

High Usage Offtake from a Solar Equipped Water Facility

1. Introduction

In order to ensure that Councils community water facilities are run as cost effectively as possible, a number of community water facilities are equipped with solar pumping equipment. The benefits of solar pumping equipment are that the ongoing costs are minimal, the drawbacks are that solar pumping equipment only works during daylight hours.

2. How is the Offtake Allowance Rate Calculated?

As a general rule, solar pumping can expect to deliver 8 hours of power per day. When determining the excess capacity of the facility, the calculations are done on the basis that the water is pumped in an 8 hour period, but delivered to the offtake holder over a 24 hour period. Therefore, the offtake rate is calculated at a rate of one third of the flow rate of the pump.

Example – Regular Offtake

A bore has an excess capacity of 5 litres per second and 4 landholders have requested an offtake.

	Value	Comment
Excess Capacity	5 litres per second	
Number of landholders	4	
Available water (per landholder)	1.25 litres/second	36000 litres in 8 hours
Offtake rate	0.41 litres/second	35,424 litres in 24 hours

3. Additional Extraction Outside of Daylight Hours

A landholder may decide that the amount of water delivered in accordance with the 8 hour calculation is insufficient for their needs, in this case, the offtake holder may elect to enter into an agreement that allows access to the water facility over the 24 hour period (a **High Usage** offtake agreement).

When determining the available water for a High Usage offtake, consideration must be given to the impact on higher ranked usage AND the usage by regular offtake holders at the 8 hour rate.

The exact method of regulating the offtake is determined on a case by case basis, considering factors such as amount of available water, the needs of other users and the infrastructure configuration at the site.

The supply for a High Usage offtake may be regulated by any method determined by Council to ensure equitable access to water by all stakeholders. This may include the following:

- Nominating the height of an offtake from the storage
- Nominating the time over which the water can be taken
- Nominating the maximum flow rate per second of the offtake.
- Nominating the diameter of the offtake pipe

When calculating a High Usage offtake agreement, the method of offtake from the facility is selected to ensure that the total take of water does not negatively impact on other users of the facility.

Where a landholder has sought to obtain a High Usage offtake agreement, the take of water is calculated on the basis that the facility is capable of delivering water for 24 hours per day. In the case of a High Usage offtake, the water can be taken at the rate of which it is available. For example

Example – High Usage Offtake

A bore has an excess capacity of 5 litres per second and 4 landholders have requested an offtake.

	Value	Comment
Excess Capacity	5 litres per second	
Number of landholders	4	
Available water (per landholder)	1.25 litres/second	108,000 litres in 24 hours
Offtake rate	1.25 litres/second	10,8000 litres in 24 hours

High Usage offtakes contain the condition that the offtake holder **MUST** ensure that the water level in the storage facility at the completion of the period of additional extraction is equal to, or greater than the level of water in the storage at commencement.

Pumping of water extracted outside of regular hours of operation is pumped at the High Usage offtake holders cost.

Should multiple High Usage offtakes be sought, offtake holders may decide to share the additional cost of extraction from the facility. However, such an agreement is a private agreement between the High Usage offtake holders and is separate to the conditions of the offtake agreement with Council.

4. What is Allowed Under a High Usage Offtake?

The offtake agreement is an approval to take a specified amount of water from a specific point at the facility. A High Usage offtake allows for extraction of additional water outside of the regular hours of operation of the facility.

The entitlements and conditions of a High Usage offtake remain largely the same as a Regular offtake agreement, other than an increase in the rate of water that can be extracted and the period of time the extraction can occur.

Landholders are responsible to the provision of the power source (mains power or generator etc.) including the installation, maintenance and operation costs for extracting water outside of the regular hours of operation of the facility.

5. How Much Does a High Usage Offtake Cost?

Given that the access to additional water from the facility is obtained by access to the facility over 24 hours, rather than 8, the Additional Extraction offtake is calculated at three times the Regular offtake agreement rate.

Fee for the 2019/20 financial year

	Value	Comment
Regular offtake	\$401.65	
High Usage offtake	\$1204.95	3 x “regular” rate

This additional fee is calculated on recovering the additional wear and tear on the pumping equipment, and compensating for the reduced life of the equipment as a result.

6. Further Information

Interested parties should contact the Maranoa Regional Council Rural Lands Services team on 1300 007 662 or via email land.management@maranoa.qld.gov.au.