



SPECIAL COUNCIL MEETING

Monday 4th February 2019

6:00pm

Community Hub

Room 1

48 Burns Street, Maryborough

AGENDA

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| 1. | Commencement of Meeting, Welcome and Opening Prayer | |
| 2. | Apologies | |
| 3. | Leave of Absence | |
| 4. | Disclosures of Conflicts of Interest | |
| 5. | Officer Reports | |
| 5.1. | PLANNING PERMIT APPLICATION 094/18 FOR THE USE AND DEVELOPMENT OF A RENEWABLE ENERGY FACILITY (90 MW SOLAR FARM), AND CREATION OF AN ACCESS TO A ROAD IN A ROAD ZONE CATEGORY 1, AND ASSOCIATED WORKS AT 3348 PYRENEES HIGHWAY, CARISBROOK; 3080 PYRENEES HIGHWAY, MOOLORT; AND 160 BALD HILL ROAD, CARISBROOK | 3 |
| 5.2. | PLANNING PERMIT APPLICATION 131/18 FOR THE USE AND DEVELOPMENT OF A TELECOMMUNICATIONS TOWER AT 160 BALD HILL ROAD, CARISBROOK | 43 |
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5.1 PLANNING PERMIT APPLICATION 094/18 FOR THE USE AND DEVELOPMENT OF A RENEWABLE ENERGY FACILITY (90MW SOLAR FARM), AND CREATION OF AN ACCESS TO A ROAD IN A ROAD ZONE CATEGORY 1, AND ASSOCIATED WORKS AT 3348 PYRENEES HIGHWAY, CARISBROOK; 3080 PYRENEES HIGHWAY, MOOLORT; AND 160 BALD HILL ROAD, CARISBROOK

Author: Planning Consultant

Responsible General Manager: General Manager Infrastructure Assets and Planning

The Officer Presenting this report, having made enquiries with relevant members of staff reports that there are disclosable interests that need to be raised in relation to this report.

The Acting General Manager Infrastructure, Assets and Planning declared an indirect interest by close association in relation to this matter. Following this declaration the Acting General Manager Infrastructure, Assets and Planning was no longer involved in any discussions, meetings or decision making in relation to this matter.

SUMMARY/PURPOSE:

Council has received a planning permit application (PA094/18) proposing the use and development of a renewable energy facility (90 MW solar farm), and creation of an access to a road in a Road Zone Category 1, and associated works at 3348 Pyrenees Highway, Carisbrook; 3080 Pyrenees Highway, Moolort; and 160 Bald Hill Road, Carisbrook.

Public notice of the application has resulted in 22 submissions including 18 written objections.

The application has been assessed against the policy and specific controls of the planning scheme and it is considered that the proposal meets relevant policy in the planning scheme.

POLICY CONTEXT:

Council Plan 2017-2021 – Council decisions will reflect the Council vision to be a vibrant, thriving, inclusive community by considering relevant strategic areas and/or actions when determining planning permit applications.

Central Goldfields Shire Council's Council Plan 2017-2021 (2018 Refresh) – Our Built and Natural Environment:

Outcome: Central Goldfields Shire celebrates the rich built and natural heritage and a sustainable environment.

3.3 Objective: Protect and enhance the environment while planning for growth

REPORT:**Proposal**

The applicant IB Vogt GmbH (IBV) is seeking approval to use and develop the land for a renewable energy facility (90 MW solar farm) and to create an access to the road in a Road Zone Category 1.

The proposed facility would provide enough energy to power approximately 44,000 homes and in the process to reduce CO2 emissions by 168,000 tonnes per year.

The site of the proposed facility is located on farmland approximately 3.5 kilometres east of Carisbrook. The site is located on the north side of the Pyrenees Highway and is bounded on its north side by the railway line. The north-west corner of the site has abuttal to Bald Hill Road.

The footprint of the proposed development will cover an area of approximately 300 ha. The panels will run north/south and be mounted on a single axis horizontal tracking system that allows each panel to track the path of the sun from east to west. Each row of panels will be at least 5 metres apart. The solar panels, including the mounting structures, will be a maximum height of 4m.

An access road will run around the perimeter of the site, with various east-west aligned access roads passing through the centre of the site.

Inverters (to convert the current from DC to AC) will be dispersed throughout the site alongside the internal access roads. The inverters will be contained within shipping containers (12m long x 2.5m wide x 2.5m height). Adjacent to each of the inverters will be another unit resembling a shipping container which will contain the proposed battery packs (each is 16.2m long x 2.4m wide x 2.6m height).

The substation will be located towards the north-west corner of the site.

The facility is proposed to connect to the electricity grid via the existing power lines which run along the west side of Bald Hill Road, at a point near the north-west boundary of the site.

The buildings and works associated with the development of the solar facility will be as follows:

- Perimeter security fencing
- A construction compound and site office
- Connection to the existing electricity supply along Bald Hill Road
- Substation inverter station / Transformer / Battery Storage
- Single axis tracking solar panels and associated framework
- Onsite cabling between solar panels and inverters
- Landscaping Buffers
- Access off the Pyrenees Highway

The location and layout of the proposed facility is shown on Attachment 1 Development plans including an aerial photograph of the subject land and environs.

Site and surrounds

The site is located approximately 3.5 km east of Carisbrook on the north side of the Pyrenees Highway. The site's northern boundary abuts the Moolort railway line (which is included in the PUZ4 – Transport), while the north-west extent of the site has an abuttal to Bald Hill Road.

The subject land and surrounding area is all zoned farming. The area is generally used for cattle and sheep grazing or cropping.

The land is predominantly very flat with only minor variations in elevation. The main topographic feature in the area is Mount Moolort (Bald Hill) which is a very low hill whose peak is about 1100m from the site.

There is a cluster of rural dwellings near the intersection of Bald Hill Road and Donovans Road, to the west of the site. Three of the dwellings are located at a similar elevation to the proposed solar farm, while one dwelling is elevated with views over a vineyard located on the east side of Bald Hill Road. The dwellings range from about 400 to 700 metres to the edge of the proposed solar farm.

There is a second cluster of dwellings near the intersection of Bald Hill Road and Baringhup Road, to the north of the site. These dwellings are approximately 900 to 1500 metres from the site.

The project comprises eight parcels of land with a combined area of 300ha owned by three separate landowners. The lot descriptors affected by the proposal are as follows:

- CA 14A, 3080 Pyrenees Highway, Moolort
- CA 14A1, 3080 Pyrenees Highway, Moolort
- CA 14B, 3080 Pyrenees Highway, Moolort
- CA 14B1, 3080 Pyrenees Highway, Moolort
- CA 13A & 13B, 3348 Pyrenees Highway, Carisbrook
- Lot 7, TP98420N, 160 Bald Hill Road, Carisbrook
- Lots 1, 3, 5 & 6, TP98420N, 3080 Pyrenees Highway, Moolort
- CA 13C (S4), 3080 Pyrenees Highway, Moolort

None of the above parcels have restrictive covenants recorded on title.

Two unmade government road reservations pass through the site in an east-west and north-south direction.

Referrals

External Referrals/Notices Required by the Planning Scheme:

The application was referred to VicRoads pursuant to s. 55 of the Act. VicRoads have no objection to the proposal, subject to conditions requiring the access crossover to the Pyrenees Highway being constructed generally in accordance with the plans prepared by Beveridge Williams, and the provision of a Construction Traffic Management Plan (CTMP) to its satisfaction.

The application was referred to DELWP pursuant to s. 52(1)(d) of the Act. DELWP's comments are as follows:

- In respect of native vegetation removal, DELWP notes that the current project design avoids native vegetation removal. Should this change, it advises that a permit to remove native vegetation will be required.
- In respect of screening plants, DELWP supports the proposal (as described at page 15 of the Beveridge William's report) to revegetate for screening using plants from the pre-1750 Ecological Vegetation Class (EVC) for the site.
- In respect of protection of vegetation, DELWP advises it is currently supporting buffers of 30m from the edge of any solar panels to any native vegetation retained at renewable energy facilities. This protects the vegetation from impacts during construction phase, fire suppression, and through the potential for a heat island to form around the panels. It will also protect the panels from damage through limb-fall and avoid the need for removal of native vegetation during the life of the facility. DELWP suggests to Council that it should ensure these buffers are required in its decision making on this application. It also suggests Council consider conditions that:
 - Create a buffer around native vegetation using protective temporary fencing (suggest a minimum of 15m) or the Tree Protection Zone during construction; and
 - Prevent the use of the 15m buffer for access, machinery or other storage, or construction activities on an on-going basis.
- In respect of Threatened Flora and Fauna, DELWP notes that the site has been assessed as containing habitat for four EPBC Act 1999 listed species. Development is to be avoided in these habitat areas.
- In respect of Wildlife Management, DELWP recommends the applicant be advised to prepare a 'wildlife management plan' for the site to manage and mitigate impacts from non-threatened native vegetation, and monitoring the impacts to enable adaptive management offsite. It has identified white cockatoos as a potential problem which may necessitate mitigation measures such as the armouring of cables, covering and protection of rubber seals, and the like.
- In respect of Government Roads, DELWP points out that the subject site contains two unmade government roads (Crown Land) held under licence where the solar development is proposed. The licences will need to be transferred to the applicant. Although there is no proposal to build infrastructure on the roads, DELWP points out that additional land owner consents may be required if this was to change.

The application was referred to Goulburn Murray Water (GMW) pursuant to s. 52(1)(d) of the Act. GMW has no objection subject to the following conditions:

1. All construction and ongoing activities must be in accordance with sediment control principles outlined in 'Construction Techniques for Sediment Pollution Control' (EPA, 1991).
2. If applicable, all wastewater from the office must be treated and disposed of using an EPA approved system, installed, operated and maintained in compliance with the EPA Code of Practice – Onsite Wastewater Management, Publication 891.4, and to the satisfaction of council's Environmental Health Department.
3. If applicable, the wastewater disposal area must be located in accordance with Table 5 of the EPA Code of Practice – Onsite Wastewater Management, Publication 891.4, July 2016, from any waterways (including Goulburn Murray Water open channels), drainage lines, dams or bores.

The application was referred to the Country Fire Authority (CFA) pursuant to s. 52(1)(d) of the Act. The CFA has provided an extensive set of recommendations which relate to all types of renewable energy facilities (some of the recommendations are specific to wind farms and can therefore be disregarded). The recommendations relate to Emergency Management and Site Operation.

The Emergency Management recommendations relate to:

- Risk Management (identification of hazards/risks; identification of controls; risk analysis; risk treatment and risk review)
- Emergency Management Plan (Fire Management Plan)
- Provision of Emergency Information
- Siting of battery storage facilities
- Access
- Water Supply
- Dangerous Good Storage and Handling

The Site Operation recommendations relate to:

- Operation and maintenance of facilities
- Fuel/Vegetation Management
- Battery Storage Facilities
- Fire Brigade site familiarisation and exercises
- Training for facility staff

Planning Scheme Provisions

The Planning Report submitted with the application describes the planning policies relevant to this application. These include:

State Policy

Clause 11.01-1S - Settlement

This clause references the Loddon Mallee South Regional Growth Plan (Victorian Government, 2014) which is listed as a background document at clause 72.08 of the planning scheme. Among other things, the Growth Plan supports the development of emerging and potential growth sectors including renewable energy. Section 14.1 (Water, energy and utilities) of the Growth Plan notes that the traditional electricity network is capable of accommodating projected growth for the region, and that there are significant opportunities to produce energy through alternative methods, such as renewable energy. It further notes that initiatives to support energy generation in the region should be pursued.

Clause 13.02-1S - Bushfire planning

This policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is:

- Within a designated bushfire prone area;
- Subject to a Bushfire Management Overlay; or
- Proposed to be used or developed in a way that may create a bushfire hazard.

(The subject land is located within a designated bushfire prone area).

The objective is 'To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life'.

The strategies include the following related to bushfire hazard identification and assessment:

- Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.
- Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.

There is also a strategy relating to use and development control in a Bushfire Prone Area which requires that bushfire risk should be considered when assessing planning applications for a range of listed uses and development which will result in people congregating in large numbers (and which is therefore not applicable to the proposal solar farm).

Clause 14.01 – Agriculture

The objective (Clause 14.01-1S) is to protect the state's agricultural base by preserving productive farmland. This is supported by a range of strategies including avoiding permanent

removal of productive agricultural land, and protecting productive farmland that is of strategic significance in the local or regional context.

Clause 15.03-2S – Aboriginal cultural heritage

The Objective is 'To ensure the protection and conservation of places of Aboriginal cultural heritage significance'.

Clause 17 – Economic Development

At Clause 17.01-1R (Diversified economy - Loddon Mallee South), the strategies include support and develop emerging and potential growth sectors including renewable energy.

Clause 19 – Infrastructure

At Clause 19.01-1S (Energy Supply), the objective is 'To facilitate appropriate development of energy supply infrastructure'. The Strategies are:

- Support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to industry and the community.
- Support transition to a low-carbon economy with renewable energy and greenhouse emission reductions including geothermal, clean coal processing and carbon capture and storage.
- Facilitate local energy generation to help diversify the local economy and improve sustainability outcomes.

At Clause 19.01-2S (Renewable energy), the Objective is 'To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met'. The Strategies include:

- Facilitate renewable energy development in appropriate locations.
- Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.

At Clause 19.01-2R (Renewable energy - Loddon Mallee South), the strategy is:

- Support and facilitate development in renewable energy, waste to energy, carbon sequestration and other new energy opportunities.

Local Policy

Clause 21.08 – Agricultural Productivity

The overview to this clause notes the significance of agriculture to the Shire, the wider region and Victoria, and that agricultural land in the Shire is a resource that must be maintained for productive use.

Clause 22-04 - Agriculture

This policy applies to all land in the Rural zones.

Where a permit is required for use or development, it is policy to (among other things):

- Ensure that land capability is taken into account in the assessment of land use and development proposals...
- Strongly discourage non agricultural use of rural land except in circumstances where an industry or rural dependent enterprise is linked to the agricultural use of the land.

Zones and overlays

Clause 35.07 Farming Zone (FZ)

The purpose of the Farming Zone is:

- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.
- To provide for the use and development of land for the specific purposes identified in a schedule to this zone.

