COUNCIL ASSESSMENT PANEL SPECIAL MEETING
21 October 2020
AGENDA – 9.1

Applicant: Tetris Energy Pty Ltd	**Landowner:** Jerilderie Pty Limited
Agent: Frank Boland	**Originating Officer:** Melanie Scott
Development Application:	20/530/473
Application Description: Solar farm (4.98MW), comprising ground mounted solar arrays (maximum height 2.9m), battery storage containers (4MW), inverters, temporary site office, storage building & associated car parking, fencing (maximum height 2.3m) & signage (non-complying)	
Subject Land: Lot:16 Sec: P6597 DP:13143 CT:5460/130	**General Location:** Intersection of Warren Road and Torrens Valley Road Birdwood ***Attachment – Locality Plan***
Development Plan Consolidated : 8 August 2019 **Map** AdHi/3	**Zone/Policy Area:** Watershed (Primary Production) Zone
Form of Development: Non-complying	**Site Area:** 55.1 ha
Public Notice Category: Category 3 Non Complying Notice published in The Advertiser on 24 July 2020	**Representations Received:** 80 **Representations to be Heard:** 24

1. EXECUTIVE SUMMARY

The purpose of this application is to seek Development Plan Consent for the installation of an electricity generation plant, in the form of a ground mounted solar photovoltaic array and associated infrastructure. The proposal is wholly contained within Lot 16 Part Section 6597 Torrens Valley Road Birdwood.

The subject land is located within the Watershed (Primary Production) Zone and the proposal is a non-complying form of development. Seventy eight representations in opposition and two representation in support of the proposal were received during the Category 3 public notification period.

It is acknowledged that solar facilities are not specifically listed as an envisaged use within the subject zone, however the establishment of renewable energy facilities is generally supported by Development Plan policies when established in appropriate areas to maximise efficient generation and supply of electricity. The subject photovoltaic array is located on existing cleared land, with an east to west orientation to take advantage of solar access. The applicant confirmed their research for this site meets ideal solar access levels which encourage a maximum generating capacity of 4.95 megawatts. In recognition of the community feedback the applicant has confirmed during the assessment of the application that they will use a single axis tracking system which minimises the height of the proposed solar units to a maximum of 2.9metres. Extensive land scaping to a maximum height of 3 metres is proposed along the southern, western and eastern boundaries of the subject land, inside the property boundary in the portion occupied by the solar farm and the applicant has agreed to paint all buildings on the site Colorbond Woodland Grey, further limiting the visual impact of the proposal.

As per the CAP delegations, the CAP is the relevant authority for Category 3 non-complying development where representors wish to be heard in support of their representations.

The main issues relating to the proposal as raised by the representors are visual amenity, impacts on the character of the locality, light reflection, bush fire management, loss of land for primary production use and the impact on the rural character of area.

Following an assessment against the relevant zone and Council Wide provisions within the Development Plan, staff are recommending that CAP **GRANT** Development Plan Consent.

Note, concurrence from SCAP is no longer required for consents to non-complying development effective 15 May 2020 as a result of the COVID-19 Emergency Response (Further Measures) Amendment Bill 2020 and the subsequent amendment to Section 35 of the Development Act 1993 which removed the need for concurrence to be obtained.

2. DESCRIPTION OF THE PROPOSAL

The proposal is for the following:

- 4.98MW solar facility using single axis tracking (maximum height 2.9m) photovoltaic technology covering approximately 13 hectares of the subject land
- 1800 tracker stands (piers) supporting 13000 solar panels
- Battery storage – up to 5 units approximately 6m x 15m x 3m high
- 2 x 2500 SMA inverters - the dimensions are 6m x 2.5m x 3m high, similar to a 20ft shipping container. Please note that inverters are sometimes referred to as PCUs (Power Conditioning Unit in the report and attachments).
- Temporary site office and maintenance storage area 6m x 2.5m x 2.7m high on 0.6m pier footings
- Landscaping proposed along the western, southern and eastern perimeter
- 2.3m high security mesh fence and
- Location signage at the entrance gate that includes project details, site contact, emergency details and safety considerations.

The proposed plans are included as ***Attachment – Proposal Plans*** with other information included as ***Attachment – Application Information*** and ***Attachment – Applicant's Professional Reports***.

3. BACKGROUND AND HISTORY

The subject land is one parcel known as lot 16 part section 6597 Torrens Valley Road Birdwood and has no development history. The land forms part of a large rural land holding with multiple parcels which extends more than 3 kilometres north on Warren Road to Martin Hill Road.

There were amended plans prior to public notification to make allowance for the proposal location adjacent a scenic route.

4. REFERRAL RESPONSES

EPA

Based on the information submitted with the application, the EPA is satisfied the proposed solar farm demonstrates a negligible risk to water quality due to the following:

- No chemical storage is proposed within the solar farm facility. Therefore, the risk of potential water quality impacts from a Class 1 listed pollutant (as defined in the *Environment Protection (Water Quality) Policy 2015*) is considered low.

