boundary will be cordoned off to minimise the risk of accidental disturbance.				
V2	Vehicles will remain on designated paths during construction to avoid degradation of the landscape.				
V3	Construction equipment and infrastructure will be demobilised from site as soon as practicable and all unnecessary project flagging and signage will be removed and disposed of at the completion of construction.				
V4	Plantings of locally indigenous, shrubby vegetation will be provided along the north eastern and part of the north western boundary of the solar PV plant site to mitigate the visual impacts on views to The Pinnacles from the Barrier Highway, Silverton Road and Magazine Way. Plant species will be selected so as not to block views of The Pinnacles.				
V5	Access tracks will be constructed of locally sourced gravel (to the extent required) that matches the colour of the existing site surface as far as practicable.				
V6	Underground cabling will be used where practical. The colour of aboveground ancillary electrical equipment associated with the solar PV plant will be selected to best integrate with the surrounding landscape, with preference given to earthy tones such as pale green and pale brown.				

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V7	In the event that glare from the solar plant is evident from a public road and causes a nuisance, distraction and/or hazard to motorists, the proponent shall immediately implement further glare mitigation measures.				
	Noise Impacts				
N1	Although construction noise impacts are unlikely, identified sensitive receivers in the vicinity of the project site are to be given adequate prior notice of the construction program, kept informed throughout the construction period, and provided with a name and contact number for construction noise information and complaints. Any noise complaints will be dealt with through the standard complaints management procedure identified in the community consultation plan.				
N2	Construction noise and vibration will be minimised as far as practical through the implementation of all feasible and reasonable measures. These measures will be specified within a Construction Noise and Vibration Management Plan (CNVMP). The CNVMP will also include project-specific objectives and protocols for management of construction noise.				
N3	Construction activities will take place during standard working hours (7.00am to 6.00pm Monday to Friday, 8.00am to 1.00pm Saturday and no work on Sunday or public holidays). Any work outside of these hours will be undertaken in accordance with the Interim Construction Noise Guideline (OEH, 2009). The CNVMP will specify protocols for notification of potentially affected receivers for out-of-hours work.				
N4	Where feasible, the proponent will conduct noisy construction activities in consultation with sensitive receivers.				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
N5	Construction equipment and methodologies will be selected in consideration of the need to minimise noise levels where feasible and reasonable.				
	Flora and Fauna				
FF1	Clearing of native vegetation will be restricted to the minimum area necessary for construction. Clearing boundaries will be specified within the CEMP and delineated on site with appropriate boundary or exclusion fencing.				
FF2	Vehicle speed limits will be enforced along internal access roads to minimise the incidence of wildlife mortality from construction and operation vehicles.				
FF3	A buffer zone of 500 metres in radius will be placed around the raptor nest site should it still be present at time of construction. No construction vehicles or personnel will enter this restricted area unless assessing the presence of this species.				
*FF4	The CEMP and the OEMP will include monitoring requirements for the raptor nest located near to the project site. The monitoring requirements will be prepared in consultation with OEH.	First Solar (see footnote)			
FF5	The site CEMP will specify management procedures for vegetation clearing and details for an ecologist to undertake a pre-clearing survey and to be present during all clearing activities.				
FF6	Appropriate waste management practices will be followed to prevent attracting or encouraging feral animals to the site during the construction period.				
FF7	Degraded portions of the site outside of the impact footprint will be restored to the extent required to a) reduce the potential for wind erosion, b) improve opportunities for fauna habitation and movement across the landscape, and c) reduce the risk of weed invasion.				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
FF8	Site restoration and re-vegetation activities will be undertaken during and after construction. All re-vegetation activities will be undertaken using locally endemic native species.				
FF9	Appropriate weed management strategies will be implemented during construction and operation.	First Solar	Physically remove weeds (as required)	Monthly environmental monitoring (by FS) (Form D01)	100% compliance
FF10	<p>An Offset Management Strategy will be developed, including an Offset Management and Rehabilitation Plan, in consultation with OEH. The Strategy is to include:</p> <ul style="list-style-type: none"> • Details on the area of the offset. • Vegetation communities present and their current condition. • Tenure of the land within the offset. • Identification of a mechanism that protects the area in perpetuity. • Identification and costing of management issues, including fencing and weed/feral animal control. • Monitoring details to determine the effectiveness of the management actions. <p>The Offset Management Strategy will be prepared in consultation with the agencies responsible for the management of the Willyama Common and will consider the cumulative impacts of clearing in the Willyama Common for the transmission line.</p>				
Aboriginal Heritage					
IH1	The proponent will consult with Aboriginal stakeholders regarding management of the 14 Aboriginal heritage sites recorded during the site survey. An Aboriginal Heritage Management Plan (AHMP) will be developed in consultation with these stakeholders and OEH to specify how the sites will be protected in-situ, relocated or salvaged.				
IH2	Protocols will be developed to manage and protect Aboriginal artefacts				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	or suspected human remains which may be encountered during construction. These protocols will be specified in the AHMP and may include stopping works in the vicinity of the find, notification of relevant stakeholders and implementation of an appropriate management strategy.				
IH3	All construction personnel will receive training in the management of Aboriginal artefacts and objects, including legal obligations, the application of protocols, and the recognition of artefacts.				
	Traffic and Transport				
TT1	The proponent or its contractor will determine the final details of haulage during detailed transport planning, in consultation with RMS. Road and intersection works will be approved and completed prior to the commencement of construction of the solar plant, and will be at no cost to RMS.				
TT2	The existing site access road off the Barrier Highway and the associated intersection will be upgraded in accordance with RMS standards to accommodate construction traffic and on-going maintenance access.				
TT3	<p>A Traffic Management Plan will be prepared and implemented for the construction, operation and decommissioning phases of the project. The plan will specify:</p> <ul style="list-style-type: none"> • Travel routes and parking areas for construction and operations traffic. • Origin, number, size and frequency of vehicles accessing/exiting the site. • Speed limits and directions of travel on the access roads within the site. • Loads, weights and lengths of haulage and construction related vehicles. • Scheduling of haulage vehicle movements to minimise convoy length and platoons. 				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	<ul style="list-style-type: none"> Traffic control requirements, including requirements for signage, barriers and traffic control personnel. The management and coordination of vehicle movements to the site and measures to limit disruption to other motorists, emergency vehicles and school bus timetables. Details of intersection improvement works in accordance with Austroads Guide to Road Design 2010 and RMS supplements. 				
TT4	A road condition survey will be undertaken before construction to determine the potential impacts on the structural integrity of road infrastructure. The proponent will prepare a Traffic Management Plan in consultation with Broken Hill City Council and the RMS. This plan will set out the requirements for road management and monitoring.				
	Hazard and Risk				
HR1	The proposed transmission line route has been selected to avoid EMF impacts on sensitive receivers.				
HR2	An appropriate Asset Protection Zone will be maintained around the solar PV plant and transmission line.	First Solar	Monitor security fence	Monthly Environmental Monitoring	100% Compliance to monitoring the fence
HR3	Any dangerous goods or hazardous materials kept at the construction site will be stored in a securely bunded area of sufficient containment capacity.	First Solar	Review DG storage and handling	Monthly Environmental Monitoring	100% compliance
HR4	Where dangerous goods or hazardous materials are to be stored on the construction site, an effective spill kit will be available for use at all times. Any accidental spills will be contained and cleaned up immediately.	First Solar	Implement spill response (as required) in relation to maintenance services	Check for spills (monthly environmental and safety inspections, Form)	Zero loss of chemical containment
HR5	Major plant and equipment will be re-fuelled either off site or by a mobile mini-fuel tanker with a spill procedure and spill kit.	First Solar	Implement spill response (as required) in relation to maintenance services	Check for spills	Zero loss of chemical containment

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
HR6	Transport of dangerous goods or hazardous materials will be undertaken by an appropriately licensed contractor.	First Solar	Review DG storage and handling	Consult relevant Licensed contractor	100% compliance
HR7 ⁵	The proponent will develop a Risk Register to identify potential incidents that may occur during construction and the appropriate mitigation procedures.	AGL			
	Water Management (water supply, water quality and waterways)				
WM1	Appropriate erosion and sediment control measures, consistent with the guidelines of the 'Blue Book' (Landcom, 2006), will be established before any clearing, excavation or ground disturbance begins and will be maintained in effective working order until the works have been completed and the affected ground surfaces stabilised.				
WM2	The area of soil exposure/ disturbance will be kept to the minimum amount necessary.				
WM3	Stockpiles of spoil, fill or erodible material will not be placed in or near watercourses or drainage lines.				
WM4	Construction traffic will be confined to existing established roads and access tracks. During construction, the site access junction with the Barrier Highway will be monitored for build-up of soil or debris. Any soil or debris tracked onto the road will be removed at the end of each work day and disposed of appropriately.				
WM5	Disturbed surfaces will be stabilised and restored as soon as possible using appropriate stabilisation and re-vegetation measures. The plants used for site restoration will comprise native species endemic to the project site and suitable for the site conditions, taking into account soils, climate and shading.				