35.07-1 Table of Uses

A renewable energy facility is a Section 2 – Permit required use.

35.07-4 Buildings and works

A permit is required for buildings and works associated with a Section 2 use.

Clause 44.01 Erosion Management Overlay (EMO)

A very small part of the western edge of the subject land is affected by the EMO. The purpose of the EMO includes 'To protect areas prone to erosion, landslip or other land degradation processes, by minimising land disturbance and inappropriate development'.

Particular Provisions

Clause 52.29 Land adjacent to a Road Zone Category 1

The Purpose of this clause is to ensure appropriate access to identified roads.

Under clause 52.29-3, a permit is required to create or alter access to a road in a Road Zone, Category 1.

Clause 52.29-4 requires that an application to create or alter access to (inter alia) an arterial road must be referred to the Roads Corporation under section 55 of the Act.

The decision guidelines at clause 52.29-6 require that before deciding on an application, in addition to the decision guidelines in Clause 65, the responsible authority must consider (inter alia) the views of the relevant road authority.

Clause 53.13 - Renewable Energy Facility (Other than wind energy facility and geothermal energy extraction).

The purpose of this clause is to facilitate the establishment and expansion of renewable energy facilities, in appropriate locations, with minimal impact on the amenity of the area. The clause applies to land used and developed or proposed to be used and developed for a renewable energy facility.

The clause sets out the information that must accompany an application for a renewable energy facility, as appropriate. This includes information that identifies the site and its context (Site and Context Analysis), and information that is required as part of the Design Response.

It is considered that the information submitted with the present application is generally satisfactory in terms of the information requirements under this clause. This is commented upon later in this Assessment.

The Decision guidelines for this clause require that, before deciding on an application, in addition to the decision guidelines of Clause 65, the responsible authority must consider, as appropriate:

- The effect of the proposal on the surrounding area in terms of noise, glint, light spill, vibration, smell and electromagnetic interference.
- The impact of the proposal on significant views, including visual corridors and sightlines.
- The impact of the proposal on the natural environment and natural systems.
- Whether the proposal will require traffic management measures.

Draft Solar Energy Facilities Design Guidelines (DELWP 2018)

DELWP has released a draft set of design and development guidelines for solar energy facilities. These outline the assessment and development process for large-scale solar energy facilities in Victoria and provide advice on how potential impacts can be avoided or effectively managed.

The first part of the draft DELWP Guidelines (in chapter 5) sets out the framework for assessing proposals for solar energy facilities. This requires Council to consider state planning policies, the applicable zone and overlays, the relevant particular provisions and local planning policies or other guidance provided within the planning scheme when assessing an application.

Assessment of application

The key issues with respect to this application are considered to be:

- The need to facilitate renewable energy projects (on the one hand) against meeting other planning objectives including protecting productive agricultural land and protecting landscape values and visual amenity (on the other).
- Consistency with State Policy directions
- Loss of agricultural land
- Biodiversity and native vegetation
- Landscape values and visual amenity
- Other amenity impacts

In many ways, the key issues mirror the issues of concern raised by objectors.

It is considered that climate change is a reality and there is a need to transition to renewable energy. That transition is already underway and is supported by the State Government which has set a target requiring increasing renewable energy generation to 25 per cent by 2020 and 40 per cent by 2025.

The scale of solar energy facilities and the desirability of locating them close to the areas where the power is needed means they will be encouraged to locate in rural areas on the outskirts of townships and close to power lines that can carry the electricity generated from the farm into the grid.

However large scale facilities have the potential to adversely impact landscape values and visual amenity, and may also have other adverse amenity impacts. Renewable energy may enjoy widespread community support, but it would be true to say that landowners don't want to have them next door

To assist in the assessment of large-scale solar energy facilities, the Victorian Government has recently released a draft set of design and development guidelines (Draft – Solar Energy Facilities Design and Development Guidelines, DELWP, 2018).

The following assessment has been made with regard to the applicable zoning and other controls in the Central Goldfields Planning Scheme and also to the Guidelines.

Compliance with the requirements of Clause 53.13

It is considered the information submitted with the application satisfies the requirements of Clause 53.13.

The application includes the required site and context analysis, including a Module Array Layout plan at a scale of 1:4000. This is an aerial photograph over which a range of information including the following is superimposed:

- The site boundary

- Surrounding roads
- The location of the two proposed access points (comprising the main access on the Pyrenees Highway and a second access from Bald Hill Road)
- The area over which PV panels are proposed to be sited.
- Details of the existing drainage system
- The location of areas with ecological constraints (which are not proposed to be developed)
- Proposed 20m wide landscape buffer areas along the Pyrenees Highway and west boundary, together with proposed bushfire buffer areas
- Location of the proposed solar farm switching station at the northern corner of the facility adjacent to Bald Hill Road, and the point of connection to the power grid

The Module Array Layout photograph also shows a number of dwellings and associated improvements which are located along and on both sides of Bald Hill Road, and on the south side of Pyrenees Highway near the intersection with Bald Hill Road.

The supporting information submitted with the application includes a Planning Report prepared by Beveridge Williams and associated specialist reports (which are included as appendices to the Planning Report). The information satisfies most of the 'design response' information required under clause 53.13 and is considered sufficient to enable an assessment of the application. The material includes:

- A Site Context Plan showing the location of the subject site from Carisbrook (3.5 kms), Maryborough (10 kms) and Maldon (25 kms).
- Drainage Plan and Feature and Level Survey.
- A site development plan (which is essentially the same plan as the Module Array Layout plan).
- Technical drawings including a cross section of a Tracker which shows the solar panels when at their maximum elevation will have a maximum height of less than 4m; and plans and elevations of the Battery Container (with spacing for the DC/DC converter) and the Transformer Station.
- Landscape and Visual Assessment report. This includes visual simulations of how the solar farm will appear when viewed from the surrounding area and from key vantage points, and also includes information about the proposed vegetation screens which will reinforce the existing vegetation along the Pyrenees Highway and which is proposed along the west side of the site as a means of screening the solar farm from properties to the west.
- Cultural Heritage Assessment
- Flora and Fauna Assessment
- Glare Assessment

- Flooding and Drainage Assessment
- Proposed Access to Pyrenees Highway Plans
- Economic Impact Assessment

State Policy Directions

The draft solar energy facility guidelines require that proposals for the development of solar energy facilities must reflect the Victorian Government's key policy directions for Renewable energy, Water, Regional development and agriculture, and Biodiversity. It is considered that the proposed use and development is generally consistent with these directions.

In relation to the renewable energy directions, the Victorian Government has committed to renewable energy targets. It has set a target (VRET) which requires increasing renewable energy generations to 25 per cent by 2020 and 40 per cent by 2025. This will include 20 per cent for large scale solar power. The VRET policy also encourages investment in energy storage and new energy technologies. The VRET is supported by Victoria's Renewable Energy Action Plan. Whilst the actions are directed at Government, the present application is considered to be consistent with the Plan to the extent that the purpose of the plan is to encourage renewable energy generation. The present proposal is also consistent with Action 17 under the Plan which supports energy storage that integrates with renewable generation. In this regard, the battery storage proposed in conjunction with this solar energy facility is consistent with this action which is directed (among other things) at improving grid reliability and lowering prices by allowing low-cost power to be stored for times of high-cost and high-demand.

In relation to water, the proposal does not raise any issues as far as Victoria's water policy is concerned, and Goulburn Murray Water has no concerns about the proposal.

In relation to regional development and agriculture, the subject site is not identified as an area of agricultural significance in the Loddon Mallee South Regional Growth Plan. The Growth Plan encourages alternative energy development in the region.

In relation to biodiversity, the subject site contains four areas of endangered habitat, which are excluded from the development area.

Policy context, zone and overlays

The subject site is located within the Farming Zone, in which a renewable energy facility is an allowable use under the provisions of the Farming Zone subject to a planning permit.

The land is presently used for cropping and/or grazing. Although the use will remove the land from agricultural purposes for the foreseeable future, the land is not designated 'Strategic Agricultural Land' in the Loddon South Regional Growth Plan. As already noted, some loss of agricultural land has to be expected given the scale of solar energy facilities and their locational requirements.

In relation to the Farming Zone decision guidelines, it is considered that:

General Issues

- The proposed solar energy facility has policy support at State level. The relevant policies were noted above.
- The land (including its size and location close to Maryborough and Carisbrook) is suitable for the proposed use and development of a solar energy facility.
- The proposed use and development is generally compatible with adjoining and nearby rural land uses. There are a small number of dwellings located nearby however, that will be affected by the development, mainly due to the facility impacting on their existing view outlook.
- The proposed use and development makes good use of existing infrastructure and services, being easily accessed by the Pyrenees Highway and well located in relation to the electricity grid which the facility will need to connect to.

Agricultural issues and the impacts from non-agricultural uses

- The use and development will not prevent the ongoing use of surrounding land for agricultural purposes.

Environmental issues

- The use and development will result in the protection and enhancement of the flora and fauna on the site through the protection of four habitat areas and the planting of native vegetation buffers along the south and west boundaries of the site.

Design and siting issues

- The solar panels will occupy most of the 300ha site and will therefore be seen from outside of the site. The proposed native vegetation landscape buffer along the southern and western boundaries of the site will reduce the visual impact of the facility when viewed from the Pyrenees Highway and properties to the west. The visual impact is further discussed later in this assessment.

Agricultural values

All Victorian planning schemes contain strategies to protect agricultural land. The relevant policies (e.g. Clause 14.01 – Agriculture: Protection of agricultural land) have been noted earlier in this assessment, and are reinforced by the Farming Zone purposes and decision guidelines. Responsible Authorities are required to have regard to the agricultural quality of the proposed site, including whether it is strategically significant agricultural land, and the potential impact of removing the land from agricultural production.

The draft DELWP guidelines for solar energy facilities provide responsible authorities with guidance in assessing the impacts of removing land from agricultural production. The guidelines include a table (Table 1 at page 12) which sets out the land and economic attributes of strategically significant agricultural land.

With regard to land attributes, the subject land can be said to have versatile soils that are suitable for a range of cropping, horticulture and pasture purposes, but is not located within an irrigation district.

With regard to economic (structural) attributes, the land is of a size which favours sustainable agricultural production, but is not in an area with any particular advantages in terms of matters such as access to post-gate processing and value adding, industry clusters, or access to markets. Similarly, this area does not attract any significant government investment targeted at food production and other agricultural economic development, and does not enjoy any particular advantages as far as commodity market trends.

The guidelines note that in most rural areas, renewable energy generation such as solar energy facilities can effectively co-exist with agricultural production. It also notes that solar energy facilities can contribute to the rural economy and support farm incomes by providing property owners with a diversified revenue stream.

In essence, in terms of the agricultural value of the subject land, the issue is whether the use and development of the land for the purpose of a renewable energy facility (solar farm) will result in an unacceptable impact on agricultural production in the region.

The subject land is acknowledged as being locally productive farming land, but is not identified as being strategically significant agricultural land in the Loddon Mallee South Regional Growth Plan.

The Economic Impact Assessment (EIA) report submitted with the application addresses the potential impact of the proposed facility on agricultural activity. Victoria comprises three natural resource management regions (Goulburn-Broken, North Central, and Corangamite), with the subject land being located in the North Central Natural Management (NRM) Region. The report states that the NRM Region contains approximately 1,970,000ha of productive agricultural land supply and that the subject land (300ha) comprises 0.02% of this productive land supply. The EIA report concludes that the loss of this productive agricultural land is acceptable in a regional context and allows for increased income compared with continuation of existing activities on the land.

The EIA report also notes that the proponent is looking at ways to facilitate ongoing sheep grazing on the site around and beneath the solar structures. At Council's briefing hearing on 4 December 2018, the proponent's representative advised that the company encourages such grazing activity by the landowners, and that generally the carrying capacity of a solar farm site would be around 60% of predevelopment levels.

Finally, the EIA report notes that the subject land can ultimately be rehabilitated to its original condition at the end of the project when all the above ground infrastructure is removed, and that this would allow cropping, sheep grazing or other farming activities to recommence.

Council officers accept that the agriculture land and the current land-use and productivity has value and, that value may be increased with additional investment into the land. Council must also accept that alternative uses for agricultural land can be proposed and must make a decision on the application before it. In this instance, as noted above, the region has approximately 1,970,000ha of productive agricultural land supply, of which this individual site is a part. The loss of this site in the regional context is considered acceptable. This does not set a precedent for other sites and the loss of additional land (where any proposal must be considered on its merits).

Heritage and Aboriginal cultural values

The application includes a supporting letter from heritage consultant, Archaeology at Tardis, that advises:

- The subject land is not within a legislated area of Aboriginal cultural heritage sensitivity as described in the Aboriginal Heritage Regulations 2018 (Part 2, Division 3) and the proposed activities are not considered to be high impact under the Regulations (Part 2, Division 5). Therefore the triggers for the preparation of a Cultural Heritage Management Plan do not apply.
- An examination of the Aboriginal Cultural Heritage Register Information System (ACHRIS) revealed the area is not situated within a legislated area of Aboriginal cultural heritage sensitivity, and that there are no registered Aboriginal heritage places within the activity area or within 50m of its boundaries. The ACHRIS search also showed that the area has not previously been subject of archaeological survey.
- Since European settlement, most of the land surrounding Carisbrook has been used for grazing purposes. Past and recent land use activities included the clearing of trees, repeated ploughing, and long-term grazing. An aerial photograph from 1946 shows that land in proximity to the activity area had by then been cleared of natural vegetation and was being used primarily for grazing.
- There have been no previous cultural heritage assessments relevant to the project area.
- There is no heritage overlay applicable to the activity area.

On the basis of the above, and Council officers own assessment, it is considered that the proposed Carisbrook Solar Park does not require the preparation of a mandatory CHMP because the project infrastructure will not be constructed within an area of legislated cultural heritage sensitivity.