- The proposed solar farm is set back from the River Torrens by approximately 130 metres.
- Minor access roads are proposed within the site, all of which would be permeable surfaces constructed using an all-weather compressed gravel.
- Dense intact native vegetation would not be removed at the site. As such, erosion impacts from construction works would be of a less impact.
- Stormwater from all associated infrastructure would be managed by shallow swales with diversion drains located along the south western corner of the site and would divert stormwater from the upstream catchment of the site. The EPA have recommended two standard notes (refer notes 3 & 4).

LOCAL HERITAGE (informal)

The Lutheran Church is located at some distance from the Warren Road frontage, with vegetation scattered between the Church and the road, and the building is elevated higher than the site for the solar array. The arrays have a set back from the Warren Road of 10 metres and the existing screening (deciduous) is proposed to be supplemented with a native vegetation screen (evergreen), which will provide a visual barrier between the arrays and the Local Heritage Place site at 2017 Warren Road. Council's Local Heritage advice is that for all these reasons there will be no physical impact on the built fabric of the Church.

The above responses are included as ***Attachment – Referral Responses.***

CFS and NVC referrals were not triggered by the proposal in accordance with Development Regulations 2008.

5. CONSULTATION

The application was categorised as a Category 3 form of development in accordance with Section 38(2) (c) of the Development Act 1993 requiring formal public notification and a public notice. Eighty (80) representations were received plus one submission was received out of time. Overall seventy seven (78) representations are opposing the proposal, and two (2) are in support of the proposal. The majority of representors were from adjacent and nearby properties.

The following representors indicated that they wish to be heard:

Name of Representor	**Representor's Property Address**	**Nominated Speaker**
Jim Rathjen	PO Box 9, Birdwood	Personally
John Keep	PO Box 182, Birdwood	Kieron Barnes Planning Studio
Paul Laister	PO Box 140, Birdwood	Personally
Bianca Laister	PO Box 140, Birdwood	Personally
Kathryn Hodgson	8 Church Street, Birdwood	Bianca Laister
Geoff Hodgson	8 Church Street, Birdwood	Bianca Laister
Arnold Neyman	Eastern Entrance to Birdwood – corner of Warren Road & Torrens Valley Road	Bianca Laister

Wendy Mallett	6 Blumel Road, Birdwood	Bianca Laister
Margaret Applebee	4 Church Street, Birdwood	Bianca Laister
Malcolm Applebee	4 Church Street, Birdwood	Bianca Laister
Adam & Diane Levy	254 Winton Road, Forreston	Personally
G L & E F Pienaar	56 Shannon Street, Birdwood	Personally
Matthew & Haze Sackey	31 Winton Road, Birdwood	Personally
Jess Micklethwait	910 Torrens Valley Road, Birdwood	Personally
Adrian & Ann Beacham	1783 Warren Road, Birdwood	Personally
Karen Russell	13 Lange Crescent, Birdwood	Personally
Garry North	1977 Warren Road, Birdwood	Personally
Pastor David Kuss	Birdwood Lutheran Church 2017 Warren Road, Birdwood	Personally
Caralyn Marsland	PO Box 93, Birdwood	Personally
Anthony Le Ray	1030 Torrens Valley Road, Birdwood	Personally
Eboni Ashby	1030 Torrens Valley Road, Birdwood	Personally
David Lewis	1 Theel Avenue, Birdwood	Personally
Liesa Lombard	30 Shannon Street, Birdwood	Personally
Matthew Lombard	29 Shannon Street, Birdwood	Personally
Christine Shanahan	811C Torrens Valley Road, Birdwood	Personally
Kristine Hefford (Keogh)	5 Church Street, Birdwood	Personally

The applicant or their representatives – Frank Boland and Mr Robin Ling on behalf of Tetris Energy and Frank Brennan (Planning Consultant) will be in attendance.

The issues contained in the representations can be briefly summarised as follows:

- Impacts on visual amenity
- Appropriateness of the proposed development within the locality
- Loss of primary production land
- Impact on adjacent Local Heritage Place
- Impacts of glare/light reflection
- Industrial nature of the proposed development

These issues are discussed in detail in the following sections of the report.

A copy of the submissions is included as ***Attachment – Representations*** and the response is provided in ***Attachment – Applicant's Response to Representations.*** A copy of the plans which were provided for notification is included as ***Attachment – Publically Notified Plans***

6. PLANNING & TECHNICAL CONSIDERATIONS

This application has been evaluated in accordance with the following matters:

i. The Site's Physical Characteristics

The subject land is approximately 51 hectares in area and is bisected by the Torrens River meandering roughly from the north eastern corner to the south western corner. The portion of the land on the southern side of the river is gently undulating. The land on the northern side of the river is steeply sloped. The river banks are lined with eucalypts and there are eucalypts dotted around the subject land. The land is bounded to the south by Torrens Valley Road and to the east by Warren Road. In addition to the Torrens River, there are two minor watercourses on the land, all forming part of the Torrens River catchment. The Torrens River is flood mapped on the north eastern portion of the land at or close to the boundary. There are two bores located on the land and some fencing. The land has historically been used for grazing and contains no buildings.

