

# **OPERATIONS & MAINTENANCE**



# TRAFFIC MANAGEMENT PLAN

Suntop Solar Farm

681 Suntop Rd, Suntop, NSW 2820

Document Number	Description
AUOM-STSF-PLN-005	Traffic Management Plan – Suntop Solar Farm (STSF)

# **Revision Status**

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#### Canadian Solar O&M (Australia)





### AUOM-STSF-PLN-005 Traffic Management Plan

#### Introduction 1.

This Traffic Management Plan (TMP) applies to the Suntop Solar Farm (the project). This TMP has been prepared by Canadian Solar O&M (Australia) Pty Ltd (AUOM) and reflects traffic management as applicable to the operations stage of the development.

This current TMP supersedes the Construction stage TMP (CTMP), which was fully implemented during 2020 to 2021. The Suntop Solar Farm site had adhered to all the CTMP requirements during construction phase of the Development and has been a fully operational site since December 2021 and it is deemed to be under the O&M requirements since the handover date.

#### 1.1. **Preamble**

Prior to the start of the construction phase, The Dubbo Council had released the Suntop Solar Farm Preconstruction Compliance Report (Document 20200703 Final V2 Solar Farm) thus approving the road works associated with the construction of the solar farm.

Suntop Road has two access points in accordance with Austroads Guide to Road Design and in line with The Dubbo Council's requirements. These access roads were made to be the types that are referred to as Rural Property Access and they catered for the largest vehicle that accesses the site during construction. These two site access roads were completed between the 3<sup>rd</sup> of December 2019 and the 21<sup>st</sup> of September and the 7<sup>th</sup> of October 2020. At the same time the necessary road upgrades were also completed prior to September 2020 and these also were approved by NSW Transport (TfNSW).

There was an additional report produced in relation to the dilapidation of the roads pre-construction and the repairs that were carried out to rectify the issues as part of the construction (refer to B. Bouygues Construction Australia: Dilapidation Report, Suntop Solar 2022 June).

At the completion of the construction of Suntop Solar Farm, The Dubbo Council had provided the approval of the intersection road upgrades, that were carried out at Renshaw McGirr Way and Suntop Road (Document 200825 Dubbo Council Intersection Approval).

RFI-77804959 Applicant Response, submitted to the Department of Planning, Housing and Infrastructure (DPHI) on 28th November 2024 provides documentary evidence that the following construction stage traffic management requirements of the Consolidated (Development) Consent were satisfactorily met:

- Over-Dimensional and Heavy Vehicle Restrictions (Schedule 3, Condition 2),
- Designated Over-Dimensional and Heavy Vehicle Access Route (Schedule 3, Conditions 3 & 4),
- Road Upgrades (Schedule 3, Condition 5),
- Site Access (Schedule 3, Condition 6),
- Operating Conditions (Schedule 3, Condition 7),
- Traffic Management Plan (Schedule 3, Condition 8),



#### 2. Site Overview

The internal roads were constructed in accordance with the approved plans, which required all the roads within the solar farm to be "all weatherproof" (for more information refer to Vantage Independent Environmental Audit Report: Appendix C page 6 and CSI-SU-BY-CV-DOC-2804-IFC-Basis of Design Report Internal Road: 4 Design Requirements).

During the operation phase, it was determined that the capacity of the roadside Drainage Network has not been reduced as a result of the solar farm's construction (please refer to this report for more information: CSI-SI-BY-CV-DOC-2803-IFC-Stormwater Management: Report Hydrologic and Hydraulic Analysis and CSI-SU-BY-CV-GDW-2003-ASB Roads and Drains Drawings).

The Suntop Solar Farm was constructed to be able to provide sufficient on-site parking spaces next to the O&M Building for permanent staff and also for occasional visitors. Parking on the public road network is not permitted for operations phase activities. (Please refer to Figure 1 below for Site Location and Figure 2 for detail of O&M building and parking).