⁵ Noted as applicable in the Staging Report; not relevant to operations.

*Raptor nesting site had been abandoned prior to construction activity commencing so this action is no longer applicable as stated in the Staging Report

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
WM6	To avoid accidental contamination of receiving waterways with chemicals or fuels, the commitments identified for <i>Hazards and risks</i> (above) will be adhered to.	First Solar	Report incidents deemed to cause "Environmental Harm"	Monthly Environmental Monitoring	100% compliance
Land Use					
L1	Nearby landowners or leaseholders will be informed of the construction schedule and scope of works prior to construction.				
L2	The NSW Department of Primary Industries and the affected leaseholder will be consulted regarding alteration of the lease conditions at the site.				
L3	Easements and associated land use restrictions will be identified on property titles.				
L4	Access to properties surrounding the construction site will not be impeded by construction activities.				
L5	The proponent will consult with current mining exploration and extraction licence and lease holders.				
Non-indigenous Heritage					
H1	Protocols will be developed to manage and protect artefacts or suspected human remains which may be encountered during construction. The protocols may, as required, include stopping all works in the vicinity of the find, notification of relevant stakeholders and implementation of an appropriate management strategy.				
H2	All construction personnel will receive training in the management of non-Indigenous relics, including legal obligations, the application of protocols, and the recognition of relics.				
Socio-economic Issues					
S1	Advance notification will be given to nearby residents (including any potentially affected property owners and occupants) on the construction schedule, construction works and access arrangements.				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
	Geology and Soils				
GS1	The commitments identified for Water management above will address the risks of soil erosion. No additional actions are required for geology and soils.				
	Air Quality and Climate				
AQ1	During construction and operation, all exposed surfaces will be monitored for dust generation, and appropriate dust suppression measures, such as watering, revegetation or application of environmentally acceptable dust suppressant chemicals will be implemented as required.	First Solar	Provide air emissions reduction requirements to workers via Induction	Keep induction records (Use materials in Appendix I)	100% Completion of inductions
AQ2	The access road connecting the Barrier Highway road verge to the project site will be constructed with packed gravel as required to minimise dust and soil impacts.				
AQ3	Disturbed surfaces will be stabilised and restored as soon as possible using appropriate stabilisation and re-vegetation measures.				
AQ4	Construction vehicles/machinery will not be left running or idling when not in use.				
AQ5	Construction plant will be fitted with appropriate emission controls and will be maintained to reduce exhaust emissions.				
AQ6	Vehicular loads of spoil and other erodible material will be suitably covered during transport.				
AQ7	No burning of vegetation or waste material will take place on the construction site.				
	Waste Management				
W1	All works will be conducted in accordance with the waste management hierarchy established by the <i>Waste Avoidance and Resource Recovery Act 2001</i> .				
W2	Excavated spoil will be re-used on the project site for fill or landscaping, where possible.				

ID	Requirement ²	Responsible Party (from MSA) ³	OEMP Management Action (Controls) [& OEMP Page Reference]	Monitoring Requirements (incl. forms used) ⁴	KPI/ Target
W3	Native vegetation cleared for the project will be used in site restoration and landscaping or 'wind-rowed' along the edges of the transmission line easement, where possible.				
W4	Excess spoil or green waste which cannot be reused on site will be transported to the Broken Hill City Council Recycling facility.				
W5	Excess materials that are not re-usable or recyclable will be disposed of at the Broken Hill City Council Waste Depot.				
W6	Transport of wastes to recycling or waste disposal facilities will be undertaken by an appropriately licensed waste transporter.				
W7	Waste oils, greases and chemicals generated during construction will be stored in appropriately bunded areas prior to their removal for recycling or disposal.				
W8	Soils contaminated through fuel or chemical spills will be excavated and transported to a licensed waste facility and the resulting excavations will be backfilled with clean soil.				
W9	Invasive weeds will be collected in plastic bags to the extent possible and disposed of at a licensed green waste disposal facility or landfill.				
W10	General wastes will be segregated into recyclable and non-recyclable streams through the provision of appropriate bins on the construction site.				

Appendix D - Job Hazard Analysis

Job Information			
Location/Site:			
Date:	Person in Charge: <i>(Please Print)</i>		
Time:	Signature:		
Company (Contractor):			
WO#/Job Description:			
Review the following items and identify all real or potential hazards associated with this job			
Height	Electrical	Mechanical	Vehicular
<ul style="list-style-type: none"> - Fall protection - Falling or dropped objects - Climbing hazards - Aerial device operation - Ladder use 	<ul style="list-style-type: none"> - Minimum approach distance - Overhead Power Lines - Electrical contact - Arc Flash potential - Adequate grounding in place 	<ul style="list-style-type: none"> - Equipment failure - Tension, loads, weight - Moving/loose parts - Sharp objects - Pinch points 	<ul style="list-style-type: none"> - Traffic conditions - Traffic vests required - Shifting loads - Barricading - Heavy equipment operation
Chemical	Ergonomics	Noise	People
<ul style="list-style-type: none"> - Hazardous Atmosphere - Toxic or poison - Flammable or explosive - Acid or caustic - SDS review 	<ul style="list-style-type: none"> - Slips and trips - Lifting or twisting - Repetitive motion - Strains and sprains - Pinch Points 	<ul style="list-style-type: none"> - Noise levels - Distraction to communications 	<ul style="list-style-type: none"> - Person in charge - Worker qualification/experience - Other work groups involved - Safety of other work groups
Procedures	Equipment	Surroundings	Environmental Considerations
<ul style="list-style-type: none"> - Switching order and LOTO - Three-legged communication - Applicable work rules - Crane requirements: <ul style="list-style-type: none"> - Provide proof of crane annual inspection - Provide license for crane operation and rigging 	<ul style="list-style-type: none"> - Condition of equipment - Condition of tools - Appropriate PPE - Electrical cover-up - Communication method available - Calibration or inspections up to date 	<ul style="list-style-type: none"> - Weather conditions - Insects/Reptiles - Visibility - Temperatures - Signs or Postings 	<ul style="list-style-type: none"> - Confined space - Observe environmental permits - Observe dust control measures - Spills and leaks
Additional hazards identified:			
“We have identified the following potential hazards and the appropriate steps to protect ourselves”			
Critical Job Steps	Identified Hazards	Controls for Safe Work	

Appendix E - Pre Job Briefing and Work Authorization

PART 1 – REQUESTOR	Site:		
	Requestor:	Phone:	Date:
	Requested START Date:	Requested END Date:	WO#:
	Job/Task Description:		
PART 2 – O&M	OSHA requires a pre-job brief to cover the following topics; <u>hazards associated with the job, work procedures, special precautions, energy source control, personal protective equipment, and job changes that require an additional briefing.</u>		
	Pre-Job Brief Conference – perform the following:		
	1. Define and discuss the job scope. (be specific, another briefing must be completed if scope changes during work)		
	2. Define and discuss individual job responsibilities and expectations regarding those responsibilities.		
	3. Discuss energy control measures (Clearances, Switching Orders, LOTO).		
	4. Discuss Job Hazard Analysis (JHA).		
	5. Discuss PPE and EHS Manual requirements for the job.		
	6. Discuss conditions that would require additional job-briefings or stopping the job.		
	7. Identify important Contact or Emergency numbers, ensure this information is available at work site.		
	8. Invite questions or input from work team members.		
9. Ask aloud “What have we missed, what can go wrong with this job and how will we respond if it does?”			
PART 3 – REQUESTOR	The undersigned affirm that they have received the pre-job briefing, understand the scope of work and have had all questions and concerns addressed.		
O&M Work Authorization			
START	Date:	Time:	END Date: Time:
Approval _____		Date: _____	Time _____
(O&M Representative)			
Work Authorization Closure			
Approval _____		Date: _____	Time _____
(O&M Representative)			
Post-Job Review: What went right? What can be improved?			