ii. The Surrounding Area

Torrens Valley Road is a designated tourist route in the Development Plan [refer Figure AdHi (EC)/1] and a DIT road. All adjoining land is located within the same zone, being the Watershed Primary Production zone. Land holdings to the north, south and west are generally larger holdings with some smaller rural lifestyle allotments interspersed. The smaller lifestyle allotments are clustered on Winton Road to the west of the subject land and in the south western corner across Torrens Valley Road. The land to the east and south east of Warren Road contains smaller holdings in the same zone, one of which is the Local Heritage listed Lutheran Church and Manse. The western-most boundary of the township of Birdwood is some 180 metres to the east of the subject land. The proposed access is approximately 90 metres from the intersection of Winton and Torrens Valley Road. The solar farm begins approximately 13 metres from the Warren Road property boundary and is generally approximately 100 metres from Torrens Valley Road. Importantly the site was chosen for its proximity to the existing overhead transmission line running from the solar farm's proposed Sub-Station to the existing SAPN Angas Creek – Tungkillo 33kV electricity distribution line.

iii. Development Plan Policy considerations

a) Policy Area/Zone Provisions

The subject land lies within the Watershed (Primary Production) Zone. The Zone provisions seek the following:

- *The maintenance and enhancement of the natural resources of the south Mount Lofty Ranges*
- *The enhancement of the Mount Lofty Ranges Watershed as a source of high quality water*
- *The long-term sustainability of rural production in the south Mount Lofty Ranges*
- *The preservation and restoration of remnant native vegetation in the south Mount Lofty Ranges*
- *The enhancement of the amenity and landscape of the south Mount Lofty Ranges for the enjoyment of residents and visitors*

The following are considered to be the relevant Zone provisions:

Objectives: 1, 2, 3, 4 & 5
PDCs: 1, 2, 4, 5, 8, 9, 10, 11, 14, 15, 16, 17, 28, 29, 31, 32, 35, 36, 37, 38, 39, 42, 43, 44

PDC 1 requires buildings to be located in unobtrusive locations and defines seven parameters to assist in determining what is unobtrusive. In the case of the subject proposal its location is considered below ridge lines and in a valley given the land is on the low side of the two major surrounding roads. There is a possibility the proposal will be glimpsed in the skyline momentarily on the approach from the south west, however it is considered that the proposed landscaping will minimise the impact of this visual intrusion in the landscape.

In addition, the proposal is set back over 100 metres from the Torrens Valley Road boundary and 10 metres from Warren Road. With respect to the Warren Road setback it is noted that the site is on the low side of the road. Minimal earthworks are proposed in the location of the solar arrays, other than for footing and swale works. The solar arrays have a maximum vertical profile of 2.9 metres. Furthermore, PDC 1 requires development to be screened by existing native vegetation when viewed from public roads. The proposal does not propose to alter any existing vegetation and proposes to increase plantings for screening purposes from all adjoining roads and has been designed to minimise interference with watercourses on the subject land. For all these reasons the proposal is considered on balance to accord with PDC 1.

PDC 2 requires buildings to be unobtrusive and not detract from the desired natural character of the zone. The PDC has parameters which detail how this can be achieved including keeping buildings low in profile. The solar arrays on a single axis rotation will have a maximum height of 2.9 metres which is considered low in profile, particularly when compared to residential development the solar arrays are less than a standard single storey wall height.

The solar arrays consist of 13,000 panels on 1,800 piers and run with the contours of the land, with landscaping proposed along the western, southern and eastern perimeter. Grazing is proposed to be integrated with stock able to graze at times beneath the solar arrays to ensure the primary production use of the land is retained and the fire risk is mitigated. On balance the proposal is considered to accord with PDC 2.

PDC 4 requires buildings and structures to be a minimum of 25 metres from watercourses and not to be located on land subject to flood mapping. With regard to flood mapped land the PDC references chain mesh fences as undesirable. The proposal has been designed to meet the setback distance to watercourses described in this PDC. There is a portion of the subject land which is flood mapped, located some 400 metres to the north of the proposal. As such the flood mapping portion of this PDC has limited influence with regard to the merits of the proposal. This issue is explored in more detail in the hazards section of this report.

PDC 8 requires outbuildings be limited and grouped together. The proposal includes a solar array spread over approximately 13 hectares (23.63%) of the 55 hectare property with a 1.3km perimeter fence and a number of support buildings clustered together in the south western corner adjacent to the solar array. The location for these buildings is approximately 170 metres from Winton Road and 100 metres from Torrens Valley Road. The buildings proposed include a temporary office and toilet during construction, a spare parts shipping container PCUs, solar inverters and battery storage. Due to terrain and existing vegetation the proposal has little and very limited visibility to residences on Winton Road. On balance the proposal is considered in accordance with this PDC.

