

## MEMO

<b>Project</b>	Burrundulla Mini Sustainable Energy Park		
<b>To</b>	Mishka Talent, Portfolio Manager	<b>Project Number</b>	MUD1C-3C
<b>From</b>	Sam Rorke, Solar Farm Development Manager	<b>Pages</b>	3
<b>Date</b>	21/07/2022		
<b>Subject</b>	Water Management Plan		

### Scope

The scope of this memo is to outline the proposed use of water during the different project phases of the proposed solar farm development known as “Burrundulla Mini Sustainable Energy Park” (Midwestern Regional Council DA0288/2019) at Lot 6, DP1069441 and to confirm the arrangements in place to ensure the availability of water for these purposes.

### Requirements for Water

#### Bushfire Management

The provision of a temporary 20,000 litre Static Water Supply within proximity of the development site is proposed prior to the commencement of any construction works. This temporary supply will allow for the replenishment of attending fire services which will facilitate the rapid suppression of any potential ignitions. The temporary supply may be removed once the bushfire management plans within a bushfire assessment report are implemented.

#### Vegetation Watering

The landscaping plan involves the establishment and maintenance of an estimated 1,800 plants<sup>1</sup>. The water rates identified in the Transport for NSW (TfNSW) QA Specification R179 Landscape Planting<sup>2</sup> has been used as a guide for plant establishment and monitoring period watering.

This specification has been developed for use with roadworks and bridgeworks contracts let by TfNSW or by local councils in NSW. The type of landscape areas proposed for this project are similar to what is commonly found in roadside environments across regional NSW. That is, the planting of

<sup>1</sup> Assumptions provided by Iris Visual Planning + Design:

10-metre-wide planting = 2.4 plant per linear metre \* 600m = 1,440 plants

Scattered trees = 350 plants

Total plants required = approx. 1,800

<sup>2</sup> Transport for NSW, QA Specification R179, Edition 1, Revision 4, June 2020.

large areas of vegetation, comprising native species, that will be subject to a two-year establishment and monitoring period, and intended to be self-sustaining in the long term.

According to the watering rates per plant ("forest tube") specified in TfNSW QA Specification R179 of 5 litres on planting, 20 litres per week for 12 weeks, then 10 litres per fortnight thereafter, this results in a conservative estimate of 0.8 megalitres for the entire site in the first year, then decreasing water requirements in subsequent years.

## General

In addition to bushfire management and vegetation watering, water may be required for a variety of purposes, including but not limited to:

- Any *ad hoc* construction requirements, e.g. spraying access tracks to minimise dust;
- Possible sanitation and drinking water requirements of workers during construction phase;
- Cleaning of panels and any other solar farm infrastructure as required from time to time, during operational phase.

## Availability of Water

ITP Development Pty Ltd ("ITPD") has confirmed with the owners of the property known as 3B Sydney Road, Burrundulla, which includes Lot 6/1069441, that:

- There is currently no reticulated water supply to Lot 6.
- The owners have a licence to take water from the Cudgegong River to supply the property, with the following annual allocations:
  - General Security: 148 megalitres;
  - High Security: 48 megalitres;
  - Stock & Domestic: 8 megalitres.
- There is no restriction on the purposes for which the General Security allocation can be used, and it is envisaged that this allocation will be well in excess of what is required for the proposed solar farm project, even accounting for existing water use needs from that supply source.
- The pumping site is on the river, north of Lot 6. Two pumps are installed, which deliver into a 200 mm main which travels south to a point about 400m south of the highway.
- The larger of the two pumps is used when irrigating, the smaller is controlled by an automatic pressure sensitised mechanism to keep the main permanently pressurised.
- From the main there are a number of outlets which supply water for the Burrundulla Wines cellar door (on Lot 5, DP1069441), the two cottages behind the cellar door, and stock watering troughs.
- The submain which supplies the cellar door could be extended to any part of Lot 6 as required.

ITPD has an agreement in place with the landholder to take such water as is reasonably required throughout the construction and operational life of the solar farm project.

## Reticulation Options

The exact arrangements for water supply are to be developed during the detailed design stage of the project. These arrangements will address the conditions of consent issued by Council (and will be assessed by the Principal Certifying Authority (PCA)) and therefore the detailed design stage will occur once the DA consent has been granted. However, it is envisaged that either of the following two options could be feasible solutions, subject to the requirements of any bushfire assessment report and the location of any required offtake points:

### Option 1

The shortest route from the existing supply to the cellar door complex to the western edge of Lot 6 involves only the installation of a polythene pipe. This is estimated to involve half a day's work for two people and 100m of pipe.

### Option 2

Connection to a more central point of Lot 6 from an existing submain and hydrant situated further to the south is estimated to involve a full day's work for two people and the laying of 300m of polythene pipe.

Neither of the above options would require consent from any authority.