Appendix F - Incident Notification and Investigation Report Forms

Site Name:		Reported By:		
Company Involved:		FS Company Division: <small>Circle one</small>	EPC	O&M
Describe Area of Occurrence:		Date /Time of Event:		
Summary Title:				

Incident Classification (check one)

Accident (Check one below) – Event that resulted in personal injury, vehicle or equipment damage					
<input type="checkbox"/>	<u>Injury/Illness</u> (check one) Complete Appendix A	<input type="checkbox"/>	<u>Vehicle Damage</u> Complete Appendix B	<input type="checkbox"/>	<u>Equipment Damage</u> Complete Appendix B
	First Aid Only		Damage description:		Damage description:
	OSHA Recordable		\$ estimate		\$ estimate
	Lost Time				
<input type="checkbox"/>	Near Miss – Actions occurring which had the potential, but did not result in personal injury or equipment damage (complete App C)				
<input type="checkbox"/>	Deficient Condition – Undesirable condition found prior to any actions taking place that had the potential to cause personal injury or equipment damage (complete App C)				
<input type="checkbox"/>	Environmental – Actions that resulted in an adverse impact to the environment				

Incident Description (initial information summary)

Immediate Actions Taken

Actions taken:	Person responsible:

Personnel Notified (notify Site Construction/Plant Manager and Site Safety Manger)

Name	Job Title	Date/Time

*Based on the type of event, additional information may be required. **GO TO** the appropriate Appendix and follow instructions.*

Investigation Findings

Provide a bulleted list of the facts obtained during the collection of evidence and from interviews

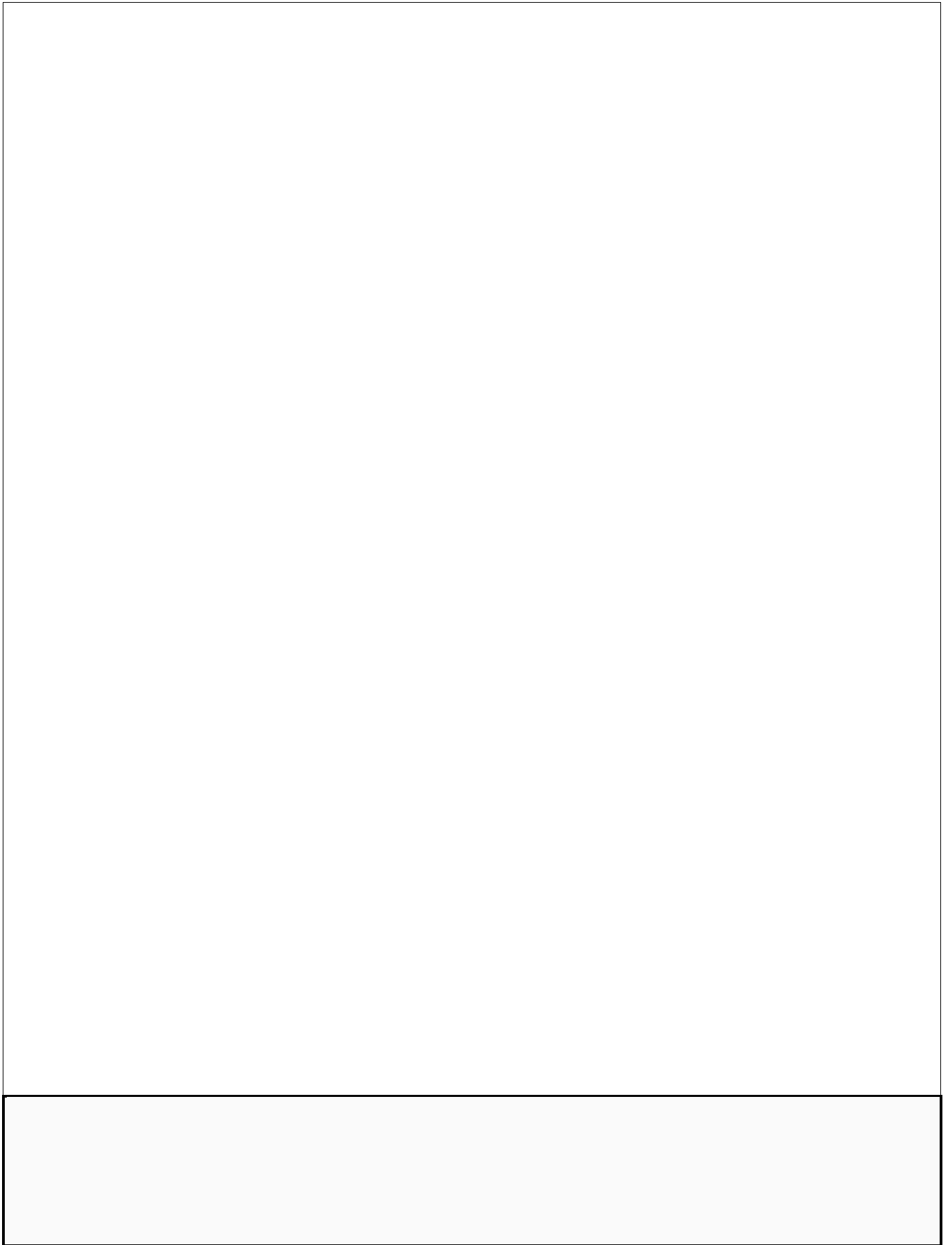




Photo Date:	
Time of Day:	
Location:	
Brief Description:	

Photo Date:	
Time of Day:	
Location:	
Brief Description:	

Direct Cause and Causal Factors:
Utilize TapRoot method in determining causal factors

<p>Causal Factors:</p> <p>Name factor here</p> <p style="padding-left: 40px;">Description</p> <p>Name factor here</p>
--

Description			
Corrective Actions Plan – to prevent reoccurrence			
Corrective Action To Be Taken (include Work Order Number if applicable):	Responsible Person	Due Date	Date Completed
<i>This investigation form is intended to ensure the employee is cared for properly, all steps are followed, causal factors are determined and actions are identified to prevent recurrence. When complete please return to the EHS Department.</i>			
Supervisor (Print/Sign):		Date:	
Site Manager (Print/Sign):		Date:	
Safety (Print/Sign):		Date:	

Ref. Appendix A – Injury Information

IF Personal Injury, THEN complete next section.				
Name of Injured Employee(s)	Job Title	Company Name	Nature of Injury	Activity being performed

Drug and Alcohol Screen (for incidents involving medical treatment)				
Did the employee complete a post-accident Drug and Alcohol Screen?	YES	NO	Date:	
Note: Employee is not to return to work until a negative drug and alcohol result is received.				

Exposure – How the event occurred			Source – Object, substance, person or exposure that directly produced the event or inflicted the injury		
Animal Exposure		Bodily Reaction	Animal		Chemical
Caught In		Contact with Skin	Container		Door
Electrical Contact		Environmental Exposure	Electrical AC		Electrical DC
Explosion		Fall	Food		Furniture
Fire		Inhalation	Insect		Knife
Insect Exposure		Noise Exposure	Ladder		Motor Vehicle
N/A		Object Struck Vehicle	N/A		Noise
Other		Overexertion	Other		Person
Oxygen Deficiency		Repetitive Motion/Ergo	Plant/Vegetation		Repetitive Motion
Struck Against		Struck By	Solar Panel		Tool – Hand
Temperature Extremes		Vehicle Struck Object	Tool – Power		Trencher
Vehicle Struck Vehicle			Walking Surface		Weather
Body Part – Identify the part of the body affected by the injury or illness			Nature of Injury – Identify the physical characteristics of injury or illness		
Ankle		Back	Abrasion/Scratch		Amputation
Buttock		Calf	Animal Bite		Arc Flash Burn
Chest		Ear	Blister		Bruise/Contusion
Elbow		Eye	Chemical Burn		Cold-Related
Face		Finger	Crushing		Dermatitis
Foot		Forearm	Dislocation		Electrical Contact/Shock
Groin		Hand	Fracture		Heart Attack
Head		Hip	Heat-Related		Inflammation
Jaw		Knee	Insect Sting or Bite		Laceration
Leg		Mouth	N/A		Poisoning
Neck		N/A	Puncture		Splinter/Foreign Body
Nose		Shoulder	Sprain/Strain		Stroke
Stomach		Teeth	Thermal Burn		
Thigh		Toes			
Throat		Wrist			

Ref. Appendix B – Equipment/Vehicle Damage Information

IF Equipment Damage, THEN complete next section.				
Location of Accident:				
Description of Damage:				
Driver/Operator's Name:				
Damage Estimate:				
Vehicle Information (if applicable)				
Year	Make	Model	Equipment/License Plate Number	Vehicle/Equipment Owned By?