There is only one access point proposed from Winton Road to the south western corner of the site which is proposed to follow the gentle contours of the land on this portion of the site. This access will be used during construction which is expected to take of 3 – 4 months. There will be a peak in months 2 and 3 of construction which may see 15 to 20 people on site. Once operational the site may generate up to four trips per week by a light vehicle and a small truck every 6 months. The proposal is therefore considered to be in accordance with PDC 9.

The applicant proposes a screen of native vegetation on the western, southern and eastern property boundaries, inside the boundary line and has used Council recommended plantings to varying density to 3 - 4 metres high. The proposal is therefore considered to be in accordance with PDCs 10 & 11.

Representors have argued the proposal will detract from the natural and rural landscape character of the region. The applicant has mitigated the potential impact on the visual amenity of the proposal by amending the proposed solar array to provide a 100 metre setback from Torrens Valley Road. No further development is proposed in the vicinity of the junctions of Torrens Valley Road and Warren and Winton Roads. In addition to the vegetation on the roadside verge of Torrens Valley and Warren Roads, the applicant proposes creating an additional native vegetation screen along both Torrens Valley Road, Warren Road and Winton Road on the subject land. Finally the proposal seeks to protect the rural vista by retaining the existing sheep grazing operation around and amongst the solar array and retaining all existing native vegetation. On balance the proposal is considered to be in accordance with PDCs 14, 15, 16 & 17.

Conservation

The proposal has been modified to protect all native vegetation on the land including stand-alone eucalypts scattered on the land in accordance with PDCs 28 & 29. The proposal will not adversely impact on native vegetation in accordance with PDC 31 and 32. There is no known swampland in the vicinity of the proposal in accordance with PDC 35. There will be a portaloo on site during construction however there is no intention to install a permanent staff ablutions facility on the site long term. The proposed solar array is not expected to impact on water quality (as confirmed by the EPA), as there will be no on-site waste system, the photovoltaic cells are closed units with limited opportunity for leakage and will not significantly the flow of surface water on the site in accordance with PDC 36.

Appearance

PDC 37 requires trees, other vegetation and earth mounding to be retained or provided as part of the development where the environment may be visually improved by the provision of the same. Earth mounding was not considered necessary for this site and, as discussed elsewhere in this report, extensive landscaping has been proposed to enhance the existing vegetation. On balance the proposal is considered to be in accordance with PDC 37. Further as previously discussed, there are no other buildings on the subject land and the support buildings for the solar array have been clustered together as required by PDCs 38 & 39. The applicant has agreed to paint all buildings (temporary site office, battery storage and inverters) Colorbond Woodland Grey.

Rural

PDC 42 requires rural areas be retained for primary production purposes and the applicant proposes to graze sheep under and around the solar array. There are some rural studies interstate currently into the effect of solar arrays on primary production, and with regard to sheep grazing preliminary findings show sheep make use of the shade and shelter provided. On balance the proposal is considered to be in accordance with PDCs 43 and 44 as the proposal is a use that will be compatible with the continuance of grazing on the land.

b) Council Wide provisions

The Council Wide provisions of relevance to this proposal seek (in summary):

- Orderly and economic development

The following are considered to be the relevant Council Wide provisions:

Animal Keeping and Rural Development

Objectives: 1 & 5

PDCs: 1, 4 & 23

The proposal includes the intention to continue grazing sheep on the subject land and has been designed around any native vegetation on the land. There are trials underway at the moment to record the impact of solar arrays on animals grazing in and around them and early reports suggest the animals do well and the solar field benefits from the weed management undertaken by the sheep[1]. As the land will still be used for grazing, the proposal does not change the primary use of the subject land in accordance with PDC 1.

During construction there is some potential for dust and noise nuisance which the proponent has undertaken to manage in accordance with EPA guidelines. The solar cells are closed cells and stormwater will fall to the ground and natural overland paths will be followed for the management of run off. The use of sheep to graze the land under the proposed solar arrays will minimise the potential bushfire hazard in the immediate vicinity of the arrays.

[1] https://www.abc.net.au/news/rural/2020-08-25/parkes-solar-panel-sheep-trial-early-positive-results/12581756?utm_medium=social&utm_content=sf237133651&utm_campaign=abc_rural&utm_source=m.facebook.com&sf237133651=1

The proponent has proposed landscaping on the eastern, southern and part of the western boundary of the subject land using native evergreen trees and bushes and has proposed bushfire buffers for these plantings and has amended the plantings to include plants recommended by Council staff as being more fire resistant. The proposal includes appropriate buffers given the deciduous nature of existing roadside vegetation on the southern and eastern road side verges. The proposal has given consideration to all elements of PDC 4 and proposes acceptable outcomes in accordance with this PDC.

PDC 23 is also considered relevant despite describing 'Environmental Covers' adjacent to scenic routes. The reason being is this serves as a valid reference and comparison to the potential impact of the proposed solar farm on the rural landscape. Environmental covers with a maximum height of 5 metres as close as 5 metres to a road often only require a Building Rules Consent but go through no rigorous planning assessment. By comparison, it is considered that the solar arrays with a maximum height of 2.9 metres is likely to have a less imposing presence and impact on the visual amenity of the land on approach to Birdwood.