Biodiversity and native vegetation

A Flora and Fauna Assessment report prepared by Biosis was also submitted with the application. This identifies the key ecological values within the study area as being:

- 1.21 ha of native vegetation and two scattered trees.
- Some sections of the road reserve which also contain native vegetation.
- Remnants of Plains Grassland which exist within the area. Plains Grassland is considered an endangered ecological community within the Victorian Volcanic Plain bioregion.
- A patch of native vegetation present within the study area which meets the definition of the nationally threatened ecological community 'Natural Temperate Grasslands of Victoria Volcanic Plain' which is a listed FFG Act community, and 'Western (basalt) Plains Grassland' community.
- That the area contains potential habitat for five EPBC listed (significant) species.
- That the area includes plantations of a mix of native and non-native species

- The area includes extensive areas of land depleted of native vegetation, currently used for cropping and grazing.

The report includes an assessment of the project in relation to key biodiversity legislation and policy and concludes that:

- As the current design does not affect areas of Plains Grassland EVC, no referral under the EPBC Act is required. However if future designs impact these areas then a targeted survey for the Striped Legless Lizard and Golden Sun Moth will be required.
- A permit is not required under the Flora and Fauna Guarantee Act.
- As no native vegetation is to be removed, there is no requirement for a planning permit for removal of native vegetation.
- The Catchment and Land Protection Act 1994 is not applicable.

No offset planting is required because the proposed facility avoids all areas of native vegetation. In this regard, the project has been designed to avoid:

- mapped areas of natural temperate grassland containing native grass and which potentially provides habitat for four EPBC listed species;
- scattered trees which potentially provide habitat for the Swift Parrot; and
- potential habitat for the Legless Striped Lizard.

The design plan nominates various vegetation/habitat areas which are to be 'retained'. These areas are to be treated as no-go zones and are not to be encroached upon as development progresses, and it is recommended that this be enforced by permit condition.

It is also recommended that the suggestions made by DELWP in its referral response also be given effect to by way of permit conditions. These suggestions include the provision of a 30m wide supporting buffer between the edge of the solar panels and any native vegetation as a means of protecting the vegetation during the construction phase; for fire suppression reasons, and to protect vegetation from the heat that will form around the panels (the heat island effect). DELWP has also suggested that protective temporary fencing also be provided at a distance of 15m from vegetation areas, as a further means of protecting the vegetation during the construction phase.

The native vegetation provisions to Clause 52.17 of the Central Goldfields Planning Scheme require native vegetation removal to be avoided where possible. In this instance, the retention of the various vegetation/habitat areas as no-go areas would achieve this.

Landscape values and visual amenity

One of the main issues of concern to objectors is the potential visual impact on adjoining and nearby properties.

As noted earlier in this assessment, there are a number of dwellings to the west of Bald Hill Road which enjoy an easterly outlook over the Moolort Plain which includes views towards extinct volcanoes (Mt Moolort and Mt Tarrengower). The subject land comprises the middle ground in this view outlook.

The application supporting material includes a Landscape & Visual Assessment by Xurban (Allan Wyatt) which shows the visual impact implications on viewers using the Pyrenees Highway and the local road network as well as from residential properties within the viewshed of the solar farm. The report also describes the landscape design that responds to this setting.

The proposed landscaping will consist of a landscape buffer along the west and south sides of the solar farm. The proposed buffer is illustrated in Attachment 2. The landscaping will consist of indigenous species comprising (common names) Blackwood, Black Sheoak, Dropping Sheoak, Buloke, Yellow Gum and Grey Box. These will complement the existing trees located within the Pyrenees Highway road reserve and other road reserves in the surrounding area.

The methodology for undertaking the visual assessment is detailed in the Landscape & Visual Assessment report and is considered appropriate. The viewshed is defined based upon the elevations of the proposed components within the solar farm and the parameters of human vision.

The Landscape & Visual Assessment by Xurban (Allan Wyatt) assessed visual impact from a number of different locations is assessed and photomontages have been prepared for some of these viewpoints. The following table describes the impact on views from each of these viewing points after the landscape buffer has been planted (and has reached maturity).

| View Point | Description |
|--|---|
| VP1 – Pyrenees Highway, about 250m west of the solar farm’s south west corner. | This section of the Pyrenees Highway is bordered by Sugar Gums and whilst the solar farm would initially be visible, this would be momentary as one passed along the highway. The visual impact after construction is assessed as Low. However as the proposed vegetation matures this would reduce to nil, and could become positive for some people due to the border of trees. The report does not include a photomontage for this viewpoint given that there would ultimately be no view of the solar farm. |
| VP2 – Pyrenees Highway, at the eastern end of the solar farm. | A photomontage has been prepared showing that the solar farm would appear as a low element in a very expansive landscape. The proposed landscape buffer planting would ultimately completely screen any view of the panels from this viewpoint. As with viewpoint 1, the visual impact would be Low and will ultimately reduce to nil and would possibly become positive for some people due to the landscaping. The landscaping would screen Bald Hill from view. |

| | |
|--|--|
| VP3 – Pyrenees Highway, about 450m east of the edge of the solar farm | The solar farm may be just visible from VP3 in the short term. The visual impact is assessed as Negligible. |
| VP4 – at Buttons Lane (to the east), approximately 2.4kms from the solar farm | A slight ridge between this location and Bald Hill would screen any view of the solar farm. The visual impact of the solar farm from VP4 is therefore assessed as Nil. |
| VP5 – at the corner of Boundary Road and Baringhup Road, approximately 2.7km from the solar farm. | Because of the distance and intervening vegetation, the solar farm would be barely visible from this viewpoint. Therefore the visual impact is assessed as Negligible. It is also noted that this is a little used road. |
| VP6 – is located on the northwest corner of the solar farm where Bald Hill Road crosses the railway line. | The solar panels would be visible in the immediate foreground, however given the low usage of this road and the horizontal nature of the solar farm, the visual impact from VP6 is assessed as Low. |
| VP7 is the viewpoint from the residence at 1069 Bald Hill Road. The dwelling is located about 700m west of the solar farm and has an elevated view over the farm. | <p>The view from the dwelling is a panoramic view over a rural landscape with mountains in the background. A photomontage has been prepared which shows the solar panels would be visible in the middle distance, with the impact being assessed as Medium.</p> <p>A second photomontage shows the impact of the solar panels can be reduced by planting along the western edge of the solar farm. The planting would not block the views to the plains to the east of the solar farm or of the mountains beyond. The report describes the view that would remain of the solar panels as an “intriguing element in the view” and assesses the visual impact once the planting is established as Low.</p> |
| VP8 is the viewpoint from another residence at 320 Donovans Road which is also located at the side of Bald Hill Road, but slightly closer (590m) to the boundary of the solar farm than the dwelling at VP7 (which is 700m from the solar farm). | The dwelling at VP8 does not enjoy the same panoramic landscape views as the dwelling at VP7 due to being at a lower elevation and because the view is constrained by existing garden planting. The solar panels may be visible in the middle distance, but the level of visual impact is assessed as being Low to negligible. |

The conclusion reached in the Landscape & Visual Assessment report is that the proposed solar farm is appropriately sited and will have a minimal visual impact and that the landscape

setting which is proposed to be established is consistent with the landscape of the Bald Hill area.

The views of the solar farm from the Pyrenees Highway are assessed as being Low to Negligible, while the views from the local road network are assessed as being Low.

There are only two dwellings that will have a visual impact, only one of which has a panoramic view over the subject site. The Landscape & Visual Assessment report concludes that the impact on the view from that property would be partially mitigated once vegetation was established.

In response to concerns about the time it will take for the proposed vegetation screen to grow to a height that provides any effective screening, IBV was asked whether in the event that Council might support the grant of a planning permit, it would be agreeable to a condition that would require the landscaping to be planted prior to the commencement of construction. IBV's responded that it would be willing to undertake the planting prior to construction, but did not wish to see construction delayed if the planting has to be undertaken at a particular time of the year. Whilst IBV's concerns about delaying construction are appreciated, and notwithstanding that it will take several years before the proposed vegetation reaches a height that will provide effective screening, it is considered that it would be an act of good faith for the landscaping to be planted prior to the commencement of construction and that this would be required by Council by way of permit condition.

Glare Impacts

A report by Environmental Ethos has been submitted with the application which assesses the potential glare impact of the proposed solar farm. The methodology for the assessment is described in Chapter 3 of the report.

The first step in the methodology is to identify the glare assessment parameters relevant to glare assessment modeling for solar farms. The location of sensitive receptors (viewers) and the screening potential of surrounding topography and vegetation are two of the factors considered in this modeling (and are matters which were addressed in the Landscape and Visual Impact Assessment Report which has already been commented upon above).

The second step in the methodology is to identify glare intensity categories. There are broadly three categories which refer to the human experience of reflected light, being:

- Low potential for after-image
- Potential for after-image; and
- Potential for permanent eye damage

Having identified the glare assessment parameters and glare intensity categories, the methodology then progresses through Reflection and Angle of Incidence, View shed analysis, Solar Glare Hazard Analysis, establishment of baseline conditions, and Risk Assessment Approach.

The assessment took into consideration the operation of the Solar Farm during daylight hours throughout the year, with the modeling calculating the potential for glare at 1 minute intervals. The modeling assumed a sun energy intensity which is double the standard used in US

Federal Aviation Administration modeling, and also made no allowance for atmospheric conditions such as cloud cover, dust and haze which might impact light reflection.

Based on the assumptions and parameters used in their desktop assessment the report by Environmental Ethos concludes that the results of their assessment were:

- *No glare potential was identified for surrounding existing rural dwellings during normal operation of the solar farm. The likely impact on these sensitive receptors within the viewshed was therefore identified as insignificant.*
- *No glare potential was identified for the Pyrenees Highway or surrounding roads during normal operation of the solar farm.*
- *Operation of a backtracking process up to an angle of 30 degrees was tested in the modeling with no increase in glare potential.*
- *Reverting or 'resting' the solar panels in a horizontal position (resting angle of 0 degrees) during the early morning and late afternoon resulted in the model identifying increased angles of incidence of the sun relative to the panels causing potential glare affecting minor roads (Bald Hill and Donovans Road) to the west of the project. However the proposed landscape screen planting on the western boundary will mitigate this glare potential.*
- *To avoid potential glare impacts prior to the establishment of the screen planting, the solar farm should be operated within the following parameters:*
 - *Operation of a single axis tracking system with a maximum rotation of 60 degrees and a resting angle of 60 degrees.*
 - *Backtracking procedures to operate within normal parameters to maintain low angles of incidence relative to the sun.*
 - *Avoid 'resting' PV modules at 0 degrees, horizontal to the ground, notably during early morning due to potential increase in glare as identified in the modeling.*

Based on the above expert analysis and these points being included as a permit condition, it is considered that glare should not be an issue. A condition of any permit issued needs to require the interim step of limited rotation as set out in the last dot point above, to be included to ensure glare is not an issue.

Heat Island Effect

Expert evidence about "heat island effect" was considered at the recent Panel Hearings in relation to the Shepparton solar facility application nos. 2017-162, 2017-274, 2017-301 and 2017-344 (Panel report dated 23 July 2018 relates).

The term "heat island effect" is generally used to describe increased temperatures in urban areas compared to surrounding rural areas, and the evidence presented at the Shepparton hearings addressed whether a similar effect is caused by PV farms (the photovoltaic heat island (PVHI) effect).

The Panel accepted there is sufficient scientific evidence to determine that no proposed solar energy facility will increase temperature beyond 30 metres. The Panel noted however that the

solar arrays will affect air and soil temperatures within the perimeter of a solar array, but that this is able to be managed.

Based on the tested evidence presented at the Shepparton hearings, and having regard to the siting of the proposed solar panels in relation to property boundaries, it is considered there will be no adverse heat island effects on adjoining properties as a result of the proposed development. It should be noted however that DELWP has recommended a condition that requires the edge of the solar panels to be no closer to the boundary screening vegetation than 30 metres and that this is considered desirable for all of the reasons given by DELWP.

In summary, as far as the Carisbrook solar farm proposal is concerned, it is considered on the basis of the 'heat island effect' evidence accepted by the Shepparton Panel that:

- The proposed landscape screening buffers along the west and south boundaries, combined with the recommended condition (condition 1a) requiring the layout plan to be modified to provide for a 30 metres minimum separation between the edge of the solar arrays and the edge of the buffer should ensure that the properties to the west (which include vineyards) and south will not be adversely affected by heat island effects. The properties to the south are in any event further separated from the subject land by the Pyrenees Highway.
- The Environmental Management Plan which is required pursuant to the recommended permit conditions can further address operational measures to minimise any heat island effects. The evidence suggests that natural convection benefits can be facilitated at night by PV arrays not being held in the horizontal overnight is considered a setback of 30 metres would be adequate.

Flooding and Drainage

The Flooding and Drainage Assessment report describes the subject land as moderately undulating with a defined natural depression beginning at the boundary fence at the Pyrenees Highway and falling in a north east direction in a sweeping meandering alignment. There are also various other drainage characteristics, including a centrally located depression close to two pipes that form a subway under the railway line to the north. Overall there is a 24m fall from the south of the property to the north.

The combined soils types (medium and lighter clay loams) and the sloping terrain is ideal for shedding water during high rainfall events.

A drainage scheme is proposed which would direct water to the two subway pipes under the railway line. Lateral surface drains at the base of the proposed blocks of solar panels will outfall to the main outfall drains which are aligned with the centre of the depressions found within the site.

The solar panel layout has been designed to avoid the natural depressions. This is evident on the Module Array Layout Plan which shows various rectangular shaped areas within the property over which solar panels will not be installed.

The proposed solar panels will be affixed on frames which will be at least 0.5m from the natural surface and will therefore not be affected by any flood events across the property. Similarly the inverters will be elevated on 300mm concrete blocks which will allow any water to pass under. The security fence around the periphery of the site will also allow the passage of water.

The drainage plan was prepared in consultation with the North Central Catchment Management Authority (NCCMA) to ensure any issues raised by the NCCMA were addressed. Following feedback from the NCCMA, the following conclusions were made:

- The assessment site is not subject to the 100 year ARI flood level.
- Buildings operations) will be raised above the ground but are not subjected to the 100 year ARI flood level.
- The solar panels and inverters will not impact flood flow as the property has not experienced a 100 year ARI flood level.
- Access tracks between the banks of solar panels will be kept to a minimum height and tracks through depressions will be gravelled.
- Solar panels can be raised as they are a tracking device and this will prevent any obstruction to flow in the unlikely event of a 100 year ARI event.