Drug and Alcohol Screen (for incidents involving vehicle accident)

Did the employee complete a post-accident Drug and Alcohol Screen?	YES	NO	Date:	
Note: Employee is not to return to work until a negative drug and alcohol result is received.				

Sketch the Accident Scene – Provide an illustration showing location of damaged vehicle/equipment in relation to surroundings.

Ref. Appendix C – Near Miss / Deficient Condition Information

IF Near Miss or Deficient Condition, THEN complete next section.

Risk Assessment Matrix (Circle the appropriate letter in the matrix below)

Guide to Risk Score	1. How severely could it hurt someone or how ill could it make someone?	2. How likely is it to be that bad?			
		Very likely Could happen at any time	Likely Could happen sometime	Unlikely Could happen, but very rarely	Very unlikely Could happen, but probably never will
H Urgent/High Priority – act now	Kill or cause permanent or ill health	H	H	H	M
M Medium Priority – action required this week		H	H	M	M/L
M/L Low to Medium Priority – Hazard may not need immediate action		H	M	M/L	L
L Low priority if hazard increases risk action is required		M	M/L	L	L
	Long term illness or serious injury				
	Medical attention and several days off work				
	First aid needed				

What are the risks and potential consequences of the Near Miss or Deficient Condition Identified?

-



Personnel Statement		
Employee's Name:	Site:	
Supervisor:	Incident Location:	
Incident Date:	Craft Classification:	
Incident Time:	Task at time of Incident:	
Length of Time on Project: <input type="checkbox"/> 1 month / <input type="checkbox"/> 3 months / <input type="checkbox"/> 6 months / <input type="checkbox"/> 9 months / <input type="checkbox"/> 1 year		
Description of Incident:		
Name:	Signature:	Date:
Witness:	Signature:	Date:

Appendix G - EHS Manual Receipt and Acknowledgment Form

Environmental Health and Safety

Manual Receipt and Acknowledgment

Please complete this form, remove it from your manual, and return it to your supervisor to file.

I have received a copy of the Example Environmental, Health and Safety (EHS) Manual.

I understand that I am responsible for reading this Manual and understanding the policies and work rules described within it.

I understand that the information contained in this EHS Manual may be added to, deleted or changed by the Company at any time. I understand that neither this EHS Manual nor any other written or verbal communication is intended to, in any way, create a contract of employment.

If I have any questions regarding the content or interpretation of this manual, I will bring them to the attention of my supervisor, Site Supervisor/Designee, or Safety Department.

Name (please print): _____

Signature: _____

Date: _____

Appendix H - Solar Power Plant Monthly Safety Inspection Checklist

Inspection Location:	
Date of Inspection:	Time of Inspection:
Department/Areas Covered:	
Inspection Location:	

Yards and Buildings	SAT	Unsat	Comments	W/O Number
Access				
Structure condition				
Aisles				
Roads				
Work areas				
Housekeeping				
Other				
Floors, Stairways and Walkways	SAT	Unsat	Comments	W/O Number
Condition				
Housekeeping				
Guardrails				
Illumination				
Handrails				
Ladders, Scaffolds, etc.	SAT	Unsat	Comments	W/O Number
Suitability				
Properly used				
Strength				
Properly maintained				
Excavations	SAT	Unsat	Comments	W/O Number
Shored or sloped				
Access				
Barricaded				
Spoilage piles				
Illumination	SAT	Unsat	Comments	W/O Number
Day - Work area				
Night - Work area				

Passageways				
-------------	--	--	--	--

Electrical Equipment	SAT	Unsat	Comments	W/O Number
Condition				
Calibration dates current				
Identification of controls				
Harmful Materials	SAT	Unsat	Comments	W/O Number
Storage				
Handling				
Personal Protective Equipment	SAT	Unsat	Comments	W/O Number
Adequacy				
Availability				
Condition				
Worn as needed				
Machine Guards	SAT	Unsat	Comments	W/O Number
Controls accessible				
Condition				
Lock-out procedures				
Operating procedures				
Controls identified				
Hand Tools	SAT	Unsat	Comments	W/O Number
Condition				
Suitability				
Portable Power Tools	SAT	Unsat	Comments	W/O Number
Condition				
Suitability				
Grounded				
Double insulated				

Materials Handling Equipment	SAT	Unsat	Comments	W/O Number
Condition				
Controls				
Guards				
Records				
Materials Storage	SAT	Unsat	Comments	W/O Number
Stability				
Convenience				
Housekeeping				

First Aid	SAT	Unsat	Comments	W/O Number
Supplies				
Supplies Condition				
Qualified attendant if required				
Fire Prevention	SAT	Unsat	Comments	W/O Number
Equipment				
Exits				
Flammable materials controlled				
Health and Safety Program	SAT	Unsat	Comments	W/O Number
Health and Safety Policy				
Part II of the <i>Code</i> posted				
Site	SAT	Unsat	Comments	W/O Number
Retention Basin				
Storm Drainage				
Environmental	SAT	Unsat	Comments	W/O Number
Universal Waste Stored Properly				
No Universal Waste greater than one year old?				



No Oil Leakage				
Additional Comments:				

Appendix I - Contractor and Visitor Orientation

First Solar Operations and Maintenance: Contractor and Visitor Orientation Form			
Site:		Date:	
Contractor:		Contractor Supervisor:	
Contractor Phone Number:		Supervisor Phone Number:	
Site Supervisor:		Site Supervisor Phone Number:	
Work to be Performed:			
Site Orientation	Discussed	Environmental Requirements	Discussed
General Overview of site using layout drawing		Environmental Requirements	
General Site Hazards		MSDS Required for any Chemicals Required	
Non-Disclosure Agreement (<i>No Photography</i>)		All Waste Shall be removed from the site at the end each day. <i>No trash, rags, etc. can be placed in site waste receptacles.</i>	
Site Speed Limit		Immediately Report Spills	
Assembly Area		Electrical Safety	Discussed
Accident / Injury reporting		Lock Out Required?	
Discuss PPE Requirements for the site: Hard Hat, Study Shoes, Safety Glasses, Gloves		Discuss PV equipment hazards	
PV Array Hazards		Arc-Flash Clothing	
Security requirements		Usage of Heavy Equipment	Discussed
Hearing Protection (As Necessary) in PCS		Spotter Required within the arrays	
Hazardous insects, reptiles and animals		Caution Maneuvering within Array	
Stop all work if safety problem identified		Operator Certifications	
Fire prevention & protection			
Drug / alcohol & firearm			
Confined space entry			
First aid & Blood borne pathogens			

Appendix J - Operations and Maintenance Safety Observation Form

First Solar Operations and Maintenance: Safety Observation Form				
Date:				
Observer Name:			Site Supervisor:	
Work Observed:				
Observers Comments:				
Personal Protective Equipment	Yes	No	NA	Comment
Required Safety eyewear worn (goggles, glasses, with side shields, face shield)?				
Hard Hats Worn and in good condition?				
Gloves worn when appropriate?				
Fire Resistant Clothing worn where required?				
Hearing protection worn in areas where required?				
Appropriate Footwear being worn?				
General Work Site	Yes	No	NA	Comment
Area Clean				
All Doors Closed				
Work area clear of tripping hazards?				
Appropriate hand tools in use?				
Hand tools in good condition?				
No individual manual lifting of objects over 50				
Plant signage in place and in good condition				
Proper safety gear available to employees and visitors / stored in proper area to keep clean and in good condition (glasses not scratched, etc.)				

O&M facilities clean and organized/Safety Information posted. (i.e. emergency contact nos. Bulletins etc.)	
Plant vehicle clean, in good condition, and PMs completed	
Pre-Job Brief/ Job Hazard Analysis Yes No NA	Comment
Was a Pre-job brief and JHA filled out prior to the work commencing?	
Did the whole crew participate in filling out the Pre-job Brief and sign off?	
Were the steps written out and not pre-filled in?	
Are workers following the steps in the JHA?	
Lock Out Yes No NA	Comment
All Personnel have locks in place	
Lock Out forms correctly filled out	
All Personnel understand the boundaries of the Lock Out	
LOTO equipment stored and organized properly and in good condition	
Close Out Yes No NA	Comment
Was Observation discussed with personnel?	