Design and Appearance
Objectives: 1
PDCs: 7, 9, 11, 12
The proposal is on one of the lowest portions of land in the locality and is therefore unlikely to cause a loss of sunlight to existing development in the locality. Representors have argued that the proposal will present an unreasonable loss of views and alter the character of the area. Arguably the property whose view will be most impacted is 1030 Torrens Valley Road which holds an elevated position approximately 260 metres to the south east of the proposed solar array. Given the array is proposed to be 100 metres north of Torrens Valley Road, and the road frontage outside the house at 1030 Torrens Valley Road is lined with large eucalypts on both sides, it is considered that there will be a minimum visual intrusion for this property as the view is broken up by the existing trees.

With regards to altering the character of the area, the applicant has moved the solar array 100 metres from Torrens Valley Road and offered landscaping prior to public notification of the application. As such it is considered that the proposed array will have a negligible impact on the character of the area when approaching Birdwood from the west. When driving along Warren Road in a northerly or southerly direction there are limited views of the subject land, and consequently the proposed solar arrays, for the following reasons:

1. The existing roadside vegetation which is deciduous will be supported by additional ever green vegetation on the subject land; and
2. The subject land is generally lower than Warren Road which aids the vegetation in screening the proposed solar array from the public realm.

It is worth noting the Local Heritage listed Lutheran Church in Church Street is higher than both Warren Road and the proposed solar farm by some 30 metres, as such this site is afforded some elevated views over the solar array, however the views of the church when approaching Birdwood from the west will remain unobstructed. On balance the proposal is considered to be in accordance with PDC 7.

The only earthworks proposed for the solar array are for an access track to the facilities area and in the area proposed for the facility buildings. There may be some diversion swales suggested as part of a stormwater management plan required by recommended condition 11. The access track is proposed to work with the contours of the land and the proposal suggests minimal earthworks. The proposal is therefore considered to be in accordance with PDC 9.

PDC 11 requires no building should be erected within 100 metres of Scenic Routes which would impair, disfigure, interfere with or, be in any way detrimental to the aesthetic appearance or natural beauty of the scenic routes, the landscape visible from any part of the scenic routes and the landscape visible from any vantage point adjacent to the scenic routes. The proposed solar arrays have been sited 100 metres from the edge of the bitumen on the Torrens Valley Scenic Route. The arrays have a maximum height of 2.9 metres achieved at certain times during the day and a landscape buffer is proposed to a maximum height of 2 - 3metres. No panels are proposed in the vicinity of the intersection of Warren and Torrens Valley Road. The site is generally lower than the surrounding roads. Therefore it is considered that the proposal will have a limited impact on the scenic beauty of the Torrens Valley Scenic Route and therefore the proposal is considered to be in accordance with PDC 11.

PDC 12 requires consideration be given to the impact of any development on the amenity, aesthetic appearance and scenic beauty of the River Torrens and suggests a setback of 60 metres from the top of the bank. The River Torrens is entirely within private land for this proposal and the existing vegetation along the banks of the river is not proposed to be altered. The proposal has been amended to ensure the solar array and associated fencing is not within 60 metres of the top of bank of the River Torrens. The proposal is therefore considered to be in accordance with PDC 12.

Energy Efficiency
Objectives: 2
PDC: 3
Whilst it is acknowledged that solar facilities are not specifically listed as an envisaged use within the subject zone, the establishment of renewable energy facilities is generally supported when established in appropriate areas that maximise efficient generation and supply of electricity. The subject photovoltaic array is located on existing agricultural land, with an east to west orientation to take advantage of solar access. This, along with the single axis tracking system, encourages maximum generating capacity of 4.98 megawatts. The proponent has undertaken extensive site testing and advises the site meets required solar radiation levels and most importantly is adjacent to an appropriate point to connect to the SAPN (South Australian Power Networks) infrastructure. The solar farm will connect directly to the national electricity grid via an overhead transmission line running from the solar farm's proposed Sub-Station to the existing SAPN Angas Creek – Tungkillo 33kV electricity distribution line. The connection into the 33kV SAPN distribution line will be via a pole mounted load switch. There is no potential for overshadowing and the single axis tracking array will ensure the proposal maximises exposure to winter sun. The proposal is therefore considered to be in accordance with PDC 3.

Hazards
Objectives: 1, 5, 6,
PDCs: 1, 2, 3, 4, 5, 8
The subject land is in a medium bushfire risk area, the lowest level of hazard in the Adelaide Hills Council. The solar array does not propose any alteration to existing land form or vegetation so is not considered to alter the bushfire hazard in accordance with PDCs 1 & 2. Further the applicant is proposing to maintain a 10 metre fire break on the subject land adjacent to the proposed landscape screen.