Fire Risk

The subject land is not within a bushfire management overlay, however along with much of central Victoria is within a bushfire prone area (BPA). This means that relevant bushfire protection measures are in place to manage risk. When considering bushfire risk relevant policy and strategies are identified at clause 13.02-1S (Bushfire planning). Consistent with the strategies at that clause, the Country Fire Authority (CFA) has reviewed the proposal and made recommendations relating to siting, access, water supply, the storage and handling of dangerous goods, construction management, site operation, vegetation management, and emergency management. Relevant CFA recommendations are included in recommended conditions in this report.

It is noted that the CFA's recommendations are generic and relate to all renewable energy facilities, including wind farms. For that reason and to ensure appropriate further consideration is given to the specific requirements by Council and the CFA, the recommended conditions include a requirement to prepare various detailed work plans including a fire management plan, bushfire risk assessment, fuel reduction and maintenance plan and an emergency management plan.

Notwithstanding the CFA requirements, concern about fire risk was raised by a number of the objectors. In response to these concerns, IBV have advised that there is no evidence solar arrays cause fires or that they emit toxic fumes and it is their intention to ensure emergency management practices are enforced on the site and will ensure that fire management is of high priority. IBV also want to protect their project (asset) from the risk of fire.

It is noted that

- The risk of grass fire as a result of the proposed solar farm is likely to be reduced for the simple reason that there will be less grass than would be the case if the subject land was to continue to be used for grazing purposes. This is because of the areas that will be taken up with solar panels, roads, drainage lines and other improvements.
- The solar panels themselves present a minimal risk because the material used in their manufacture consists mostly of glass, silicon, steel, aluminium and only small amounts of plastic. The frames themselves are set in concrete.
- Fire service crews (CFA) will be expected to undertake on site familiarization.

Noise, Light and other potential amenity impacts

The solar farm may generate low levels of noise, but this is unlikely to affect the amenity of the area given the distances between the solar farm and sensitive uses (dwellings in the surrounding Farming Zone).

The Panel for the Shepparton solar facility concluded that solar energy facilities are expected to comply with relevant Environment Protection Authority noise guidelines, and recommended a permit condition which references the EPA Publication 1411 Noise from Industry in Regional Victoria, 2011 for the operational phase and EPA Publication 1254, Noise Control Guidelines, 2011 for the construction phase to clarify which guidelines need to be met. It is recommended that a permit condition to this effect also be included in the permit for the present application.

Lighting

The applicant advises that no continuous night time lighting will be installed. However lighting would be available at each inverter station and the substation for maintenance or emergency purposes. There would also be security lighting at the operation and maintenance building near the entry to the site.

Concerns about night-time lighting are addressed by a permit condition requiring any site lighting to be baffled to prevent light spillage beyond the site. It is considered the landscape buffers will also mitigate against night-time lighting.

Electromagnetic interference (EMI)

Several objectors have raised concerns about the potential for EMI.

IBV advises the EMI risk will be negligible because all EMI sources (the inverter stations) are placed at a sufficient distance (greater than 30 metres) from the boundaries. IBV also advises that the cumulative effects of the proposed solar farm will not exceed safe limits for Human Exposure to EMI and a requirement to meet the relevant standard is included in recommended conditions.

Council Officers have found no evidence of solar farms impacting on radio or television reception.

Access to the Victorian electricity grid

The proposal would be linked to the existing power lines located on the west side of Bald Hill Road.

Cumulative effect of solar energy facilities in the area

This is the first proposal for a solar energy facility to be considered by Central Goldfields Shire Council.

Another solar facility (for 75 MW) has been proposed at Baringhup in Mount Alexander Shire. However this has not yet been the subject of a planning permit determination.

Traffic and Access

The applicant advises that there may be upwards of 240 workers at the site during the construction phase which is estimated at being approximately 7 to 9 months duration.

At peak periods, there could be up to 160 heavy vehicle movements per week (return trips count as 2), and up to 220 light vehicles per day. These levels of traffic can easily be accommodated by the road system (i.e. Pyrenees Highway).

Once complete, the facility would employ 5 full-time employees for maintenance. Council's Infrastructure department have considered the proposal including a secondary access point to Bald Hill Road. Given the current level of service for the road and the proposed increase in use a recommendation has been made to require improvements to the Bald Hill Road pavement.

It is recommended that any permit contain a condition requiring a Construction Management Plan (CMP) be prepared to the satisfaction of the Responsible Authority. Matters such as the designation of areas for the parking of tradesperson vehicles could be addressed in such a plan.

A Site Access Functional Layout Plan showing the proposed access arrangements at the Pyrenees Highway was submitted with the application. VicRoads has requested a condition requiring the access to be constructed generally in accordance with this plan.

VicRoads has also requested a condition requiring the preparation of a Construction Traffic Management Plan (CTMP) prior to the commencement of construction. This must address, in particular, heavy vehicle haulage routes, possible pavement deterioration due to construction traffic and the identification and remediation of damage.

Other Amenity Impacts

Most potential amenity impacts including visual amenity have been addressed in specialist assessment reports submitted with the application, and are discussed above.

Other potential impacts such as increased traffic and associated air pollution (dust) during the construction period are matters common to most construction projects. These matters are usually addressed by way of a Construction Management Plan, which is typically and recommended here, to be required by way of a permit condition.

Economic Impacts

An Economic Impact Assessment (EIA) by Essential Economics (August 2018) was submitted with the application.

The EIA notes that the project will involve approximately \$100 million in investment during the 7 to 9 month construction phase, and will support 240 direct and 380 indirect positions over this period. Once operational, the facility will support 5 direct jobs and 15 indirect jobs.

Importantly the project will provide significant participation opportunities for businesses and workers in the Study Area (comprising the LGAs of Central Goldfields Shire, City of Greater Bendigo, City of Ballarat, Mount Alexander Shire and Hepburn Shire), with the EIA noting that there is a good match of skills and resources available in this area.

The EIA estimates that construction workers will inject approximately \$430,000 into the local economy in the construction phase. There would also be a demand for local accommodation for about 60 project workers during the construction peak. The three landholders on whose properties the facility is to be built will also benefit by annual drought-proofed income returns

over the 25 year leasing period for the facility (with the potential for a further 5 year extension). There is also a potential for the facility to generate tourism opportunities, attracting potential visitors including environmentalists, researchers, eco-tourists, and school and education groups.

The facility will also produce national grid benefits. In a regional context, the facility has the potential to provide the annual electricity needs of approximately 42% of the Study Area's dwellings and will reduce CO2 emissions by approximately 168,000 tonnes per year.

Objectors' Concerns

Most of the concerns raised by objectors have been addressed in this assessment. However a number of additional matters raised by objectors are commented upon below.

In response to objections that the application has been made in the absence of policy guidance for large scale solar farms, it is considered that this has been addressed to some extent by DELWP's Draft Solar Energy Facilities Guidelines. In addition, further guidance is also provided under the Planning Policy Framework and in the existing planning scheme controls, including clause 53.13 which relates to renewable energy facilities of this type.

In response to objections that there may be more suitable sites for this facility, the issue here is that Council must assess the application before it. For the reasons addressed in this assessment, it is considered that the subject site is suitable for the use and development of a solar facility. In addition however, the proponent has advised its reasons for selecting this particular site at Carisbrook in preference to other possible sites include:

- That compared to other areas of Victoria, this area has an excellent solar resource which would enable the project to generate a significant amount of clean electricity.
- The site is predominately flat and has a suitable soil profile to allow easy access and constructability.
- The site is owned by accommodating landowners who are willing to have the solar farm on their properties.
- The site is in a rural setting as opposed to a built-up area with a large number of sensitive receptors.
- The site is located within close proximity to existing electricity infrastructure, there is good access to the transmission network, and there are high levels of available capacity on the grid transmission system.
- The site has been heavily disturbed from past and current agricultural activities and there are low environmental constraints.
- The location, site attributes and the heavy disturbance of the land means the proposal will have low environmental impacts.
- The site is not subject to land hazards such as excessive flooding or significantly high bushfire risk, and the land is not known to be contaminated.

- The proposal is not likely to generate land use conflicts with surrounding land uses and is compatible with land use zoning.
- The site is located in an area with suitable road access.

In response to concerns that the proximity of the solar panels to the railway line could prevent the straightening of the railway line if it is ever opened again to passenger use, this is an issue that would need to be addressed in the future if such a proposal was ever mooted. If a new alignment for the railway was ever proposed, this would require an amendment to the Planning Scheme to include the land in a Public Acquisitions Overlay.

In response to concerns about the absence of information about how the site would ultimately be decommissioned, it is considered that requiring this information now is premature, but that a permit condition should be included which requires the information to be submitted at the appropriate time.

Alternative Options

Council could choose to issue a Notice of Decision to Refuse a permit. For the reasons outlined in this report, this is not recommended by Council officers

CONSULTATION/COMMUNICATION:

The planning application was advertised in accordance with Section 52 of the Planning and Environment Act 1987 by way of the following:

- Placing two signs on the subject land. One at the Pyrenees Highway frontage of the site and one at the Bald Hill Road frontage of the site.
- Sending notices to all adjoining and surrounding landowners and occupiers within 1.5km of the site.
- Placing a notice in the Maryborough Advertiser and Carisbrook Mercury.

Twenty-two (22) submissions were received in response to the advertising of the application.

Eighteen (18) of these are from objectors, which include the owners of two dwellings to the west of Bald Hill Road. The grounds of objection include:

- The application has been made in the absence of policy guidance for large scale solar farms.
- It is inconceivable that there are no better sites in the 80km radius around Bendigo where the land has less agricultural value and where there are fewer local permanent residents that could be negatively impacted.
- The Moolort Plains is a highly productive agricultural area, with the soils around Bald Hill (Mount Moolort) being the most productive in Central Goldfields Shire.
- The visual impact of the solar farm when viewed from properties on the west side of Bald Hill Road.
- The potential for glare.

- That the solar farm will adversely affect the beauty of the Moolort Plains, which is an area of natural beauty with sight corridors/views towards extinct volcanoes (Mt Moolort and Mt Tarrengower).
- That the proposed native tree buffers will also obscure the beautiful vistas.
- That the proposed tree buffers will take too long to grow.
- That the visual impact on the night-time environment has not been addressed (i.e. the impact of industrial-scale lighting).
- That the location of the solar farm in the north-west corner of the land could prevent the straightening of the railway line in the event the Castlemaine Railway is ever opened again to passenger use. If this occurred, it is suggested that the line would need to be straightened to allow for high speed rail.
- That the proposed switching station should be relocated further to the south to allow for a realignment of the railway in the future.
- Increased traffic on Bald Hill Road during the construction of the facility, including potential damage to roads. There is objection to Bald Hill Road and Donovans Road being used for construction access.
- Air pollution that could be caused due to dust impact from use of Bald Hill Road during and after construction.
- Fire risk has not been addressed, and that there is a potential for the solar panels to cause fire.
- Electrical noise (static) produced by the inverters and its effect on TV and radio reception in the area.
- That the solar panels will act as a heat sink and cause an associated temperature rise in the area.
- The potential loss of amenity of the area and especially to owners of neighbouring properties (minimum of 5 properties) for all of the reasons noted in the various objections.
- Impact on the security of adjoining properties (that strangers have allegedly entered adjoining properties without permission to view the site of the solar farm).
- That the proposal will not generate local employment because the construction and operational labour will be brought in from outside the area.
- The proposal will have an adverse impact on tourism and will deter visitors.
- The application does not address how the site would be decommissioned and the land brought back to its original state.
- Potential for soil erosion when the rain falls off the panels.

Other objections such as loss of value and the politics behind the application are noted, but are not legitimate planning considerations.

Three (3) of the submissions are supportive of the application for reasons including that renewable energy is required to reduce our environmental footprint; that the proposal will bring economic benefits to the region; and that the subject land can still be used for sheep grazing (i.e. that the land will not be lost to agriculture).

Prior to the lodgement of the application, the community consultation was undertaken by the applicant including community drop in days and the development of a website with information regarding the proposal available for public viewing. Given this level of previous consultation no additional applicant/objector meeting was undertaken, however, the applicant was informed of the objections and comment sought directly from the applicant.

FINANCIAL & RESOURCE IMPLICATIONS:

The assessment of planning permit applications is within the normal operational budget of Council.

Should any party (applicant or objector) appeal the determination of the application (permit condition or issue of permit) additional VCAT appeal costs will be incurred.

CONCLUSION:

The subject site is currently used for farming purposes (grazing, cropping).

Planning application 094/18 proposes the use and development of a renewable energy facility (90 MW solar farm), and creation of an access to a road in a Road Zone Category 1, and associated works at 3348 Pyrenees Highway, Carisbrook; 3080 Pyrenees Highway, Moolort; and 160 Bald Hill Road, Carisbrook.

The applicant provided various expert evidence reports regarding flora and fauna, economic impact, traffic, drainage & water flow, heritage, glare and visual assessment. An assessment of the proposal has been undertaken and it is considered that the application accords with relevant policy, and the objectives of the zone, overlays and particular provisions.

Twenty-two (22) submissions including eighteen (18) written objections have been received following public notice of the application.