Appendix K - Daily Safety Plan

Location:	Shift:
Name/Title of person conducting Briefing:	Date/Time:
<p>The objective of a good Safety briefing is to communicate an understanding of scope, hazards, and mitigation to enable the safe completion of work throughout the day. This document is intended to be a guide for discuss of general work place hazards and safety topics at the <u>beginning</u> of the day. This does not replace the JHA or Pre-Job Brief for each job.</p> <p><i>Initial each box upon completion of the section discussed. Mark N/A in the comment box if this section is not applicable to this job. REMEMBER TO MAKE THIS BRIEFING AN INTERACTIVE EVENT!</i></p>	
1. Review safety message, lessons learned, or section from Safety Manual	
Comments:	
2. Review Plant Status	
Comments:	
3. Review Planned Work for the Day	
Comments:	
4. Review Site Hazards or Conditions (i.e., temperature outside, crane work, overview of the major jobs going on throughout the day, spiders and snakes, chemical deliveries, etc.)	
Comments:	
5. Discuss Error-Likely Situations. Think of what could go wrong throughout the day? What are some precautions that can be taken to prevent error?	
Comments:	
6. Ask whether or not personnel have any conditions that might impact their performance? (i.e., sick, fatigued, taking medication, outside work injury, ...)	
Comments:	
7. Ask if anyone has questions, concerns, input for the day's work?	
Comments:	

Other things to consider:

- Overview of jobs to be performed throughout the day.
- Procedural requirements associated with work activities.
- Special tools or equipment required for work activities.
- Communication or coordination with other work groups.
- Housekeeping and clean-up provisions.
- Emergency response provisions for work activities.

Reminder: A specific JHA and Pre-Job Brief are required prior to each job performed throughout the day.

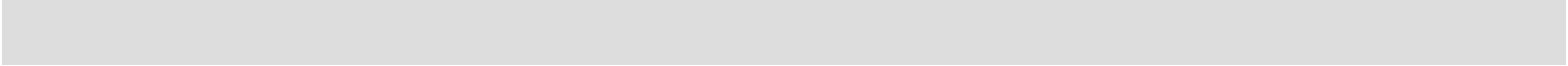
Print Name	Signature

How severely could it hurt someone or how ill could it make someone?	How likely is it to occur?			
	Very Likely (VL) Could happen any time	Likely (L) Could happen sometime	Unlikely (U) Could happen but very rarely	Very unlikely (VU) Could happen, but probably never will
Critical: Fatal or permanent disability	H	H	H	M
Major: Long term illness or serious injury	H	H	M	M
Moderate: Medical attention and several days off work	H	M	M	L
	M	M	L	L

Appendix L - Risk Register and Procedure

Project/Site & Scope:			Revision No.
Project No.			Internal Ref:
Prepared by: (*Note only First Solar employees that have been trained in the First Solar Risk Management Training Module are permitted to complete an assessment.)			
Name:	Signature:	Position:	Date of Risk Mgt Training*
Reviewed and approved by:			
Name:	Signature:	Position	Date:
Date Risk Assessment prepared:		Date work to be commenced:	
Actions before work commences:			

Number	Hazard/Issue	Key Activities	Cause	Effect/Impact	Existing Controls	Effectiveness of Existing Controls	Current Risk Rating						Risk Treatment Type	Risk Mitigation	Responsible Person	First Solar	Residual Risk Rating						Comments	
							Consequence		Likelihood		Rating						Consequence		Likelihood		Rating			
						Score (1-5); 5 very effective																		
1																								
2																								
3																								
4																								
5																								



6																				
7																				

Appendix M - Energy Isolation Permit

PART A: PERMIT DETAILS: (completed by Permit Acceptor and Permit Issuer)													
Project Name:						Project No:							
JHA Reference No:						Permit to Work No:							
Work Location:													
Start Date:	/	/	Start Time:	:	Finish Date:	/	/	Finish Time:	:				
Services Identified on Plans	<input type="checkbox"/>	Electric Power Cables	<input type="checkbox"/>	Gas Pipes	<input type="checkbox"/>	Fuel / Oil (tanks, pipes)	<input type="checkbox"/>	Communication Cables / Fibre Optic / Telstra	<input type="checkbox"/>	Air / Water Pipes	<input type="checkbox"/>	Drains & Sewerage Pipes	
Details of others services identified:													
Details of safe approach distance (s) / Exclusion Zones			Mechanical Plant		m		Mechanical Hand Tools		m		Hand Tools		m
Define Scope of Works to be undertaken (As per the referenced JHA & attached Plans / drawings / sketches):													
PART B: WORK CONTROLS : Tick as required ✓ (completed by Permit Issuer)													
	Yes	N/A		Yes	N/A		Yes	N/A		Yes	N/A		
Electrical Isolations completed	<input type="checkbox"/>	<input type="checkbox"/>	All buried and concealed services identified and marked	<input type="checkbox"/>	<input type="checkbox"/>	Proximity to other buildings, roads, and structures	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Digging equipment – flat edge blade only (no teeth)	<input type="checkbox"/>	<input type="checkbox"/>	Hazardous material / contaminated soils identified	<input type="checkbox"/>	<input type="checkbox"/>	Solid Barricading in place where required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Hand digging only	<input type="checkbox"/>	<input type="checkbox"/>	Have all necessary trial holes / trenches been excavated	<input type="checkbox"/>	<input type="checkbox"/>	Safe access / egress required (ramps / ladders / cross-over's)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Work area clearly defined and latest drawings consulted	<input type="checkbox"/>	<input type="checkbox"/>	Existing services protected	<input type="checkbox"/>	<input type="checkbox"/>	Safety Observer required	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
All applicable drawings/sketches and plans attached	<input type="checkbox"/>	<input type="checkbox"/>	Warning signage displayed	<input type="checkbox"/>	<input type="checkbox"/>	Competent person available for regular inspections	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

Dial before dig information sought and attached	<input type="checkbox"/>	<input type="checkbox"/>	Dewatering	<input type="checkbox"/>	<input type="checkbox"/>	Emergency Response and Rescue Plan completed and approved	<input type="checkbox"/>	<input type="checkbox"/>	
Area scanned for services using penetrating radar	<input type="checkbox"/>	<input type="checkbox"/>	Shoring / Shielding required	<input type="checkbox"/>	<input type="checkbox"/>	Safe means of access and egress to excavation provided	<input type="checkbox"/>	<input type="checkbox"/>	
Vehicle and Traffic Management Plans in place	<input type="checkbox"/>	<input type="checkbox"/>	Sloping (Bench / Batter) required	<input type="checkbox"/>	<input type="checkbox"/>	Associated Permit Certificates identified & completed	<input type="checkbox"/>	<input type="checkbox"/>	
Further site specific precautions to be taken:									
PPE Requirements – Tick as required and detail any other specific requirements.									
<input type="checkbox"/>	Safety Helmet	<input type="checkbox"/>	Gloves	<input type="checkbox"/>	Safety Boots	<input type="checkbox"/>	Eye Protection	<input type="checkbox"/>	Respiratory Protection
<input type="checkbox"/>	Coveralls	<input type="checkbox"/>	High Vis Vest	<input type="checkbox"/>	Ear Protection	<input type="checkbox"/>	Fall Arrest System	<input type="checkbox"/>	Other
Clearance by Geotechnical Professional (Required for Excavation deeper than 1.5m)							Yes	No	
Shoring / Shielding required							<input type="checkbox"/>	<input type="checkbox"/>	
Entry of personnel allowed							<input type="checkbox"/>	<input type="checkbox"/>	
I confirm I have inspected the excavation and declare the ground conditions safe for entry:									
Geotechnical / Civil Eng. Professional Name:		Signature:		Date:	/ /	Time: (24 hr.):	:		
PART C: PERMIT ISSUE (completed by Permit Issuer)									
I confirm that all work control measures made to ensure the safety of those working under this PTW are in place. The work area has been checked and it is safe for work to proceed under the conditions stated in this PTW.									
Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:		
PART D: PERMIT ACCEPTANCE (completed by Permit Acceptor)									
I understand and accept the conditions and precautions detailed above. I shall implement all controls and ensure all personnel have been instructed									
Permit Acceptor:		Signature:		Date:	/ /	Time: (24 hr.):	:		
PART E: PERMIT CANCELLATION (completed by Permit Acceptor)									
I confirm that all work for which this PTW was issued has been completed. All personal safety control precautions have been removed including all safety devices and isolations and the workplace has been inspected and left in a clean and safe condition									
Permit Acceptor:		Signature:		Date:	/ /	Time (24 hr.):	:		
PART F: PERMIT CLOSURE (completed by Permit Issuer)									
I confirm that all work for which this PTW was issued has been completed and verify this PTW has been cancelled by the Permit Acceptor.									
Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:		