There is a portion of subject land at its north eastern extreme which is flood prone and the solar array is not intended to be placed in this location. The arrays themselves are unlikely to elevate any flood risk given they are elevated and the majority of them are on a contour above the level the portion of flood mapping indicates the flood level rises to. There is however a 2.3metre high chainmesh security fence proposed around the solar arrays. Whilst this style of fencing can pose a flood hazard, the fence is approximately 500 metres downstream of the flood mapped portion of the site and more than 300 metres distance and, 35 metres down slope, from the nearest building (Lutheran Church). Requiring the fence to be no closer to the banks of the Torrens River than 60 metres will limit the flood hazard proposed on the site in accordance with PDCs 3, 4 & 5.

Heritage Places
Objectives: 1, 3, 4
PDCs:
The Lutheran Church is located at some distance from the Warren Road frontage, with vegetation scattered between the Church and the road, and the building is elevated higher than the site for the solar array. The array has a set back from the Warren Road of 10 metres and the existing screening (deciduous) is proposed to be supplemented with a native vegetation screen (evergreen), which will provide a visual barrier between the array and the Local Heritage Place site at 2017 Warren Road. Council's Local Heritage advice is that for all these reasons there will be no physical impact on the built fabric of the Church.

Infrastructure
Objectives: 1, 2, 3
PDCs: 1, 9, 10
The site has been chosen for access to the SAPN network amongst other things. Distance from connection to the energy generating facility is one of the major determinants of the success of a project as power is lost in transmission. Given proximity to the connector the proposal is considered to be in accordance with PDC 1.

PDC 9 requires electricity infrastructure to be designed and located to minimise visual and environmental impacts. As discussed elsewhere in this report a setback 100 metres from Torrens Valley Road and 10 metres from Warren Road is proposed along with improved evergreen boundary buffers on the subject land and the proposal is in accordance with this PDC. Further no clearance of native vegetation is proposed to enable the solar farm installation in accordance with PDC 10.

Interface Between Land Uses
Objectives: 1
PDCs: 1, 2
PDC 1 lists elements of development which can have a detrimental effect on the amenity of a locality. There will be some short term (three months) impacts during construction in relation to noise, dust and traffic. The applicant has indicated their intention to operate the site in accordance with EPA guidelines during construction. Representors have raised concerns that the solar panels will cause glare. The applicant has responded to advise that solar panels are designed to absorb the solar irradiation and there will be negligible glare from the panels. Photovoltaic modules have low levels of reflectivity between 0.03 and 0.20 depending on the specific materials, anti-reflective coatings, and angle of incidence. Being a single axis tracking solar Photovoltaic system, they will track the sun throughout the day and always be directly facing the sun, therefore further minimising angle of incidence and any glare. On balance the proposal is considered in accordance with PDC 1.

The proposal has been well set back from the Torrens Valley Scenic Route (100 metres) and is 10 metres from Warren Road. Additional vegetative screening of the subject land is proposed around the boundaries and combined with the low lying nature of the subject land the proposal is considered to minimise negative impacts on existing and potential future land uses in accordance with PDC 2.

Landscaping, Fences and Walls
Objectives: 1, 2
PDCs: 2
The proponent has used AHC Council's "Guide Native Habitat: Landscaping and Gardening Guide" to select species for the proposed boundary landscaping and as required by this PDC the landscaping is to address the street frontage and will be set back from power lines. Further the applicant has committed to watering and managing the plants in their first three years to ensure survival and ongoing maintenance of the trees. The applicant has also amended the planting list to include some fire resistant species as commended by State Flora and CFS guidelines.

Natural Resources
Objectives: 1, 6, 8, 10, 13, 14
PDCs: 1, 3, 5, 6, 38
The EPA referral response notes the risk of potential water quality impacts is considered low and the proposal demonstrates a negligible risk to water quality. The EPA further notes the greatest risk to the site is during construction and references some of their own construction guides which the applicant has accepted (refer Notes 3 and 4 in the recommendation). As such the proposal is considered in accordance with PDCs 1 and 3. With regard to PDC 5 which seeks minimum effect on natural features, land adjoining water courses and designated scenic routes, as previously discussed the proposal is set well back from the scenic route, does not propose to alter the land form and is setback from the river and thus is considered in accordance with this PDC.

The proposal does not alter any existing native vegetation on the land with the solar arrays being proposed around a few standalone eucalypts scattered across the site. As previously discussed native vegetation is proposed in the buffer plantings and the proposal is considered in accordance with PDC 37.

Orderly and Sustainable Development
Objectives: 1, 2, 3, 4, 10,
PDCs: 1, 2, 3, 5
As previously discussed the screening and low lying nature of the land combined with the low profile of the solar arrays contribute to minimising the visual impacts of the proposal so in accordance with PDC 1 the proposal should not prejudice the development of the zone for its intended use. Indeed the subject land will still be used for grazing (primary production) in accordance with PDC 2.

The applicant has contended the project will boost the local economy during construction and also by the provision of lower cost pollution free electricity as envisaged by PDC 3. As elsewhere in this report the solar array is located to maximise connection potential to existing infrastructure in accordance with PDC 5.

