

Appendix Eight – Agricultural Impact Assessment

**ADVERTISED
PLAN**

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**



ADVERTISED PLAN



AGRICULTURAL IMPACT ASSESSMENT

Hamilton Solar and Storage Project

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright





Page Street Services Pty Ltd

Page Street Services Pty Ltd

ABN 16 122 863 003

PO Box 481

Albert Park Vic 3206

t +61 418 503 239

12th August 2021

Department of Environment, Land, Water and Planning
Level 8, 8 Nicholson Street,
East Melbourne, Victoria 3002

Tetris Energy – Hamilton Solar and Storage project

Application Ref.:

Introduction

Page Street Services has been engaged by Tetris Energy Pty Ltd to provide an Agricultural Impact Assessment in relation to a proposed 4.99MWac Solar and storage project at Monivae Subdivision Road, Hamilton (Southern Grampians LGA)

Scope of works

The investigation is to describe the existing agricultural use in both a local and regional context and to consider the impact of the solar and storage development on the existing agricultural use of the property and identify any potential impacts the proposal is likely to on future agricultural land uses. The assessment has been undertaken as outlined in the *Victorian Solar Energy Facilities Design and Development Guidelines July 2019*.

Capability

Page Street Services is a Victorian based consultancy established in 2006 specialising in strategic planning, agriculture, and other land use advisory services. The principal agricultural advisor has over 40 years' experience with qualifications in agricultural science and economics.

Yours Sincerely

Matthew Boland (B Agric Sc)

Principal Consultant

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



General description of the region

The property is situated in the northern part of Victorian Volcanic Plains according to the Primary Production Landscapes of Victoria, just over seven kilometres south of Hamilton.

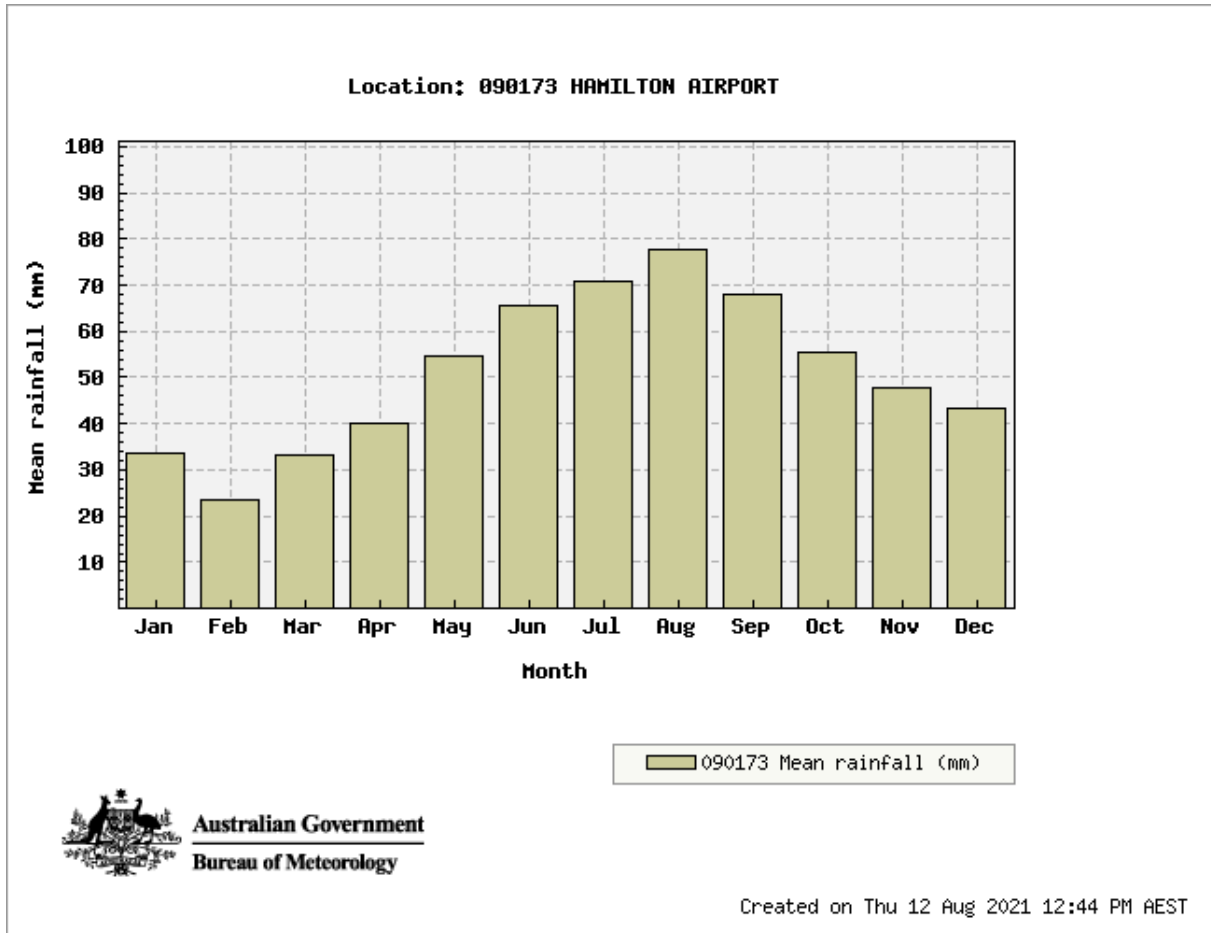
Most of the land in this region (over 80 per cent) has been developed for agriculture, predominately dryland pasture based farming systems. The main enterprises are sheep for wool and fat lambs and cattle breeding and fattening. Cropping is becoming more common.