The responsible authority must determine a position on the application for a planning permit and take one of the following options:

- I. Approve a planning permit and issue a Notice of Decision (NOD) to Grant a Planning Permit for the proposal (with or without conditions) – appeal rights apply to the objectors and applicant (regarding any conditions)
- II. Issue a Refusal to Grant a Planning Permit for the proposal – appeal rights apply to the applicant

It is recommended that a Notice of Decision to Grant a Permit be issued including conditions to manage construction and the on-going use of the site as a solar farm

ATTACHMENTS:

1. Development plans including an aerial photograph of the subject land and environs
2. Planting Buffer Plan

RECOMMENDATION:

That Council consider the planning permit application PA094/18, objections received and all matters required to be considered for the Use and Development of a Renewable Energy Facility (solar farm), access to Pyrenees Highway (RD1Z) and associated works at 3348 Pyrenees Highway, Carisbrook: 3080 Pyrenees Highway, Moolort; and 160 Bald Hill Road, Carisbrook (Crown Allotments 13A, 13B, 13C, 14A, 14A1, 14B, 14B1, Section 4, Lots 1, 3, 5, 6 & 7 on TP098420N) and determine to issue a Notice of Decision to Grant a Planning Permit subject to the following conditions:--

1. Amended Plans Required

Before the developments starts, plans to the satisfaction of the Responsible Authority must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be generally in accordance with the plans submitted with the application but modified to show:

- a) A 30 metres minimum separation between the edge of the solar arrays and the edge of the four ecologically constrained areas identified in the Flora and Fauna Assessment report (Biosis, 2018) and the edge of the native vegetation buffers along the south and west boundaries of the facility.*
- b) A 10 metres wide fuel-reduced area around the perimeter of the site which is to contain a perimeter road complying with the CFA access requirements. This fuel-reduced area may be constructed within the 30 metres buffer areas described in (a) above, but the perimeter road must not itself be closer than 15 metres from the edge of these areas.*
- c) The location of the static water supply tanks required for fire suppression purposes.*
- d) Detailed planning drawings of the development including floor and elevation plans of all proposed buildings, access roads and parking areas.*

Before the use of the solar energy facility commences, all buildings and works as shown on the endorsed plans must be completed to the satisfaction of the responsible authority.

2. Layout not altered

The use and development of the land for a solar energy facility as shown on the endorsed plans must not be altered or modified except with the prior written consent of the Responsible Authority.

3. Decommissioning Plan

The following requirements must be met when the solar energy facility permanently ceases operation:

- a) *Within three months of the solar energy facility use ending, a decommissioning management plan prepared by a suitably qualified person must be submitted to the satisfaction of the responsible authority. When approved, the plan will be endorsed and will form part of the permit. The plan must include but is not limited to:
 - i. *identification of structures to be removed, including but not limited to all solar panels, substation, buildings if they are not useful for ongoing use) and electrical infrastructure;*
 - ii. *details of how the land will be rehabilitated to allow it to be used for agricultural purposes (or proposed alternative use).**
- b) *Within 12 months of the endorsement of the decommissioning management plan, the decommissioning must be completed to satisfaction of the responsible authority*

4. Access

- a) *Primary vehicular access to and from the property must be provided from the Pyrenees Highway. Only this access must be used during the construction phase of the development.*
- b) *Secondary vehicle access via Bald Hill Road is permitted for ongoing use and development subject to upgrading the road from the Pyrenees Highway to the proposed access point to meet the Rural Access 1 (RA1) standard as defined in Councils Road Management Plan (RMP). In addition a vehicular crossover/driveway in accordance with IDM standard drawing 255 must be installed. All work must be undertaken to the satisfaction of the Responsible Authority and prior to the commencement of development of the site.*
- c) *The applicant/owner must make further application for and have approved a driveway crossing permit for crossover/driveway works. All works constructed or carried out must be in accordance with the approved plan/permit.*
- d) *Once constructed the crossover must be thereafter maintained by the landowner to the satisfaction of the Responsible Authority.*
- e) *Any disused crossovers are to be removed and replaced with table drain and the nature strip levelled to the satisfaction of the Responsible Authority.*

5. Water Supply

- a) *The location of water access points and the quantity of water supply is to be established through a comprehensive risk management process that considers the credible on site hazards. In the event of a fire (either Structural*

Fire or Bushfire), sufficient water is to be available and accessible to fire appliances to ensure that fire suppression activities are not hindered in any way. Water access points are to be clearly identifiable and unobstructed to ensure efficient access.

- b) Static water storage tank installations are to comply with AS 2419.1 and the following additional conditions:*
- i. The static water storage tanks shall be of not less than 45,000 litres effective capacity and must be above ground and constructed of concrete or steel. The location and number of tanks should be determined as part of the site's risk management process and in consultation with a CFA Delegated Officer.*
 - ii. The static storage tanks shall be capable of being completely refilled automatically or manually within 24 hours.*
 - iii. The static storage tanks shall be fitted with a hard suction point and connections and adapters which meet the requirements of the CFA.*
 - iv. Access to the hard suction points shall also meet the requirements of the CFA.*
 - v. An external water level indicator is to be provided to the tank and be visible from the hardstand area.*
 - vi. Signage identifying the static water storage tank as being available for fire-fighting purposes shall be fixed to each tank to the satisfaction of the CFA.*
 - vii. Signage indicating the direction to the static water tank(s) shall be provided at the front entrance to the site to the satisfaction of a CFA Delegated Officer.*

6. Loading and Unloading

- a. The loading and unloading of vehicles and the delivery of goods to and from the site must at all times be undertaken entirely within the boundaries of the site and be so conducted as to cause minimum interference with other traffic to the satisfaction of the Responsible Authority.*
- b. The surface of loading areas and access roads must be constructed and maintained to the satisfaction of the Responsible Authority to prevent dust and drainage run-off causing a loss of amenity to the site or broader area. All such surfaces and roads to be constructed to an all-weather standard to ensure all-weather use and access.*

7. Car parking

- a. *Prior to the commencement of use, areas on the subject land must be set aside for parked vehicles, crossovers, driveway and access lanes as shown on endorsed plans and/or approved engineering plans must be:*
 - i. *Constructed to the satisfaction of the Responsible Authority;*
 - ii. *Properly formed to such levels that they may be used in accordance with the plans;*
 - iii. *Surfaced with an all-weather standard to the satisfaction of the Responsible Authority;*
 - iv. *Drained and maintained to the satisfaction of the Responsible Authority.*
 - v. *Parking spaces, access lanes and driveways must be kept available for these purposes at all times.*
 - vi. *All parking spaces must be designed to allow all vehicles to drive forwards both when entering and leaving the property.*

8. Drainage

- a. *All storm water must be accommodated and treated within the subject land.*
- b. *All storm water and surface water drainage from the proposed buildings, hard standing areas, driveways and yards must be designed to be contained within the site and designed for storm water quality and quantity to comply with the Best Practice Environmental Management Guidelines for Urban Storm water (CSIRO) 1999 to the satisfaction of the Responsible Authority.*
- c. *The legal point of discharge of storm water is to be to the north of the site to the existing culvert under the Maryborough Castlemaine Rail line.*
- d. *A Stormwater Management Strategy detailing all proposed storm water quality works within the subject land must be submitted to and approved by the Responsible Authority prior to the commencement of any drainage works on site.*

9. Waste Disposal

- a. *The treatment of waste and litter from the operation of the site is to be undertaken in accordance with the endorsed Environmental Management Plan.*
- b. *No stockpiling of waste or litter is to occur on the site, all waste is to be disposed off site to the satisfaction of the Responsible Authority.*
- c. *All waste pick-up vehicles/trucks to be covered with secure covers, which are used to prevent dust or spillage of waste on departure from the site.*

10. Amenity

The amenity of the area must not be detrimentally affected by the use or development through the:

- *Appearance of any buildings, works or materials*
- *Emission of noise, smell, waste water and waste products.*
- *Presence of vermin*
- *Discharge of polluted water or run off onto the site and or watercourses within or outside of the boundaries of land*
- *Reflection, Glint or Glare from the solar panels*

11. Site Lighting

No external floodlighting shall be installed without the permission of the Responsible Authority

Where external lighting is provided (including security lighting) it must be fitted with suitable baffles and located so as to prevent the emission of direct light onto adjoining properties or roadways to the satisfaction of the Responsible Authority.

12. Glare

Prior to the screen plating being established and to the satisfaction of the Responsible Authority, the solar farm must only operate within the following parameters:

- a. *Operation of a single axis tracking system with a maximum rotation of 60 degrees and a resting angle of 60 degrees.*
- b. *Backtracking procedures to operate within normal parameters to maintain low angles of incidence relative to the sun.*
- c. *Avoid 'resting' PV modules at 0 degrees, horizontal to the ground, notably during early morning due to potential increase in glare as identified in the modeling.*

13. Noise

The use and development must comply with relevant Environment Protection Authority noise guidelines including the EPA Publication 1411 Noise from Industry in Regional Victoria, 2011 for the operational phase and EPA Publication 1254, Noise Control Guidelines, 2011 for the construction phase

14. Electromagnetic Interference

The use and development must comply with any exposure limits set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA)

15. Asset Protection

At any time the permit holder must ensure that the operation and condition of Council assets are not damaged by the new construction works. If the Responsible Authority deems Council assets have been detrimentally affected or damaged by development construction access, then the assets will be required to be repaired and reinstated by the permit holder to the satisfaction of the Responsible Authority.

16. Sediment Control

The applicant / owner shall restrict sediment discharges from the construction site in accordance with Construction Techniques for Sediment Pollution Control (EPA1991) and Environmental Guidelines for Major Construction Sites (EPA 1995).

17. Civil Construction Requirements

Before the development starts, detailed plans to the satisfaction of the responsible authority must be submitted to and approved by the responsible authority. When approved, the plans will be endorsed and will then form part of the permit. The information submitted must show any relevant details listed in the Council's Infrastructure Design Manual (IDM) and be designed in accordance with the requirements of that manual, including:

- a) details (and computations) of how the works on the land are to be drained;*
- b) details of how the drainage design allows for the continuation of existing overland flow paths across the land and ensures the prevention of erosion of the land;*
- c) carparking areas, circulation lanes and access shall be designed and constructed in accordance with AustRoads Publication 'Guide to Traffic Engineering Practice: Part 11 Parking,' 'Australian Standard AS2890.1-2004 (Off Street Parking)' & 'AS2890.6 (Off Street Parking for People with Disabilities);'*
- d) details of how lighting within the site is designed, baffled and located to effectively illuminate all pertinent public areas without spilling onto the road reserve or adjoining land, to the satisfaction of the responsible authority*
- e) details on how noise emitted from the land during the operation of the facility will not exceed the recommended levels set out in EPA Publication 1411 Noise from Industry in Regional Victoria, 2011 as amended and replaced;.*
- f) details of the boundary fencing of the land.*

Before the operation of the solar energy facility commences all buildings and works as shown on the endorsed plans must be constructed in accordance with the endorsed plans to the satisfaction of the responsible authority unless alternative approval provided, in writing, by the Manager Infrastructure:

18. Landscape Plan

Before the development starts, three copies of a landscape plan consistent with the Landscape Plan submitted with the application must be submitted to and approved by

the responsible authority. When approved, the plan will be endorsed and will then form part of the permit. The plan must be drawn to scale with dimensions and must include:

- a) a survey of all existing vegetation and natural features showing plants (greater than 1200mm diameter) to be removed;*
- b) a schedule of the trees and shrubs proposed to be planted in association with the landscape screening buffers along the south and west boundaries of the site, including the location, number and size at maturity of all plants. The planting is to be consistent with the details described in the Landscape & Visual Assessment report (Xurban 2018).*
- c) a maintenance and monitoring program to ensure the ongoing health of the landscaping, including weed management and the replacement of dead or diseased plants.*

All species selected must be to the satisfaction of the responsible authority.

Before the commencement of the use or by such a later date as is approved by the responsible authority in writing, landscaping works shown on the endorsed plan must be carried out and completed to the satisfaction of the responsible authority.

Once the landscaping planting is carried out the landscaping must be maintained including the replacement of any dead or diseased plants to the satisfaction of the responsible authority.

19. Landscape to be planted and maintained

Before the commencement of the development, the landscaping works, comprising the landscape screening buffers as described in the Landscape & Visual Assessment report (Xurban 2018), shown on the endorsed Landscape Plans must be carried out and completed to the satisfaction of the Responsible Authority.

The landscaping shown on the endorsed plans must be maintained to the satisfaction of the Responsible Authority, including that any dead, diseased or damaged plants are to be replaced.

20. Temporary and permanent fencing

Before the development starts:

- a) the four ecologically constrained areas identified on the endorsed plans are to be enclosed by permanent fences which are to be setback a minimum of 15 metres from the edges of these areas. These habitat protection areas shall be maintained as no access areas.*
- b) temporary protection fences consisting of star pickets and flagging or similar to the satisfaction of the responsible authority must be erected at a minimum distance of 15 metres from the edges of native vegetation buffer areas proposed along the south and west boundaries of the site. Except with the written consent of the Responsible*

Authority, the following activities are prohibited within the area contained within these fenced areas:

- i. Vehicular or pedestrian access*
- ii. Trenching or soil excavation*
- iii. Storage or dumping of any soils, materials, equipment, vehicles, machinery or waste products*
- iv. Entry and exit pits for underground services*
- v. Any other actions or activities that may result in adverse impacts to retained native vegetation.*

The temporary protection fences must remain in place until all works and development are completed to the satisfaction of the Responsible Authority.

21. Construction Management

Prior to commencement of works, a Construction Management Plan to the satisfaction of the responsible authority must be prepared, submitted to and implemented to the satisfaction of the responsible authority. The plan must show:

- a) measures to control erosion and sediment and sediment laden water runoff, including the design details of structures;*
- b) measures to retain dust, silt and debris on site, both during and after the construction phase;*
- c) locations of any construction waste and the method of disposal, equipment, machinery and/or earth storage/stockpiling during construction;*
- d) existing conditions survey of public roads that may be used in connection with the construction of the facility*
- e) where access to the site for construction vehicle traffic will occur;*
- f) tree protection zones;*
- g) the location of trenching works, boring, and pits associated with the provision of services;*
- h) the location of any temporary buildings or yards;*
- i) details of any treatment required for the portion of Bald Hill Road adjacent to the subject site to minimise dust during the construction phase*
- j) heavy vehicle movements*
- k) construction times*

- l) details of a site contact/site manager*
- m) details of how the construction phase will comply with EPA Publication 1254, Noise Control Guidelines, 2011 as amended and replaced.*
- n) Details of how the construction phase will comply with the requirements of the CFA.*

During the construction phase all measures identified in the endorsed construction management plan must be implemented to the satisfaction of the responsible authority.