Renewable Energy Facilities
Objectives: 1, 2, 3
PDCs: 1, 3, 4
Whilst the PDCs in this section of Council's Development Plan refer to wind farms and solar arrays are not ancillary to a wind farm, it is generally accepted that solar generation is envisaged under the term renewable energy facilities. There is an argument 'Renewable Energy facility' is a broad term and by definition would capture solar. In which case this proposal has minimised visual impact, does not pose glare or shadowing and is considered to be in accordance with PDCs 3 & 4. Further the applicant has confirmed their site testing ensures the proposed array is in an area which will maximise energy generation as envisaged by PDC 1.

Siting and Visibility
Objectives: 1
PDCS: 1, 2, 3, 9, 10
As discussed elsewhere in this report the solar array has been sited to minimise its visual impact on the natural rural character of the area by being 100 metres from the Torrens Valley Scenic Route and screened from the east, south and west with increased landscaping buffers on the subject land in accordance with PDCs 1, 2 & 10. Further the proposed solar array is not on a ridge line and is on the low side of the adjoining roads to the south and east. On balance the proposal is considered to be in accordance with PDC 3.

The proposed access track from Winton Road is proposed in crushed gravel and limited to one point on the subject land for the support buildings associated with the development. Council engineering staff have no objection to the proposed access which is considered to be in accordance with PDC 9.

7. SUMMARY & CONCLUSION

The proposal is the first large solar array in the Adelaide Hills Council Area and has aroused a great deal of community interest. Whilst solar farms are not particularly mentioned in the way Wind Farms are in the Development Plan, it is considered that Renewable Energy Facilities include solar farms and therefore solar power generation can be considered to be envisaged in the zone. There have been a number of versions of the solar array layout in response to the planning and representor concerns raised. Amongst these concerns the main one has been the set back from the Torrens Valley Scenic Route. Given the setback to the main roads, the improved landscaping and the proposed continued use of the land for grazing purposes, the proposal is considered on balance to meet the aspirations and relevant provisions of the Development Plan.

The proposal has been well set back from the Torrens Valley Scenic Route (100 metres) and is 10 metres from Warren Road. Additional screening of the subject land is proposed around the boundaries and, combined with the low lying nature of the subject land, the proposal is considered to minimise negative impacts on existing and potential future land uses.

The proposal is sufficiently consistent with the relevant provisions of the Development Plan, despite its non-complying nature, and it is considered that the proposal is not seriously at variance with the Development Plan. In the view of staff, the proposal has sufficient merit to warrant planning consent. Staff therefore recommend that CAP **GRANT** Development Plan Consent**,** subject to conditions.

8. RECOMMENDATION

That the Council Assessment Panel considers that the proposal is not seriously at variance with the relevant provisions of the Adelaide Hills Council Development Plan, and GRANTS Development Plan Consent to Development Application 20/530/473 by Tetris Energy Pty Ltd for Solar farm (4.98MW), comprising ground mounted solar arrays (maximum height 2.9m), battery storage containers (4MW), inverters, temporary site office, storage building & associated car parking, fencing (maximum height 2.3m) & signage (non-complying) at Lot 16 Torrens Valley Road Birdwood subject to the following conditions:

(1) <u>Development In Accordance With The Plans</u>

The development herein approved shall be undertaken in accordance with the following plans, details and written submissions accompanying the application, unless varied by a separate condition:

- **Planning Issue Arkgroup Drawings A-090720 01 of 02 & 02 of 02 date stamped by Council 15 September 2020**
- **Tracker & PCU Elevation Drawing PS118584-CIV-0002 revision A dated 27 March 2020 prepared by WSP and date stamped by Council Amended 14 September 2020**
- **Birdwood Solar Farm Amended Landscaping Plan prepared by Tetris Energy dated 14 September 2020 and date stamped by Council Amended 14 September 2020**
- **PV Solar Overall Layout Plan revision 3 dated 28 September 2020 and date stamped by Council 29 September 2020**

REASON: To ensure the proposed development is undertaken in accordance with the approved plans.

(2) External Finishes

The external finishes to the buildings (temporary site office, battery storage and inverters) herein approved shall be as follows:

WALLS: Colorbond Woodland Grey or similar
ROOF: Colorbond Woodland Grey or similar

REASON: The external materials of buildings should have surfaces which are of a low light-reflective nature and blend with the natural rural landscape and minimise visual intrusion.

(3) Construction Environmental Management Plan (CEMP)

A Construction Environmental Management Plan (CEMP) shall be submitted for approval by Council prior to the commencement of site works. The CEMP shall include specific management measures or plans for the following aspects:

- **Air quality and dust**
- **Traffic and access**
- **Waste management**

REASON: To minimise environmental impacts.

(4) Operational Environmental Management Plan (OEMP)

An Operational Environmental Management Plan (OEMP) shall be submitted for approval by Council prior to the commencement of commercial operations. The OEMP shall include specific management measures or plans for the following environmental aspects:

- **Noise and vibration**
- **Fire risk**
- **Public safety**
- **Emergency response planning**
- **Complaints management**

REASON: To minimise environmental impacts.