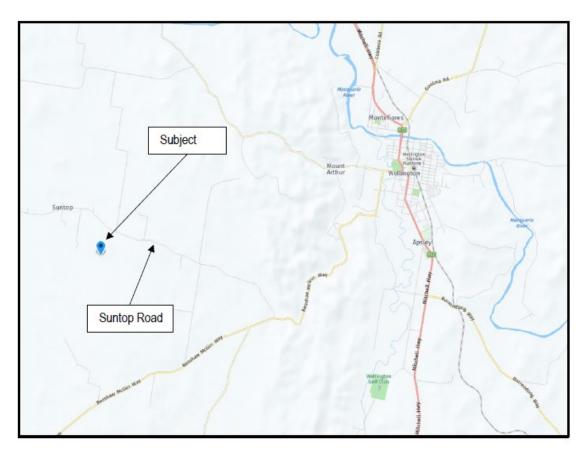


Figure 1: Site Location and Road Network





Figure 2: Google image of site showing O&M Building and surroundings.

# 3. Purpose and Objective

#### 3.1. Purpose

The purpose of this plan is to describe how traffic, transport and access impacts are minimised, within the scope permitted by the Development Approval, during the operation of the Suntop Solar Farm, which will be accessed by all personnel (employees, contractors, and deliveries).

#### 3.2. Objective

The key objective of this TMP is to ensure that traffic, transport, and access impacts are minimised, and activities undertaken are within the scope permitted by the planning approval, including:

- Complying with Conditions of Approval (COAs)
- Minimising traffic delays
- Maintaining satisfactory property access
- Minimising disturbance to the receiving environment, and
- Ensuring safety of employees, contractors, and the public.

### 4. Reference Documents

This document is to be read in conjunction with the following site-specific documents:

Document	Designation
Safety Management Plan	AUOM-STSF-PLN-001
Environment Management Plan AUOM-STSF-PLN-002	
Quality Management Plan	AUOM-STSF-PLN-003
Site Management Plan	AUOM-STSF-PLN-004
*Traffic Management Plan*	*AUOM-STSF-PLN-005*
Emergency Management Plan	AUOM-STSF-PLN-006
Bush Fire Management Plan AUOM-STSF-PLN-007	
Services Management Plan	AUOM-STSF-PLN-008

<sup>\*</sup>This document



# Legislative Requirements

#### 5.1. Relevant Legislation and Guidelines

Legislation and Guidelines relevant to Traffic Management for this site include:

Regulatory and Other Requirements	Description and Relevance
	The Roads Act 1993 (Roads Act) provides a framework for the
	management of roads in NSW. It provides for the classification
	of roads and the declaration of the Roads and Maritime
Roads Act 1993 (NSW)	Services (RMS) and other public authorities for both classified
	and unclassified roads. The Roads Act confers functions on
	RMS and other roads authorities and allows distribution of
	such functions between RMS and other roads authorities.
	LEP). Under zoning electricity generating works or solar energy
	systems are prohibited, however under the State
State Environmental Planning Policy	Environmental Planning Policy (Infrastructure) 2007 (ISEPP),
(Infrastructure) 2007	development of electricity generation works, or solar energy
	systems is permissible on any land with consent within a
	'prescribed rural zone'.
	Australian Standards AS 1742.3:2009 - Manual of uniform
AS1742.3 (Manual of Uniform Traffic	traffic control, is a nationally agreed standard document
Control Devices	outlining the use of traffic control devices on the road network
	and has been adopted by all jurisdictions.