There is a Mediterranean climate with cool and wet winters and hotter and drier summers.

	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
Mean rainfall (mm)	33.6	23.7	33.3	40.2	54.8	65.5	70.9	77.7	67.8	55.3	47.9	43.4	616.8
<u>Mean number of days of rain ≥ 1 mm</u>	4.8	3.7	5.1	6.9	9.9	11.6	13.7	14.6	11.7	9.7	7.3	6.6	105.6
<u>Mean maximum temperature (°C)</u>	26.7	26.7	24.2	19.9	15.6	12.9	12.1	13.3	15.3	18.0	21.1	24.2	19.2

ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



According to the available climate projection data, the region will become hotter and drier.

Soils in the region are commonly Chromosols having clay subsoils which are not strongly acid (i.e. pH >5.5 in water) and are non-sodic. Their surface texture ranges from loam to fine sandy loam over a clay subsoil.

ADVERTISED PLAN

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**



Proposed site Monivae Subdivision Road

Executive summary

The allocation of 15 hectares of this 75 hectare property to a solar development will have no significant impact on the agricultural capability of the property or surrounding properties.

The existing pasture-based grazing use and cropping will be able to continue on the remainder of the property.

The proposed solar development will not impact on farm infrastructure. The development will be screened with vegetation to minimize visual impact.

Table 1 assesses the impact of the development against the criteria for the protection of agricultural land under the Victoria Planning Provisions (14.01-1S) Protection of agricultural land.



Photograph 1: Closely grazed pasture with some surface water evident

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



Location and characteristics of the property

Located approximately seven kilometres south of Hamilton the property is 75 hectares of which up to 15 hectares is proposed for the solar development.

The property is flat to undulating and fully cleared. It is sown to pasture and used for grazing of sheep and cattle. The topsoil is a sandy clay loam.

The existing perennial pasture is of average quality. At the time of inspection in mid-winter the pasture was closely grazed. Perennial rye grass was the predominant grass and there was a reasonable presence of white clover and subterranean clover. The productivity of the pasture was impacted by a significant coverage of flatweeds, bent grass, capeweed and sorrel.

At the time of inspection there was a reasonable amount of surface water following heavy winter rains.

There is limited farm infrastructure. There is high standard external fencing and water supply is supported by a single windmill. There is one farm dam on the property.



Photograph 2: View of the site along Monivae Subdivision Road

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



Photograph 3: Closer view of closely grazed pasture and surface water

ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



Photograph 4: Close-up view of pasture showing grey sandy clay soil

ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



Photograph 5: Farm infrastructure limited to single windmill

ADVERTISED PLAN

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright

**Table 1 - Assessment against the objectives of Victoria Planning Provisions (14.01-1S)
Protection of agricultural land**

VPP Objective	Assessment
Desirability and impacts of removing the land from primary production, given its agricultural productivity.	This is a grazing property of limited productivity. There is evidence of some cropping in the past but it is not ideal cropping country. Grazing by sheep can continue between solar panels.
Impacts on the continuation of primary production on adjacent land, with particular regard to land values and the viability of infrastructure for such production.	The development of a solar facility on part of this property will have no significant impact on agriculture in the surrounding area. The requirement to screen the solar panels will minimize visual impact. Land values in surrounding areas are to a large degree influenced by the financial returns from grazing enterprises, proximity to Hamilton and proximity to adjoining mineral sands processing facility and should not be expected to change as a result of the solar farm. There are potential positive outcomes from the development: landscaping will improve windbreaks for livestock; and, improved power production may be positive for agricultural loads in the region.
Compatibility between the proposed or likely development and the existing use of the surrounding land.	A solar farm is a quite different form of land use but not incompatible with agriculture. It will not preclude any forms of agricultural enterprise on surrounding land. Existing farm infrastructure (dam) will be outside the development area. Access to the remaining property will be retained. The solar farm provides an opportunity to diversify farm income in a more significant way than any agricultural enterprise.
The potential impacts of land use and development on the spread of plant and animal pests from areas of known infestation into agricultural areas	The solar development will have no impact on the spread of plant and animal pests.
Land capability	Land capability identifies the sustainable potential of an area of land for different uses or management practices. Due to its soil type the current property is limited to grazing enterprises. It is considered that the land would be categorized as Class 4 – land that is not inherently capable for intensive soil-based agriculture. ¹

**ADVERTISED
PLAN**

This copied document to be made available for the sole purpose of enabling its consideration and review as part of a planning process under the Planning and Environment Act 1987. The document must not be used for any purpose which may breach any copyright



Photograph 6: The solar site is well screened from Monovae Subdivision Road

**This copied document to be made available
for the sole purpose of enabling
its consideration and review as
part of a planning process under the
Planning and Environment Act 1987.
The document must not be used for any
purpose which may breach any
copyright**

**ADVERTISED
PLAN**