(5) Rehabilitation of Construction Area

Exposed and/or cleared ground surfaces (as a result of construction activities) shall be reinstated and/or reseeded with appropriate ground cover as soon as practicable following substantial completion.

REASON: To limit wind and water borne erosion.

(6) The operation of plant or equipment (approved herein) shall be designed and operated to comply with the *Environment Protection (Noise) Policy 2007*.

REASON: To ensure that no demonstrable nuisance or loss of amenity is caused to any person beyond the site.

(7) The portable toilet shall be removed from the site upon completion of the construction phase and prior to the commencement of the operational use of the development.

REASON: To ensure all waste water is s managed appropriately on site.

(8) Landscaping and Tree Planting

Landscaping and tree planting proposed must be planted in the first spring after construction on the site commences and regularly watered in the first year to allow landscaping to become established and henceforth maintained appropriately, with any dead or dying plants to be removed and replaced, to the satisfaction of Council.

REASON: To preserve the amenity of the locality.

(9) Prior to Building Rules Consent - Access

Prior to Building Rules Consent being obtained, the engineering detail for the proposed new access to Winton Road, including access dimensions, gradients and interface with Winton Road and stormwater management shall be submitted to and, approved by Council. The Design shall demonstrate consideration of existing stormwater flows past the access point, and include management of these flows, as well as any flows generated by the new access itself.

REASON: To ensure safe and convenient all-weather access.

(10) Prior to Building Rules Consent – Provision of Stormwater Management Plan

Prior to Building Rules Consent being obtained, a detailed stormwater management plan for the site shall be submitted to, and approved by Council. The works required by this Stormwater Management Plan shall be constructed, completed and operational within 1 month of the installation of the solar array, to the satisfaction of Council.

REASON: To ensure that stormwater does not adversely affect any adjoining property, the River Torrens or a public road.

(11) Land Rehabilitation/Decommissioning

Within nine months of cessation of the solar farm use, the renewable energy infrastructure approved herein (including all arrays, associated equipment and structures, cabling, fencing, footings etc) shall be decommissioned and removed, with the land rehabilitated to its pre-development condition.

REASON: To ensure that the cost of land rehabilitation is borne by the applicant and preserve the viability of the land for primary production purposes.

NOTES

(1) Development Plan Consent

This Development Plan Consent is valid for a period of twelve (12) months commencing from the date of the decision (or if an appeal has been commenced, the date on which the appeal is determined, whichever is later). Building Rules Consent must be applied for prior to the expiry of the Development Plan Consent, or a fresh development application will be required. The twelve (12) month period may be further extended by written request to, and approval by, Council. Application for an extension is subject to payment of the relevant fee.

(2) **Erosion Control During Construction**

Management of the property during construction shall be undertaken in such a manner as to prevent denudation, erosion or pollution of the environment.

(3) **EPA Environmental Duty**

The applicant is reminded of his/her general environmental duty, as required by Section 25 of the Environment Protection Act *1993*, to take all reasonable and practical measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes, or may cause, environmental harm.

The applicant is reminded of its general **environmental duty, as required by section 25 of the *Environment Protection Act 1993*, to take all reasonable and practicable measures to ensure that the activities on the whole site, including during construction, do not pollute the environment in a way which causes or may cause environmental harm. This includes taking all reasonable and practicable measures to minimise the potential for pollution from sediment and waste generated on-site during construction. Further guidance can be sought from the EPA's *Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry* and the *EPA Handbook for Pollution Avoidance on Commercial and Residential Building Sites (http://www.epa.sa.gov.au/files/47790_bccop1.pdf).***

(4) **EPA information sheets, guidelines documents, codes of practice, technical bulletins etc. can be accessed on the following web site: http://www.epa.sa.gov.au**

(5) **Department of Environment and Water (DEW) - Native Vegetation Council**

The applicant is advised that any proposal to clear, remove limbs or trim native vegetation on the land, unless the proposed clearance is subject to an exemption under the Regulations of the Native Vegetation Act 1991, requires the approval of the Native Vegetation Council. The clearance of native vegetation includes the flooding of land, or any other act or activity that causes the killing or destruction of native vegetation, the severing of branches or any other substantial damage to native vegetation. For further information visit:
www.environment.sa.gov.au/Conservation/Native_Vegetation/Managing_native_vegetation

Any queries regarding the clearance of native vegetation should be directed to the Native Vegetation Council Secretariat on 8303 9777. This must be sought prior to Full Development Approval being granted by Council.

9. ATTACHMENTS

Locality Plan
Proposal Plans
Application Information
Applicant's Professional Reports
Referral Responses
Representations
Applicant's response to representations
Publically Notified Plans

Respectfully submitted

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Melanie Scott
Acting Team Leader Planning

Concurrence

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Deryn Atkinson
Assessment Manager