22. General Amenity – Environmental Management Plan

Before the use commences, an Environmental Management Plan must be prepared, approved and implemented to the satisfaction of the responsible authority. The Environmental Management Plan must include:

- a) overall environmental objectives for the operation of the solar energy facility and techniques for their achievement;*
- b) day-to-day management requirements for the use of the solar energy facility and proposed agricultural use of the land;*
- c) procedures to ensure no significant adverse environmental impacts occur as a result of the use;*
- d) identification of possible risks of operational failure and response measures to be implemented;*
- e) A pest animal and plant management plan.*
- f) a program for recording and reporting environmental incidents or non-compliances with this permit and for responding to complaints during operation of the solar energy facility.*

The use must at all times be conducted in accordance with the Environmental Management Plan to the satisfaction of the Responsible Authority.

23. Fire and Emergency Management

Before the development starts, plans must be prepared to the satisfaction of the responsible authority and the Country Fire Authority and must be submitted to and approved by the responsible authority. When approved, the plans will be endorsed and then form a part of the permit. The plans must include the following:

- a) Fire Management Plan;*
- b) Bushfire Risk Assessment, incorporating water supply requirements;*
- c) Fuel Reduction and Maintenance Plan;*
- d) Emergency Management Plan; and*

e) *Any other risk management information for the site.*

24. Goulburn-Murray Water Requirements

All construction and ongoing activities must be in accordance with sediment control principles outlined in 'Construction Techniques for Sediment Pollution Control' (EPA, 1991).

If applicable, all wastewater from the office must be treated and disposed of using an EPA approved system, installed, operated and maintained in compliance with the EPA Code of Practice – Onsite Wastewater Management, Publication 891.4, and to the satisfaction of council's Environmental Health Department.

If applicable, the wastewater disposal area must be located in accordance with Table 5 of the EPA Code of Practice – Onsite Wastewater Management, Publication 891.4, July 2016, from any waterways (including Goulburn Murray Water open channels), drainage lines, dams or bores.

25. VicRoads Requirements

The access crossover to the Pyrenees Highway shall be constructed generally in accordance with Beveridge Williams proposal: Project ref 1800070, Stage No. TR, Drawing No. 011, Rev P0.

A Construction Traffic Management Plan (CTMP) must be provided for VicRoads review and approval prior to construction commencing. The CTMP must address, in particular, heavy vehicle haulage routes, possible pavement deterioration due to construction traffic and the identification and remediation of any damage. Once approved, the CTMP will become an endorsed document within the Planning Permit.

26. Expiry of Permit

This permit will expire if one of the following circumstances applies:

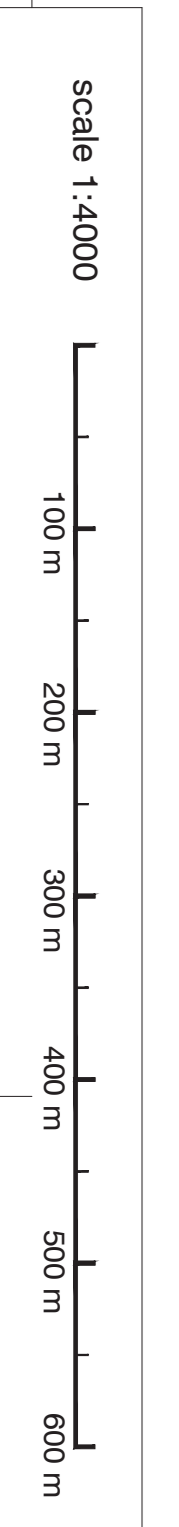
- a) *The development is not started within two years of the date of this permit*
- b) *The development is not completed within four years of the date of this permit*
- c) *The use does not start within two years after completion of the development; or*
- d) *The use is discontinued for a period of two years.*

The Responsible Authority may extend the commencement date if a request is made in writing by the owner or the occupier of the land to which the permit applies before the permit expires or within 6 months afterwards.

The Responsible Authority may extend the time within which the development is to be completed if the development has commenced and a request in writing is made by the owner or the occupier of the land to which it applies within 12 months after the permit expires.

General Notes

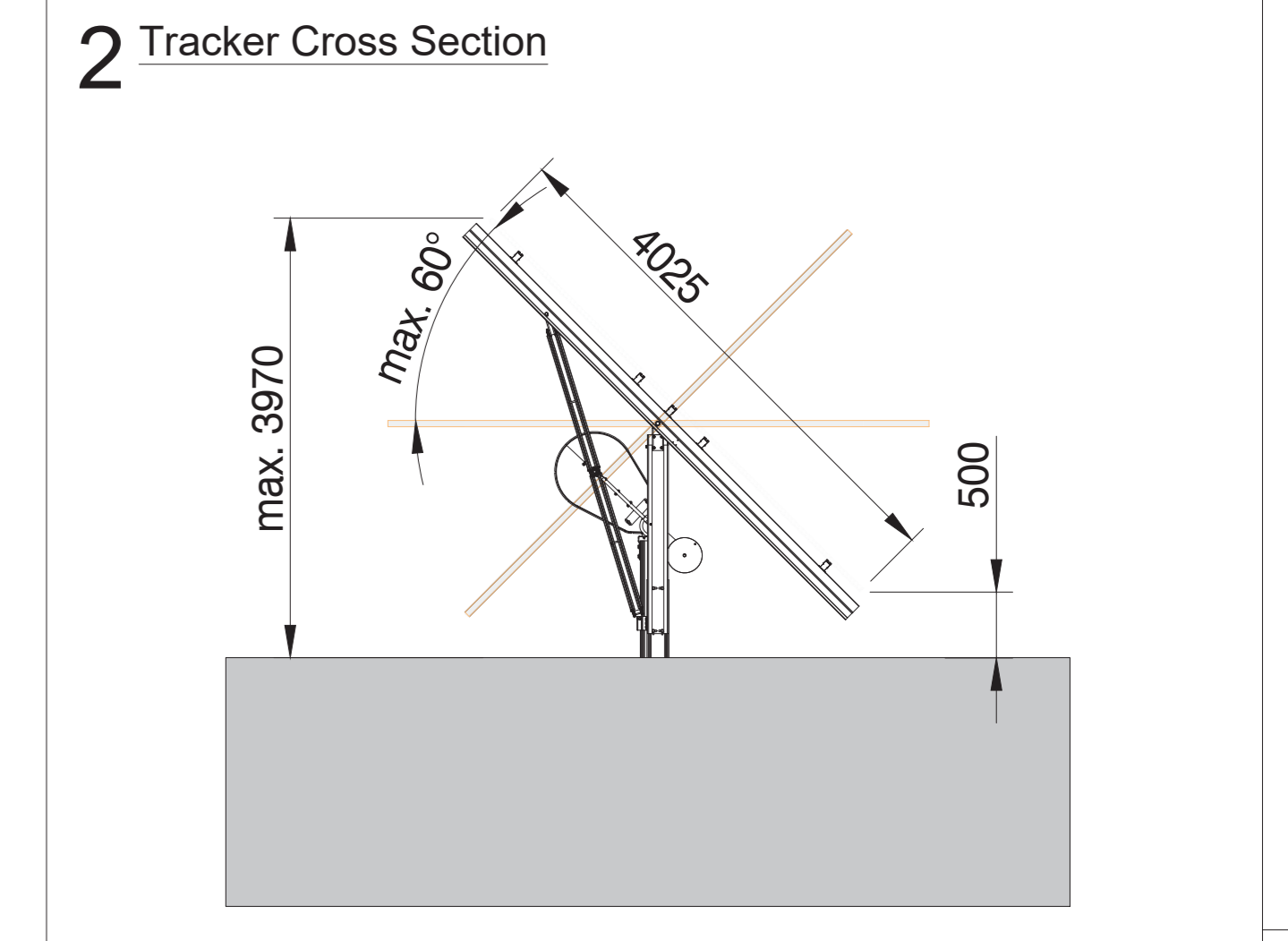
- (a) **VicRoads Note:** *Prior to any works commencing within the Pyrenees Highway road reserve, the applicant must enter into a works agreement with VicRoads, confirming design plans and works approvals processes, including the determination of fees and the level of VicRoads' service obligations – contact western.mail@roads.vic.gov.au*
- (b) **Need to transfer licences for unmade Government roads:** *The licence for the two unmade government roads (Crown Land) within the subject land will need to be transferred to the applicant. Please note that further consents may be required in respect of any proposal to build infrastructure on the land comprised within these roads.*



| Location | | Coordinates | |
|----------|------------------------|--|-------------------------|
| Country: | Australia | WGS 84 | Projected |
| Address: | Victoria Carisbrook | Latitude: 37.03° S Longitude: 143.90° E | Eastings: Northings: |

| Areas | | | |
|-------------------|-------------|-------|--------|
| Fenced Area | Length | Area | Length |
| [m ²] | [ha] | [m] | [m] |
| Total | 2,987,911.4 | 298.8 | 7,853 |

| System Configuration System Voltage @1500V | | | | | |
|--|-------------|----------------|--------------|-------------|---------|
| Modules | Strings | Inverter | Substructure | | |
| Allocation | Mdls/String | Type | Central | Type | Tracker |
| [Wp] | 350 | 28 | 3600 | 29 | |
| No. | 8,180 | Model AC (kVA) | 3600 | Config | 29 |
| Total No. | 257,040 | No. | 27 | Azimuth [°] | E' East |
| DC (kWp) | 89,964 MWp | Total AC (kVA) | 75000 kVA | Pitch [m] | 17.00 |



Legend

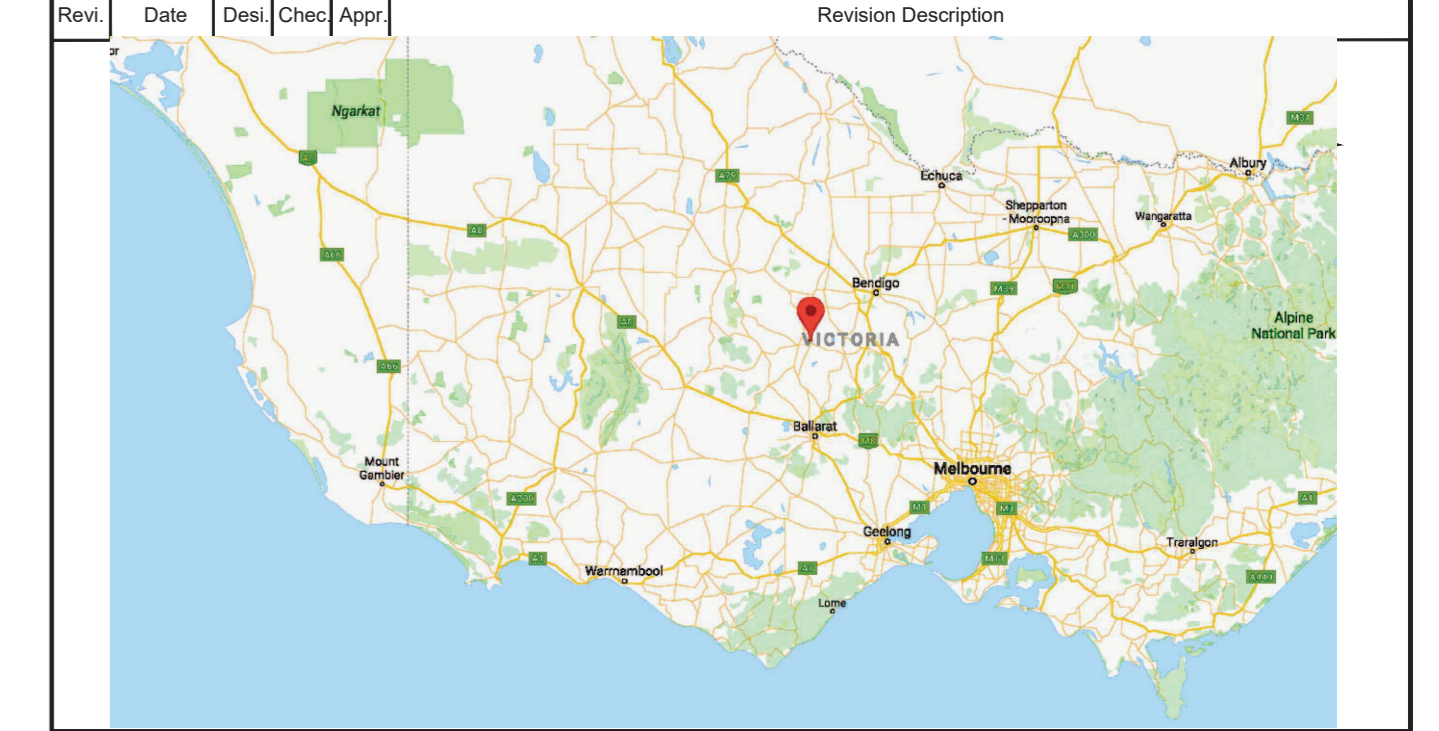
| | | | |
|--|---------------------------------|--|--|
| | Planning Boundary | | Single Axis Tracker for Panels |
| | Fence | | Solar Farm Switching Station |
| | Access Gate | | Point of Connection |
| | Access Roads [Width of 4m / 6m] | | Construction Compound = 30,000m ² |
| | PV Panel Area | | 40ft Battery Container plus spacing for DC/DC converters |
| | Bushfire Buffer [3m / 10m] | | Inverter Transformer Station |
| | Ecological Constraints | | Drainage System |
| | Landscaping Buffer [20m] | | Water Storage Tank [2 x 45,000 l] |

Used Xrefs of external planners in the current drawing

| Rev. | Date | Xref(DWG) - File name / Planning expert |
|------|------|---|
| | | |