Appendix N - Excavation Permit

PART A: GENERAL PERMIT DETAILS: (completed by Permit Acceptor and Permit Issuer)							
Project Name:				Project No:			
JHA Reference No:				Permit to Work No:			
Work Location:							
This written authority is valid	/	/	Start Time:	:	Finish Date:	/	/
						Finish Time:	:
Define Scope of Works to be undertaken (as per the referenced JHA):							

PART B: ENTRY REQUIREMENTS: (completed by Permit Issuer)				6. Personal Protective Equipment (PPE)		
Will hot work be conducted? <i>(Attach permit)</i>	Yes	No		The following PPE will be used		
Confined space identification & assessment checklist available?	Yes	No		Communication equipment	Yes	No
				Eye protection	Yes	No
Hazard ID reviewed & acceptable?	Yes	No		Footwear	Yes	No
SWMS reviewed & acceptable?	Yes	No		Hand protection	Yes	No
3. Isolation of confined space				Harness/lifelines	Yes	No
				Head protection	Yes	No
				Hearing protection	Yes	No
				Protective clothing	Yes	No
Has the space been isolated from				Respiratory protection	Yes	No
Automatic fire extinguisher systems?	N/A	Yes	No	Other	Yes	No
Hydraulic/electric/gas/power?	N/A	Yes	No			
Mechanical/electrical drives?	N/A	Yes	No			
Sludge/deposits/waste?	N/A	Yes	No			
Water/gas/steam/chemicals?	N/A	Yes	No			
Have isolation points been locked out?	N/A	Yes	No	7. Other precautions		
4. Confined space atmosphere				All persons are trained	Yes	No
				Communications procedure in place	Yes	No

Has the atmosphere been tested?	Yes	No	Emergency rescue equipment	Yes	No
Test results			Smoking forbidden	Yes	No
Test date		Test time	Traffic control plan required	Yes	No
NATA calibration period for gas detector			Fall arrest device in place	Yes	No
Oxygen (O ₂) (19.5% - 23.5%)			Ventilation required	Yes	No
Hydrogen sulphide (H ₂ S) (<10ppm)			Warning notices/barricades	Yes	No
Flammable gas (<5%LEL)			Other	Yes	No
Carbon dioxide (CO ₂) (5000ppm)					
Carbon monoxide (CO) (30ppm)			8. Emergency response		
Other atmospheric contaminants <i>(List)</i>			Emergency plan/ procedure (JHA)	Yes	No
			Emergency contact	Name/telephone number	
5. Entry conditions					
With supplied air breathing apparatus	Yes	No	9. Stand-by personnel/requirements		
Without respiratory protection	Yes	No			
With escape unit	Yes	No			
Temperatures not extreme for work	Yes	No			
Drinkable water available	Yes	No			
Continuous atmospheric monitoring required (Sufficient battery life for duration)	Yes	No			
Self-rescuer <i>(List use by date if applicable)</i>	Yes	No			

10. Chemicals to be used <small>(List)</small>	Haz Sub		SDS		11. Safe entry		
		Yes	No	Yes	No	Is the confined space safe for entry?	Yes
	Yes	No	Yes	No			
	Yes	No	Yes	No	12. Confined space team		
	Yes	No	Yes	No	Have all people entering the confined space been given a SWMS introduction?	Yes	No
	Yes	No	Yes	No			
	Yes	No	Yes	No	Are they fit for work?	Yes	No
	Yes	No	Yes	No	Are they trained and equipped?	Yes	No

PART C: PERMIT ISSUE (completed by Permit Issuer)							
The control measures and precautions appropriate for the safe entry and execution of the work in the confined space has been implemented. The persons required to work in the confined space have been told about and understand the requirements of this written authority.							
Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:
PART D: PERMIT ACCEPTANCE (completed by Permit Acceptor)							
I understand and accept the conditions and precautions detailed above. I shall implement all controls and ensure all personnel have been instructed.							
Permit Acceptor:		Signature:		Date:	/ /	Time: (24 hr.):	:

Appendix O - Confined Space Permit

I have been told about and understand the control measures and precautions to be followed with the entry and work in the confined space.

ENTRY			EXIT		
Name	Date	Time	Name	Date	Time

PART E: PERMIT CANCELLATION (completed by Permit Acceptor)							
I confirm that all work for which this PTW was issued has been completed, all safety devices and isolations have been removed and the workplace has been inspected and left in a clean and safe condition							
Permit Acceptor:		Signature		Date:	/ /	Time (24 hr.):	:
PART F: PERMIT CLOSURE (completed by Permit Issuer)							
I confirm that all work for which this PTW was issued has been completed and verify this PTW has been cancelled by the Permit Acceptor.							
Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:

Appendix P - Hot Works Permit

Note: HOT WORK PERMIT					
PERMIT IS TO BE ISSUED PRIOR TO DOING HOTWORK: E.g., Welding, Oxy Acetylene Work, Grinding etc.					
PART A: PERMIT DETAILS: (completed by Permit Acceptor and Permit Issuer)					
Job description:					
Job location:					
Permit Commencement Date:					
Permit Completion Date:					
Subcontractor requiring work permit: SFL Name:					
PART B: WORK CONTROL MEASURES: (completed by Permit Acceptor and Permit Issuer)					
<p>Examples:</p> <p>Appropriate type and suitable number of fire extinguishers available within 10m</p> <p>Dedicated fire watch in place (person watching work if required)</p> <p>SWMS and Emergency Response Plan in place and understood</p> <p>Flammable materials removed where possible</p> <p>Fire resistant protection blankets in place</p>					
<p>Special Conditions/Instructions:</p> <p>20 liters of water with quick pressure release (open end hose)</p> <p>Water soak hot works area prior to works</p> <p>Fire Watch to remain in place for 30 mins after completing hot works</p> <p>All hot works to cease at least 45mins before leaving site</p> <p>All equipment pre-start checks completed before commencing hot works</p> <p>Flashback safety valves installed on all gas lines at the gauges</p>					
FIRE WATCHER	Yes	<input checked="" type="checkbox"/>	No o	<input type="checkbox"/>	If dedicated Fire Watch is required, checks to be carried during works and 30 minutes after completion of work
Name of Fire Watcher	Signature		Date	Time On (24 hr.)	Time Off (24 hr.)

			:	:
--	--	--	---	---

PART C: PERMIT ISSUE (completed by Permit Issuer)

I confirm that all work control measures made to ensure the safety of those working under this PTW are in place. The work area has been checked and it is safe for work to proceed under the conditions stated in this PTW.

Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:
----------------	--	------------	--	-------	-----	-----------------	---

PART D: PERMIT ACCEPTANCE (completed by Permit Acceptor)

I understand and accept the conditions and precautions detailed above. I shall implement all controls and ensure all personnel have been instructed.

Permit Acceptor:		Signature:		Date:	/ /	Time: (24 hr.):	:
------------------	--	------------	--	-------	-----	-----------------	---

PART E: PERMIT CANCELLATION (completed by Permit Acceptor)

I confirm that all work for which this PTW was issued has been completed, all safety devices and isolations have been removed and the workplace has been inspected and left in a clean and safe condition.

Permit Acceptor:		Signature:		Date:	/ /	Time (24 hr.):	:
------------------	--	------------	--	-------	-----	----------------	---

PART F: PERMIT CLOSURE (completed by Permit Issuer)

I confirm that all work for which this PTW was issued has been completed and verify this PTW has been cancelled by the Permit Acceptor. All personal safety control precautions have been removed including all safety devices and isolations and the workplace has been inspected and left in a clean and safe condition.