#### 5.2. Site Induction

AUOM will provide site inductions for all visitors that will include but not be limited to the following:

- Entry and Exit points
- Temporary traffic controls, including detours and signage
- Responding to any emergency including emergency vehicle access
- As part of the project induction process, AUOM have a Safe Driving Program that includes the following:
  - o Defines vehicle and haulage routes
  - Vehicle Maintenance requirements
  - o Licences and training required, and
  - o Traveling speed limits for public roads and for the operational site.
- Outlines that all drivers must be:
  - o Trained and competent
  - o Medically fit
  - o Well rested
  - Observant of all speed limits, signs, etc
  - Not under the influence of drugs or alcohol.
- Load requirements including restraints
- The use of mobile phones is prohibited whilst driving
- Reversing vehicles and spotter responsibilities
- Code of Conduct for drivers (Work Instructions: Site Visit Protocol BMWI-012-028 and Vehicle Usage Policy BMWI-012-074)
- AUOM disciplinary procedures include processes for management of employees and subcontractors that do not adhere to the driver's code of conduct and the Vehicle Usage Policy above.



### 6. Operations Traffic Activities

#### 6.1. Traffic Movement Forecast

During the operations phase of the project there is expected to be the following traffic movements:

- Permanent Site based technician's vehicles x 3 (4x4 Ute)
- Delivery of maintenance equipment will be limited to a maximum of five heavy vehicles movements per day on the public road
- Visitors' vehicles

#### 6.2. Traffic Safety Mitigation Measures

The operational phase of the Suntop Solar Farm will result in a minimal increase in the volume of traffic movement surrounding the Site. The primary objective of the traffic management is to ensure safe and efficient movement of operation-related vehicles onto, off and around the site, whilst minimising disruptions/impacts and maintaining a safe environment for vehicular and pedestrian traffic external to the site. Please refer to Figure 3 for heavy vehicle route and for site access points for transport routes below.

In addition to comply; a vehicle tracking register has been implemented on site in order to accurately record the number of heavy vehicles entering and leaving site daily.
 During the operation phase of the solar farm, it is not anticipated that there will be any over-dimensional vehicles used at the site.

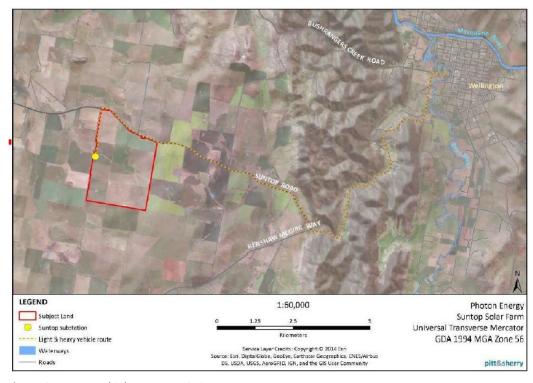


Figure 3: Heavy Vehicle Route at STSF



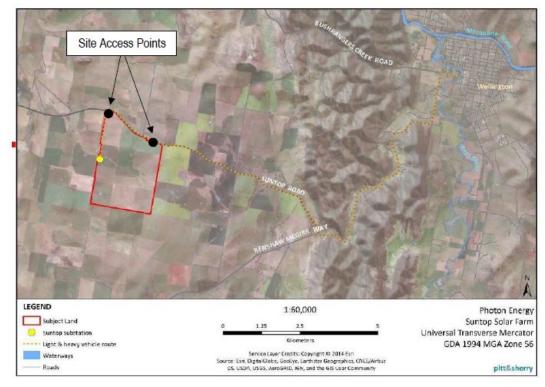


Figure 4: Access Points for Transport Routes at STSF

Following are the identified Traffic Control measures to be implemented throughout the project's operational phase:

#### **Traffic and Transport Mitigation Measures**

Action	Responsibility	Timing
The on-site Traffic Control Plan (TCP) will be developed and outline but not limited to the below:  • A Traffic Flow Diagram • Speed Limits (onsite 20km/h) • Signs of the size and type that comply with Australian Standards • Radio Channels to be used onsite • The requirement for all vehicles to give way to the right • Larger vehicles will have right of way • Laydown areas will always be clockwise direction • All vehicles will always require flashing beacons on whilst driving • Site vehicles an audible reversing alarm • Reverse Parking only in parking areas • Emergency Access Plans All AUOM employees and Subcontractors must comply with the approved Traffic Control Plan.	Associate Director O&M	Prior to commencement of operation
Details for delivery and storage arrangements to be in place, including clearly defined loading and unloading areas (which are to be separated from vehicle access and pedestrian routes), crane pick areas, distribution routes and methods, and designated storage areas. Any deviation from these procedures, including changing the designated loading and unloading areas, must be planned, and conducted in accordance with the requirements for High-Risk Activities, with any changes to loading/unloading areas or protocols adequately communicated and signposted,	AUOM	Prior to commencement of operation
Controls to be in place to ensure vehicles are appropriately braked, chocked, or stabilised before any unloading or loading occurs,	AUOM, Subcontractors	Project Duration





#### AUOM-STSF-PLN-005 Traffic Management Plan

Action	Responsibility	Timing
Controls to manage reversing are to be in place. Where reversing needs to occur, suitable controls include the use of pedestrian exclusion zones, spotters to direct drivers and visibility aids fitted on vehicles, e.g., reversing sensors and mirror systems,	AUOM, Subcontractors	Project Duration
High visibility reflective clothing to be provided for all persons working adjacent to vehicles and onsite traffic routes.	All onsite Personnel	Project Duration
All Traffic Management requirements to be communicated through the AUOM On-site Induction.	Lead Technician	Prior to commencement of operation
Regular checks of the Traffic Flow Diagram to be completed to ensure changes are documented.	Lead Technician	Project Duration

#### 6.3. Site Deliveries

All site entries will be via the Suntop Rd. The delivery vehicles will only deliver the materials and will not be allowed to park permanently onsite at any time. The following process will be implemented onsite to mitigate the impact of deliveries:

- The truck is escorted or arrives at the onsite reception/security area
- Upon arrival onsite, the truck is placed in an offload queue for that product being delivered
- The on-site representative will take custody of the truck from the reception/security area
- After receiving custody of a truck, the onsite representative collaborates with the appropriate offload representative and keeps the truck driver updated with their advancement in the queue
- When ready, the onsite representative leads the truck to an offload point that may be in the staging area or a particular block, and hands over custody to the offload representative
- The offload representative manages the unloading process as the team conducts product receiving procedures in coordination with the AUOM Team
- Receiving operations include inspection and documentation of product conditions, logging quantities and reporting damage
- Upon completion of the offload process and proper disposition of the materials, the offload representative closes out the shipment with the truck driver and retains the proper records
- All vehicles are loaded and unloaded on site, and enter and leave the site in a forward direction; and
- Vehicles leaving the site are in a reasonably clean condition and do not result in dirt being tracked onto the public road network.
- The onsite representative is also notified of completion and leads the truck offsite to confirm safe exit from the site.

#### 6.4. Emergency Vehicle Access

Emergency vehicle access for the project will be provided via the designated site entry from Suntop Rd. A separate Emergency Management Plan has been produced to manage emergencies onsite.



#### 7. Traffic Control Plans

AUOM prohibits working in or immediately adjacent to publicly accessible roads. Where persons are required to work near traffic the work shall be in accordance with a Traffic Control Plan (TCP) developed and certified by a competent person holding a prescribed qualification that will be issued ad hoc when needed.