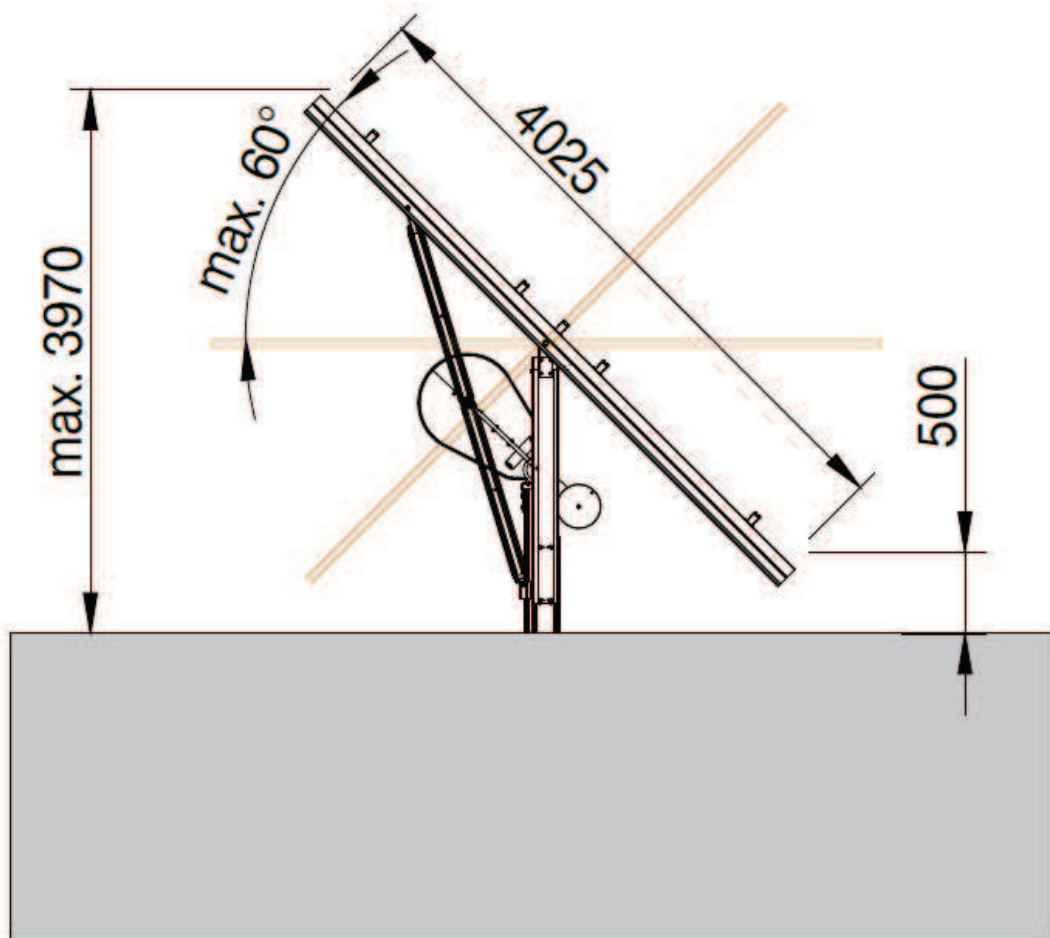
Please note that all drawing contents have to be checked on the contractor's own responsibility prior to construction start. Discrepancies have to be communicated to the contractual partner or to the responsible technical planners. Drawing numbers and notes have to be observed. With release of new drawing, previous drawings lose their validity and will not be withdrawn.

| Rev. | Date | Des. | Appr. | Revision Description |
|------|-----------|------|-------|--|
| | | | | |
| F | 02 Jul 18 | MAB | | Number of inverter station increased (27 stations instead of 22) |
| E | 06 Jun 18 | MAB | | Approval Drawing: EW-pitch changed to 17.00m |
| D | 06 Jun 18 | MAB | | Drawing updated |
| C | 24 May 18 | MAB | | Drawing updated |
| B | 24 May 18 | MAB | | Drawing updated |
| A | 19 May 18 | MAB | | Drawing updated |
| 0 | 25 Jan 18 | PLD | | Original drawing |



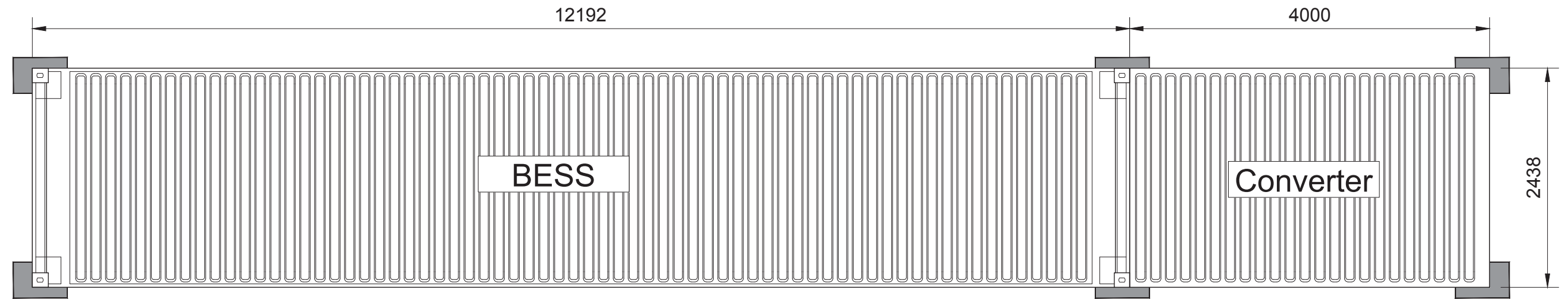
| | |
|---|--|
| <p>Project Management / Engineering Design:</p> <p>ib vogt GmbH Heinrichstr. 2-9 10587 Berlin Tel. +49 30 397440-0 www.ibvogt.com</p> | <p>Client:</p> <p>Carisbrook Solar Farm Module Array Layout</p> |
| <p>Version:</p> <p>Designed by: 25 Jan 2018 Checked by: Approved by:</p> | <p>Metric European Proj</p> <p>Page: 1 of 1 Drawing Scale: 1:4000 Date: 02 Jul 18 Status: Approval</p> |
| <p>Engineering Design:</p> <p>ib vogt GmbH Heinrichstr. 2-9 10587 Berlin Tel. +49 30 397440-0 www.ibvogt.com</p> | <p>Project No.: 2512.M4.001.0.F Project No.: [] Des.: [] Serial No.: [] Size: []</p> |

Tracker Cross Section



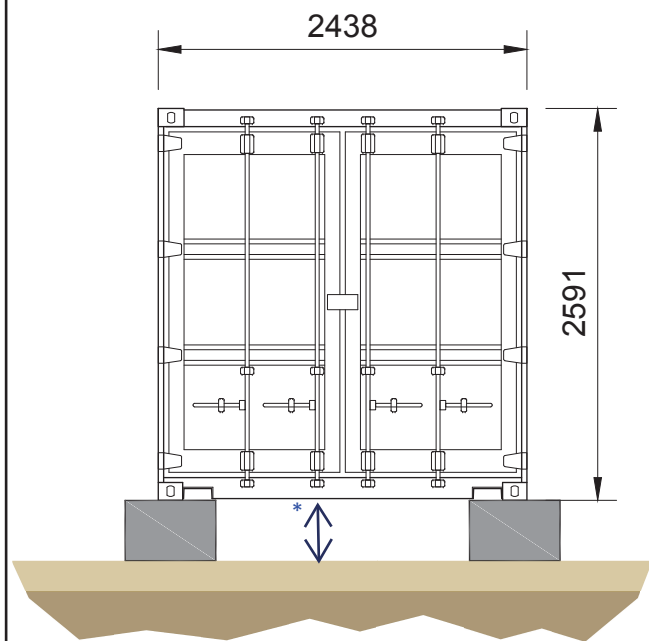
1 Top view of Battery container plus spacing for DC/DC Converter

M 1:50



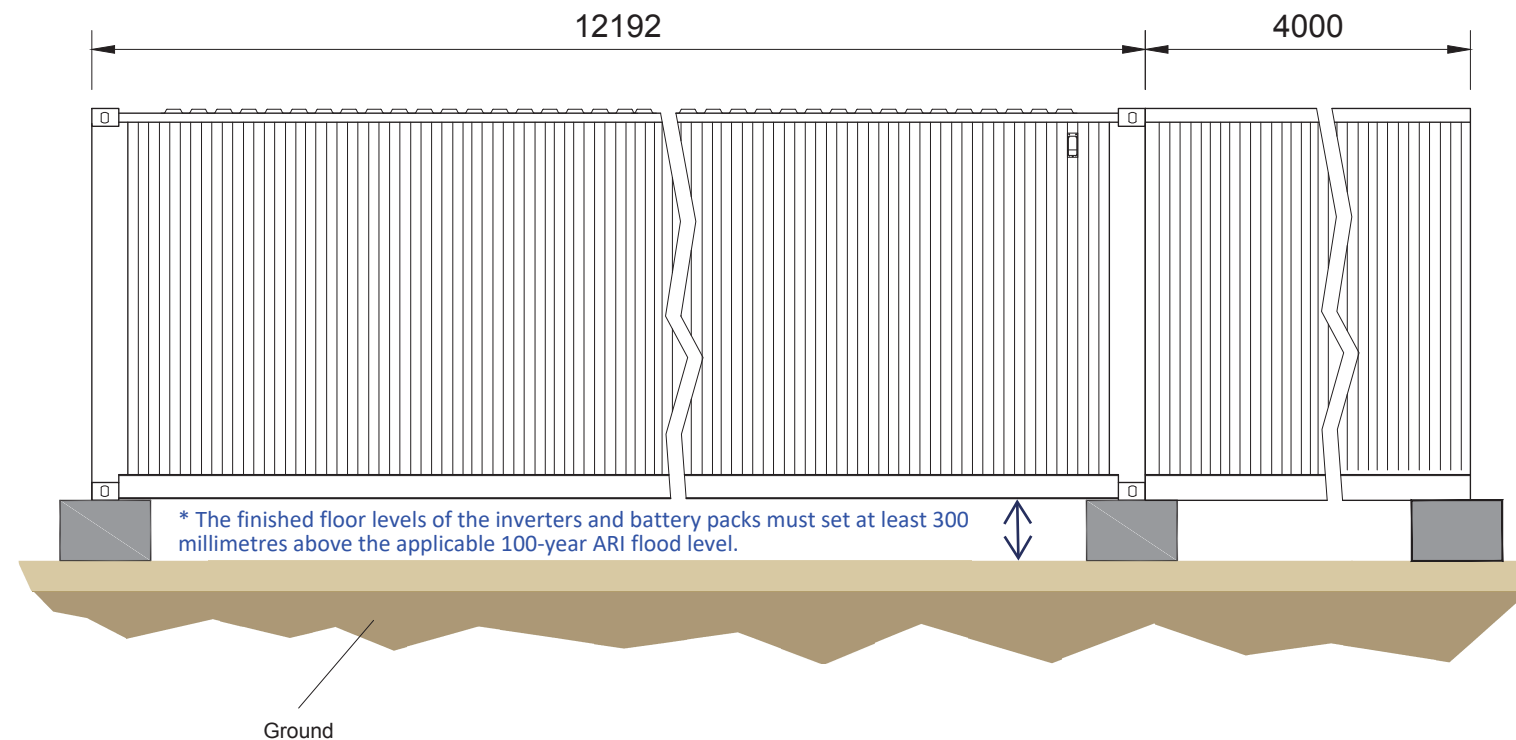
2 Elevation - front view

M 1:50



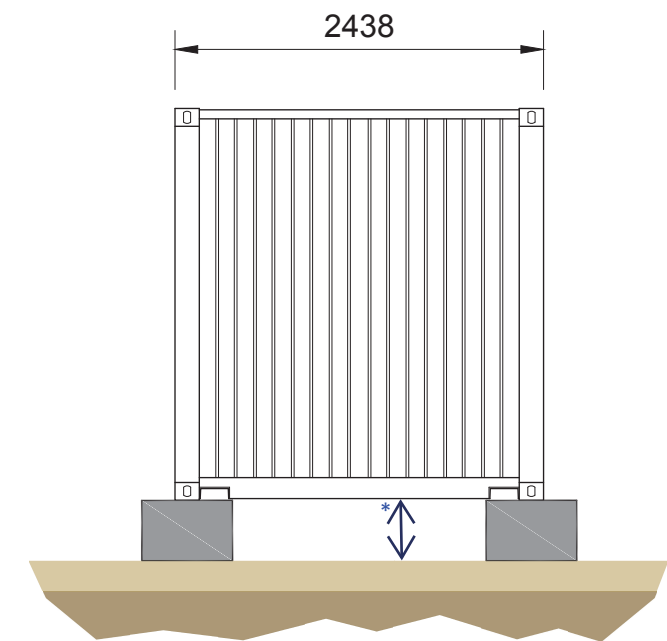
3 Elevation - side view

M 1:50



4 Elevation - back view

M 1:50



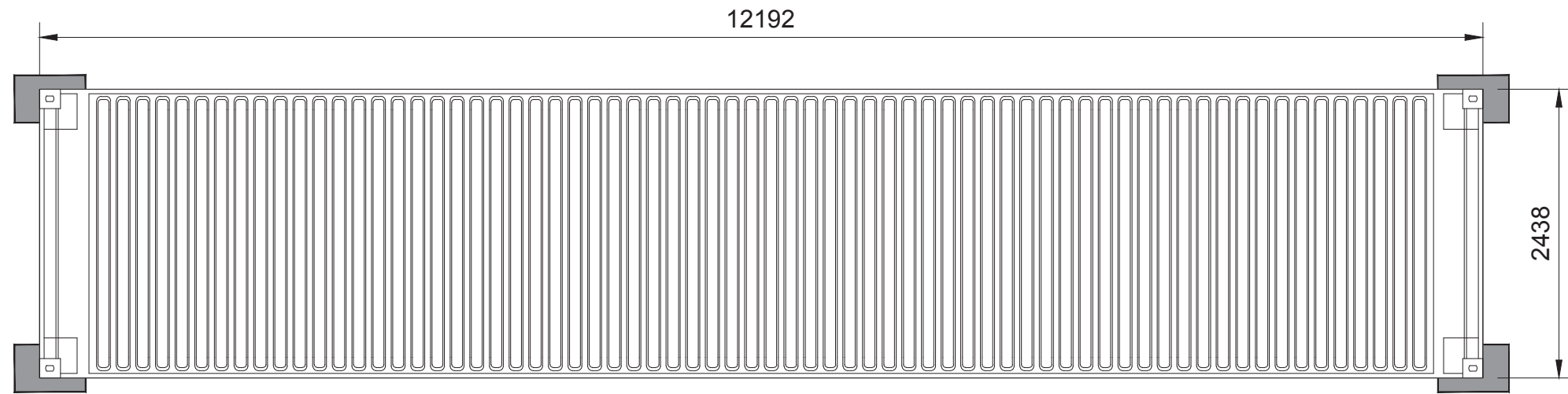
all measurements in mm

| Revi. | Date | Desi. | Chec. | Appr. | Revision Description |
|-------|-----------|-------|-------|-------|----------------------|
| 0 | 01 Mar 18 | RSU | | OSA | Original drawing |

| | | | | |
|---|--|--|--|--|
| ib vogt GmbH Helmholtzstr. 2-9 10587 Berlin Tel. +49 30 397440-0 www.ibvogt.com | | Page: 1 Size: A3_420x297 | | Copying of this document and distribution to others and the use or communication of the contents thereof are forbidden without expressed authority. Offenders are liable to the payment of damages © by ib vogt GmbH |
| | | Title: Planning Battery container plus spacing for DC/DC Converter | | |
| | | Status: 01 Mar 2018 Revision: 0 | | Document-No.: 2510.M4.015.3.0 Project-No. Descr. Serial-No. Size Rev. |