Permit Issuer:		Signature:		Date:	/ /	Time: (24 hr.):	:
----------------	--	------------	--	-------	-----	-----------------	---

PART G: WORKER SIGN-ON			
Print Name	Signature	Print Name	Signature

Appendix Q - Weekly Environmental Inspection Form D-01

This form is to be completed weekly or immediately following significant rainfall (>15mm rainfall event)

Week Ending: _____ Date: _____
 Inspection Completed by: _____ Weather Conditions: _____

Form - D01: Weekly Inspection Checklist

This form is to be completed weekly or immediately following significant rainfall (>15mm rainfall event)

Week Ending: _____ Date: _____

Inspection Completed by: _____

Section A - General	Yes	No	N / A
A1 Site is litter free			
A2 Any noxious weed growth evident			
A3 All work being confined to designated areas			
A4 Are rehabilitation areas healthy			
A5 Were there any incidents in the past week			
A6 Were any complaints received in the past week			
B1 Are all work areas clearly marked and defined			
B2 Are all temporary and permanent drains operation effectively (i.e. not eroding, discharging to stable areas)			
B3 Are all sediment traps functioning			
B4 Do any sediment traps need cleaning			
B5 Are all sediment fences in a good state of repair			
B6 Are action undertaken after the last inspection adequate and effective			
B7 Are any additional sediment control measures required			
B7 Waterways free from pollution and works more than 40m from a water course			



Section C – Non Conformance and Corrective Actions

Non Conformance

Reference (e.g. A1)	Non Conformance	Corrective Action Required	Expected Completion

Additional Non-Conformance Information

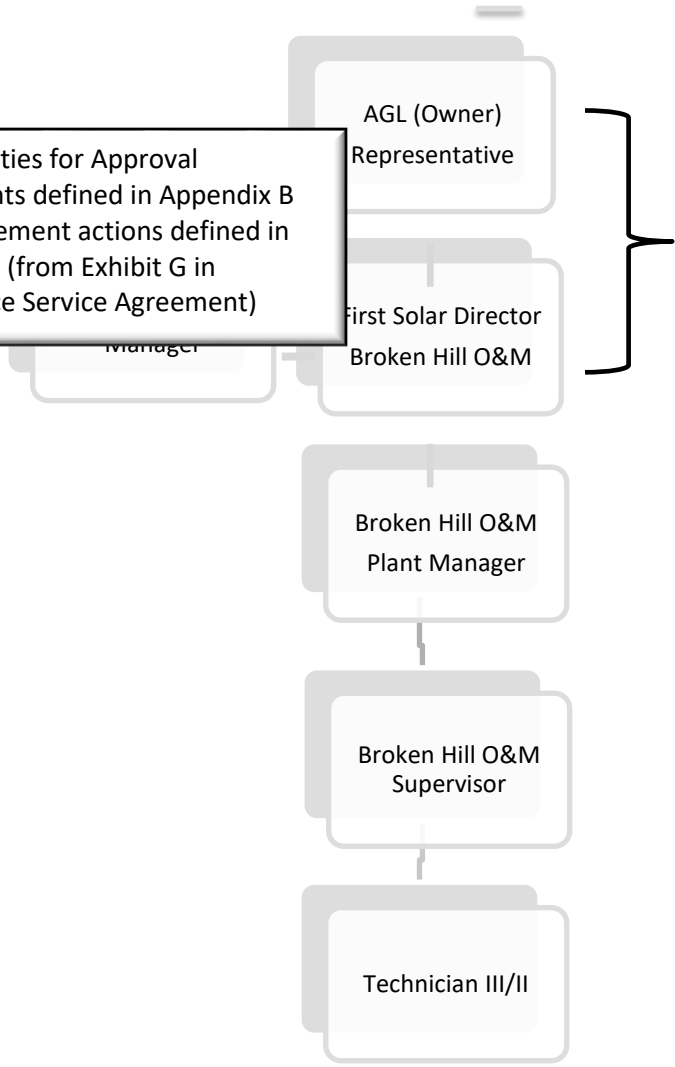
Outstanding Corrective Actions

Item	Action Required	First Identified (W/E)	Expected Completion (W/E)

Signed: _____

Appendix R - Organisational Chart

Responsibilities for Approval Requirements defined in Appendix B And management actions defined in Appendix C. (from Exhibit G in Maintenance Service Agreement)



Appendix S – Working at Height



WORKING AT HEIGHT PERMIT

Location:	Contractor:	Supervisor:
Competent work crew Sign on:		
Date Required:	Time (from	Time (to):
The task has been reviewed and there is no alternative to persons Working at Height?		
Requested by:		Accepted by:
_____	_____	_____
<i>Name</i>	<i>Signature</i>	<i>Name</i> <i>Signature</i>
Job Description and Location (Be specific)		

10.1 WORKING AT HEIGHT CHECKLIST – Before work starts

Items to check	Yes / No
1. It is not possible to carry out the work without working at height?	
2. The fall arrest system has been set up checked by a competent person?	
3. The fall arrest system is safe and effective?	
4. Persons to work at height have been trained and are competent to do so?	
5. The area below to job site is barricaded to protect others?	
6. All open areas have been hard barricaded to prevent others accessing the area?	
7. There is a work plan in place for the work at height?	
8. All fall arrest equipment has been inspected and is in good and operable condition?	
9. A rescue plan and equipment in place to rescue persons suspended at height?	

CONDITIONS

1. This permit to Work at Height must be approved before work can commence at height.
2. This permit to Work at Height is only valid for the job described and detailed on it.
3. The SWMS for the task must be attached to the permit. **SWMS / JHA No.**



AUTHORISATION

The work at height described and detailed on this permit is approved to go ahead as per the details on this permit.	
HSE Advisor	_____
	<i>Name</i>
	<i>Signature</i>
Area Supervisor	_____
	<i>Name</i>
	<i>Signature</i>

10.2 WORKING AT HEIGHT CHECKLIST – After work is completed

Items to check	Yes / No
1. The workplace has been made safe?	
2. All barricades around the below the work have been removed?	
3. The fall arrest system has been dismantled?	
4. All fall arrest equipment has been inspected and is in good condition?	

NB. The closed out permit is to be returned to the OHS Dept. for filing.

Appendix T – General Hazard Identification and Risk Assessment

OHSW2

GENERAL HAZARD IDENTIFICATION AND RISK ASSESSMENT

Workplace :	Division/Portfolio:
Risk Assessor (s):	Assessment Date:
Specific Task Related to Hazard :	

Section 1.	Hazards: Potential Damaging Energies			
Work Environment		Radiation		Biological
Adequate access	<input type="checkbox"/>	Ionizing radiation	<input type="checkbox"/>	Microbiological
Air-conditioning	<input type="checkbox"/>	Non-ionizing radiation	<input type="checkbox"/>	Animal tissue / Fluids
Confined spaces	<input type="checkbox"/>			Human tissue / Fluids
Lighting	<input type="checkbox"/>	Kinetic Energy		Allergenic
Mental stress	<input type="checkbox"/>	The body hitting objects	<input type="checkbox"/>	Other Biological
Ergonomics	<input type="checkbox"/>	Hit by moving objects	<input type="checkbox"/>	
		Explosion	<input type="checkbox"/>	Chemical / Hazardous Substance
Temperature / Weather Effects		Penetrating objects	<input type="checkbox"/>	Liquids

Heat	<input type="checkbox"/>	Vibration	<input type="checkbox"/>	Fumes	<input type="checkbox"/>
Cold	<input type="checkbox"/>	Acoustic / Noise	<input type="checkbox"/>	Gases	<input type="checkbox"/>
Rain / Flood	<input type="checkbox"/>			Vapours / Mists	<input type="checkbox"/>
Wind	<input type="checkbox"/>	Energy		Solids	<input type="checkbox"/>
Fire	<input type="checkbox"/>	Electrical	<input type="checkbox"/>		
Lightning	<input type="checkbox"/>	Gravity	<input type="checkbox"/>	Manual Handling	
Smoke	<input type="checkbox"/>	Falls / Trips / Slips	<input type="checkbox"/>	Lifting / Carrying	<input type="checkbox"/>
		Falling objects	<input type="checkbox"/>	Pushing / Pulling	<input type="checkbox"/>
Health and Security				Posture	<input type="checkbox"/>
Food	<input type="checkbox"/>	Mechanical		Reaching/ Overstretching	<input type="checkbox"/>
Poisoning or Contamination	<input type="checkbox"/>	Vehicles	<input type="checkbox"/>	Repetitive movement	<input type="checkbox"/>
Intoxication	<input type="checkbox"/>	Mobile and Fixed plant	<input type="checkbox"/>	Bending	<input type="checkbox"/>
Dehydration	<input type="checkbox"/>	Powered Equipment	<input type="checkbox"/>		
Violence	<input type="checkbox"/>	Non-Powered Equipment	<input type="checkbox"/>	Miscellaneous	
Working alone	<input type="checkbox"/>			Working at heights	<input type="checkbox"/>
Bites / Stings	<input type="checkbox"/>			Cuts / lacerations	<input type="checkbox"/>

Section 2. – Risk Assessment (List identified hazards and detail measures taken to address the hazards) This form is to be expanded electronically or additional information attached where required

Controls to be considered from the following hierarchy of control

1. Elimination (is it necessary?)
2. Substitution
3. Isolation (restrict access)
4. Administration (training, SOP's,)
5. Personal Protective Equipment (PPE) e.g. (gloves, leather apron, coveralls, respirator) etc.