The implementation of a TCP shall be:

- Verified pre-shift, during shift and at the close of each shift by a suitably qualified traffic controller
- Audited by a qualified person as required by the relevant road regulatory authority

Risk associated with traffic interface shall be managed in accordance with the following provisions:

- A risk assessment shall be conducted to identify the risks of traffic movement and risk controls selected to eliminate/substitute, or where impractical, minimise the impact of the traffic on the site and the activities that could impact the traffic
- A Traffic Management Plan (consistent with AS 1742.3) must be developed by a BYCA Engineer for all project or facilities involving interaction with traffic and approved by the relevant local authority
- Traffic Management Plans will identify the controls necessary to separate site personnel from traffic such as
  physical barriers and minimum separation distances. Plans must be based on known, not posted speeds of
  passing traffic
- Traffic Management Planning must ensure:
  - o crash attenuators are considered as a preferred control for work in live traffic
  - all personnel requiring access to live traffic areas are identified (including members of the public)
  - o physical barriers comply, be inscribed with AS 3845 and be installed in accordance with manufacturers recommendations
  - o signage for temporary road works should include afterhours emergency numbers
  - all workers around traffic have been trained and deemed competent to work with live traffic risks and controls
  - o project compound, work area access and egress are identified with clear signposting, traffic management and demarcated as required
  - o where practicable the design of site compounds includes a dedicated parking zone of suitable gradient to prevent the risk of vehicle roll away
  - o movement of plant and traffic is in a forward direction where practicable
- Each traffic management plan should include information on:
  - o traffic access, direction, speed, parking, restricted areas, areas for loading, unloading and storage
  - hazards associated with the interactions of light vehicles, heavy vehicles and pedestrian and minimisation of any damage to property or equipment
  - o process to be used to access and escort emergency vehicles within the site
- Where practicable light vehicles shall be separated from heavy vehicles via use of vehicular barriers, or suitable windrows/earth berms half the height of the largest vehicle's wheels
- Where plant or vehicles traverse along the top of a batter, the batters exposed edge shall be protected by a windrow/earth berm half the height of the largest vehicle's wheels
- Effective communication systems must be implemented to manage the interface between mobile plant, light vehicles and other persons controlling ground operations
- Negotiations with relevant authorities including the client, local traffic authorities and police, must be undertaken on road projects to reduce speed limits to as low as reasonably practicable. Traffic control at work sites on public thoroughfares shall be approved by local authorities and council.



#### 8. Document Review

A review of this manual will be conducted in line with contractual and standard maintenance requirements, after a traffic incident, or when business deliverables change.

#### 8.1. Revision of Strategies, Plans and Programs

Notification must be submitted within 1 month if any modifications to these conditions are to be made, to the: *NSW Planning and Environment Department* (compliance@planning.nsw.gov.au). The notification must identify the development (including the development application number and the name of the development) and set out the location and nature of the incident.

The submission must include the following:

- Update the strategies, plans or programs prior to carrying out any upgrading or decommissioning activities on site;
- review and, if necessary, revise the strategies, plans or programs required under the final TMP consent to the satisfaction of the Secretary within 1 month of the:
  - submission of an incident report under condition 4 of Schedule 4;
  - submission of an audit report under condition 6 of Schedule 4; or
  - any modification to the conditions of this consent.

Furthermore, in case the Applicant becomes aware of any non-compliance contrary to the accepted conditions; the Applicant must notify the Department (as above) within 7 days of any non-compliance:

- setting out the condition of consent that the development is non-compliant with, the way in which it does not comply and the reasons for the noncompliance (if known) and
- what actions have been done, or will be, undertaken to address the noncompliance.

In addition in case there is an incident [defined in the Consolidated (Development) Consent] the Applicant must notify the Department (as above) immediately setting out the nature and location of the incident.

# 9. Record & Data Requirements

Record Name	Storage Location	Owner	Retention	Access Restrictions
AUOM-STSF-PLN-005 Traffic Management Plan	SharePoint	Associate Director O&M	3 years	Associate Director O&M



# Appendix A – Definitions

Acronym/Term	Meaning
EPC	Engineering, Procurement and Construction
СТМР	Construction Traffic Management Plan
TMP	Traffic Management Plan
DPE	NSW Department of Planning and Environment
LGA	Local Government Area
RMS	NSW Roads and Maritime Services
TCAWS	Traffic Control at Work Sites Manual
TCP	Traffic Control Plan
STSF	Suntop Solar Farm