4. Engineering (guarding, redesign)

Identified Hazards Exposure	Risk assessment		Risk Rating	Required Controls	Controls Implemented	
	Consequences	Likelihood			Yes <input type="checkbox"/>	No <input type="checkbox"/>
Restricted access under panel/array					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Leaking HVAC refrigerant					Yes <input type="checkbox"/>	No <input type="checkbox"/>
HVAC failure Plant Communications equipment					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Working confined spaces PCS and PVCS/IS vaults					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Night time maintenance activity on SF					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Night time driving (to and from site)					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Site Office Seating Ergonomics					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Excessive Heat – Heat Stroke					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Excessive Heat – Contact Burns					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Skin – Sun Burn					Yes <input type="checkbox"/>	No <input type="checkbox"/>

PV Panel replacements during high winds					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Cyclone (storm) Risk					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Lightning Strike					Yes <input type="checkbox"/>	No <input type="checkbox"/>
On-site or nears site fires					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Smoke inhalation					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Poisoning or Contamination					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Intoxication					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Dehydration					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Working alone					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Bites / Stings					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Ionization arcing					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Body hitting objects					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Moving Objects					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Explosion					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Penetrating objects					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Acoustic noise					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Electrical contact					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Falls, Trips & Slips					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Falling Object					Yes <input type="checkbox"/>	No <input type="checkbox"/>

Vehicles					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Mobile/fixed plant					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Powered equipment					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Non powered equipment					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Animal tissue / sheep on site					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Human tissue / accident or injury					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Allergens Is this within our scope? Do we have any known allergens stored/used on site?					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Transformer oil spill					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Fumes from burning / burnt equipment					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Gases from overheated materials / burnt insulation					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Lifting / carrying					Yes <input type="checkbox"/>	No <input type="checkbox"/>

Pushing / pulling					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Posture					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Reaching overstretching					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Repetitive movement					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Bending					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Working at heights					Yes <input type="checkbox"/>	No <input type="checkbox"/>
Cuts & abrasions					Yes <input type="checkbox"/>	No <input type="checkbox"/>
					Yes <input type="checkbox"/>	No <input type="checkbox"/>

Section 3 – Implementation Plan				
Environmental Hazard (and Risk Rating)	Control Option	Resources	Person(s) Responsible	Proposed Implementation date
Explosion (H)	Activate emergency response and preparedness plan.	Emergency Response and Preparedness Procedure	O&M Supervisor	August 2014
On-site or near site fires (H)	If safe, evacuate site immediately and notify emergency services	Bushfire management plan	O&M Supervisor	August 2014
Vehicles (M)	Administration, appropriate on site briefing/training	Induction/Environmental Awareness Training	O&M Supervisor	August 2014
Cyclone (Storm) Risk (M)	Evacuate site on notification of a Cyclone (storm) event being imminent	Daily pre-start; Responsibilities defined in Emergency Response and Preparedness Procedure	O&M Supervisor	August 2014
Night time driving (to and from site) (M)	Consider non urgent work during daytime, but when equipment is made safe	All personnel trained in fauna interaction & reporting; Access to external animal welfare agents	O&M Supervisor; Technicians	August 2014
Gases from overheated materials / burnt insulation (M)	Avoid the contaminated area until gases clear or until breathing apparatus / ventilation is available	Biodiversity offset management plan (to offset greenhouse gas emissions)	O&M Supervisor	August 2014
Poisoning or Contamination (M)	Hazardous chemicals and dangerous goods risk assessment conducted	Emergency Response and Preparedness Procedure; Training in spill response	O&M Supervisor	August 2014
PV Panel replacements during high winds (L)	Eliminate – No panel replacement to be carried out when wind speeds exceeds 15 km/hr.	Training of technicians in HAZMAT procedures & reporting	O&M Supervisor; Technicians	August 2014
Lightning Strike (L)	No work activity during lightning	Bushfire management plan	O&M Supervisor	August 2014

	events, return to indoor locations			
Transformer oil spill (L)	Ensure contained in vault until pumped into sealable container for removal from site.	Emergency Response and Preparedness Procedure; Training in spill response	O&M Supervisor	August 2014
Acoustic noise (L)	Appropriate PPE ear protection	Noise monitoring	O&M Supervisor	August 2014
Animal tissue / sheep on site (VL)	Organise removal of tissue using appropriate PPE before it becomes degraded	Daily Inspection; Hazard Forms; Weekly environmental inspections (of fencing)	O&M Supervisor	August 2014
Leaking HVAC refrigerant (VL)	HVAC PM in place	Preventative Maintenance Checklist (PM); Technician with PM VOC	O&M Supervisor; Technicians	August 2014

Section 4 – Consultation			
Have relevant staff been consulted in relation to this risk assessment? Yes <input type="checkbox"/> No <input type="checkbox"/> If yes, indicate who was consulted.			
Name:	Date:	Name:	Date:

Section 5 – Comments and Endorsements		
Name:	Signature:	Date:
Assessment Approval: I am satisfied that the risks are not significant and/or adequately controlled and that resources required will be provided.		
Name:	Signature:	Date:
Position Title:		

Risk Assessment Matrix

PRIORITISING HAZARDS AND RISKS

HAZARD CONSEQUENCE RATING TABLE

Catastrophic	5	Hazard may cause death or total loss of one or more bodily functions (eg. loss of: or use an arm, an eye, huge financial loss etc).
Major	4	Hazard may cause severe injury, illness or permanent partial loss of one or more bodily functions (eg. noise induced hearing loss), or serious property damage, loss of production capability.
Moderate	3	Hazard may cause a reportable incident i.e. an incident that results in the employee being unable to undertake their normal duties for 7 days or more, or significant property damage, high financial loss.
Minor	2	Hazard may cause minor injury, illness or property damage, first aid treatment only or no injury, low financial loss.
Insignificant	1	Hazard may only cause very minor injury, illness or property damage, no first aid treatment or no injury, very low financial loss.

LIKELIHOOD CRITERIA - RATING TABLE

Almost Certain	5	Exposure to hazard almost certain to occur.
Probable	4	Exposure to hazard likely to occur frequently.
Possible	3	Exposure to hazard likely to occur but not frequently.

Unlikely	2	Exposure to hazard unlikely to occur.
Rare	1	Exposure to hazard so unlikely that it can be assumed that it will not happen.

RISK PRIORITY TABLE

Risk Priority	Definitions Of Priority	Suggested Time Frame
<i>Critical</i>	Situation critical, stop work immediately or consider cessation of work process Must be fixed today, consider short term and/or long term actions.	<i>Now</i>
<i>High</i>	Is very important, the proposed task or process activity must not proceed. Steps must be taken to lower the risk level to as low as reasonable practicable using the hierarchy of risk controls	<i>Today</i>
Medium	Is important, must be fixed this week, consider short term and/or long term actions.	This Week
Low Very Low	Is still important but can be dealt with through scheduled maintenance or similar type programming. However, if solution is quick and easy then fix it today. Review and/or manage by routine procedures.	This Month

Appendix U - A Regulated Waste Register

FORM-U01: Regulated Waste Register

Date	Type of Waste (place tick in appropriate column)					Quantity ¹		Tick one end use				Removal Organisation
	Mixed Putrescible	Mixed recycling	Cardboard	Mixed Non-putrescible	Liquid	Weight (kg)	Volume (m ³)	Recycled	Reused	Given	Disposed (this includes landfill and sewerage)	

Appendix V - Groundcover Monitoring Record Form H-01

FORM H01 – Groundcover Monitoring Record

Date	Area	Seed Mix Applied	Photo Reference

FORM G02 – Photo Point Record

Date	Photo Point	Photo File Reference

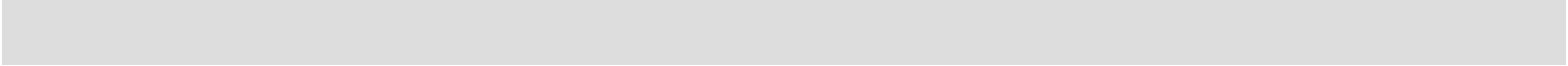
Appendix W - Weed Management Activities and Controls Form IO1

FORM IO1 – Weed Management Activities and Controls

Date	Location	Weed Species	Control Method		Herbicide Used	Who By	Onsite Conditions
			Physical	Chemical			

Appendix X - Safety Corrective Actions Register (SCAR)

APP CMP: 24A - Safety Corrective Action Register (SCAR)									
Id No.	Date	Hazard	Category (Safety, Health or Environment)	Risk Rating (H,M, L)	Corrective Action Required	HoC (Elim, Sub, Iso, Engin, Admin, PPE)	Responsible Person	Due Date	Date Closed



FS.ABH1.EHS.Rev9

Final Audit Report

2021-03-17

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