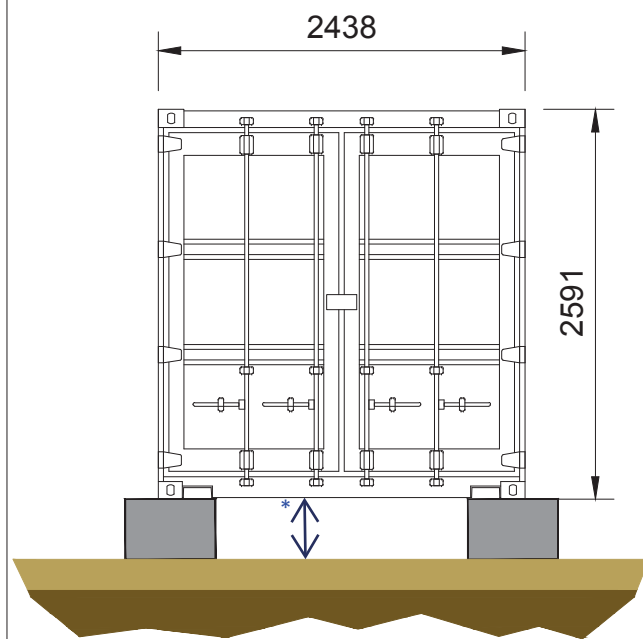
1 Top view of Inverter Transformer Station

M 1:50



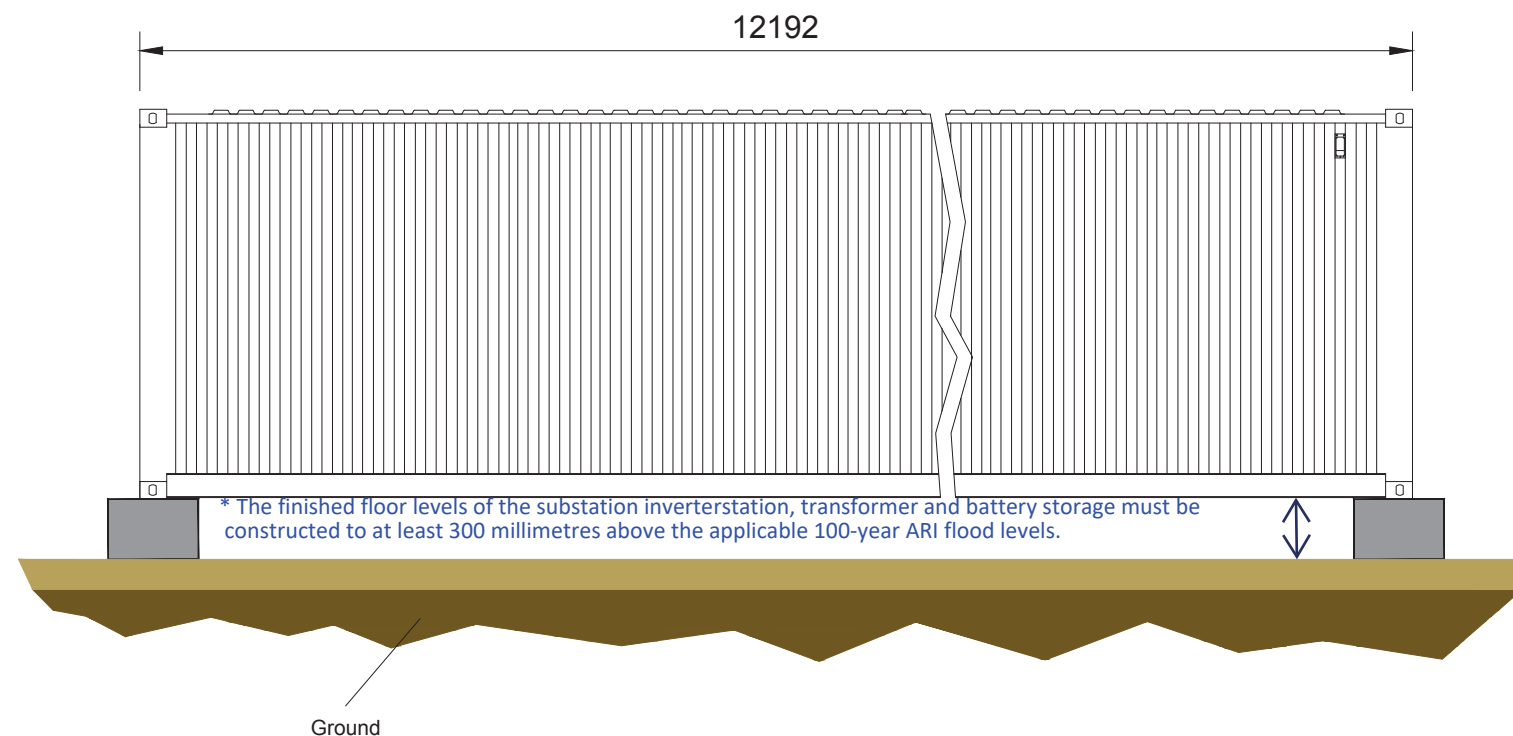
2 Elevation - front view

M 1:50



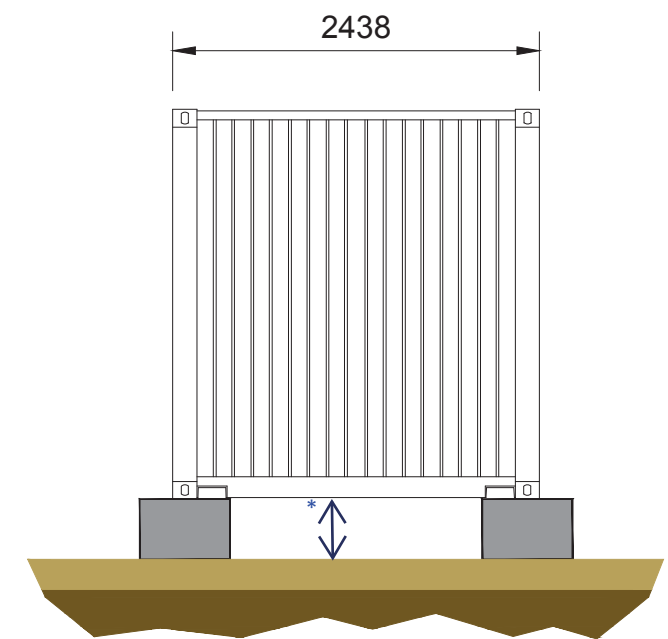
3 Elevation - side view

M 1:50




4 Elevation - back view

M 1:50



all measurements in mm

| Revi. | Date | Desi. | Chec. | Appr. | Revision Description |
|-------|-------------|-------|-------|-------|----------------------|
| 0 | 19 Oct 2017 | JED | MAB | OSA | Original drawing |

| | | | |
|--|--|---|---|
|  ib vogt GmbH Helmholtzstr. 2-9 10587 Berlin Tel. +49 30 397440-0 www.ibvogt.com | | Carisbrook Solar Farm | |
| | | Page: 1 Of: 1 | Size: A3_420x297 Drawing Scale: 1:50 |
| Title: Planning Inverter Transformer Station | | Status: 19 Oct 2017 Revision: 0 | Document-No.: 2510.M4.014.3.0 |
| | | Project-No. Descr. Serial-No. Size Rev. | |

ATTACHMENT 2 – PLANTING BUFFER PLAN

Proposed planting



The landscape buffer planting is shown on the western and southern side of the solar farm.

5.2 PLANNING PERMIT APPLICATION 131/18 FOR THE USE AND DEVELOPMENT OF A TELECOMMUNICATIONS TOWER AT 160 BALD HILL ROAD, CARISBROOK

Author: Planning Officer

Responsible General Manager: General Manager Infrastructure Assets and Planning

The Officer Presenting this report, having made enquiries with relevant members of staff reports that there are disclosable interests that need to be raised in relation to this report.

The Officer Presenting this report, having made enquiries with relevant members of staff reports that there are disclosable interests that need to be raised in relation to this report.

The Acting General Manager Infrastructure, Assets and Planning declared an indirect interest by close association in relation to this matter. Following this declaration the Acting General Manager Infrastructure, Assets and Planning was no longer involved in any discussions, meetings or decision making in relation to this matter.

SUMMARY/PURPOSE:

This application seeks planning consent to use and develop the land at 160 Bald Hill Road, Carisbrook through building and works for a Telecommunications Facility in conjunction with the proposed use of the land for a Renewable Energy Facility.

Permit trigger:

At Clause 35.07 (Farming Zone), the use of the land as a Telecommunications Facility is not a listed use and therefore is categorised as a Section 2 use.

At Clause 52.19 (Telecommunications Facility), a permit is required to construct a building or construct or carry out works for a Telecommunications facility.

Public notice of the application has resulted in two written objections, one signed by 11 people.

The application has been assessed against the policy and specific controls of the planning scheme and it is considered that the proposal meets relevant policy in the planning scheme.

POLICY CONTEXT:

Council Plan 2017-2021 – Council decisions will reflect the Council vision to be a vibrant, thriving, inclusive community by considering relevant strategic areas and/or actions when determining planning permit applications.

Central Goldfields Shire Council's Council Plan 2017-2021 (2018 Refresh) – Our Built and Natural Environment:

Outcome: Central Goldfields Shire celebrates the rich built and natural heritage and a sustainable environment.

3.3 Objective: Protect and enhance the environment while planning for growth

BACKGROUND INFORMATION:

This proposal relates to, and supports planning permit application No. 094/18, being the use and development of a Renewable Energy Facility, creation of an access to a road in a Road Zone Category 1, and associated works. The applicant in both cases is IB Vogt GmbH (IBV). While the site for the Renewable Energy Facility extends over eight parcels (300 Ha) the proposed Telecommunications Facility is proposed to be located on one of those, being Lot 7, TP98420N, (34.5Ha).

The applicant has advised that Powercor requested that the proponents of the solar farm establish a Telecommunications Facility at the site to enable a radio link so that they can have live data coming from the solar farm to help Powercor manage the electrical network.

REPORT:

Proposal

The application is to develop a 35 metre high telecommunications tower in conjunction with the proposed use of the land and adjacent parcels for a Renewable Energy Facility. The site of that proposed facility is located on farmland approximately 3.5 kilometres east of Carisbrook. The site is located on the north side of the Pyrenees Highway and is bounded on its north side by the railway line.

The site for the proposed tower is in the north-west part of the solar farm site, near the intersection of Bald Hill Road and the Moolort railway line. The proposed location of the tower is to the northernmost part of the subject lot, immediately adjacent to the solar farm switching station in the general vicinity of the access point to the solar farm and the point of connection to Powercor's distribution network. A site context map submitted with the application is attached to this report and shows the location of the tower in relation to those other elements (Attachment 1).

The tower will be freestanding and have a height of 35 metres above natural ground level and a depth of three metres below the ground's surface. The mast will have a maximum diameter of 610 mm at the base, and a minimum diameter of 270 mm at the top of the structure. An antenna will be attached at the top of the mast, which will have a diameter of 3 m. The monopole telecommunications tower will be constructed out of concrete. The concrete is non-reflective and there is no lighting proposed.

Site and surrounds

The site is located approximately 3.5 km east of Carisbrook; the northern boundary abuts the Moolort railway line (which is included in the PUZ4 – Transport), while the north-west extant of the site has an abuttal to Bald Hill Road.

The area of the lot is 34.5 Ha formed in an irregular shape. The land is flat with very minor changes in topography. A water supply easement runs through the western part of the site. The land is zoned Farming Zone – Schedule 1 (FZ1); no overlays affect the land immediately associated with this application.

The land in the surrounding area is all zoned farming zone apart from the land which is zoned Public Use Zone 4 (Transport) which follows the Moolort railway line, on the northern boundary of the site. The land in the surrounding area is predominantly very flat with only minor variations in elevations. Land in the area is generally either used for grazing or cropping.

There is a cluster of rural dwellings near the intersection of Bald Hill Road and Donovans Road, which is approximately 800m to the west of the site. Other dwellings to the north east of the site are located approximately 1.1 km away from the proposed monopole.

Referrals

As the site is located within a special water catchment the proposed development was required to be referred to Goulburn Murray Water, who responded with consent subject to a single standard condition around sediment pollution control during construction works.

Given the very contained site and limited construction impacts of this specific proposal as well as the comprehensive referral responses received from relevant referral agencies in relation to the associated proposal for the Renewable Energy Facility, no other external referrals were made.

However, notice was given to adjacent and nearby residents and landowners that may be affected by the proposal and the proposal was advertised by sending letters to adjoining landowners and placing a notice in a local newspaper. As a result, one objection was received from an adjoining property owner to the north of the railway line.

Planning Scheme Provisions

To the extent that this proposal is an ancillary use to the related proposal for use and development of a Renewable Energy Facility, the planning policies relevant to this application include:

State Policy

Clause 11.01-1S - Settlement

This clause references the Loddon Mallee South Regional Growth Plan (Victorian Government, 2014) which is listed as a background document at clause 72.08 of the planning scheme. Among other things, the Growth Plan supports the development of emerging and potential growth sectors including renewable energy. Section 14.1 (Water, energy and utilities) of the Growth Plan notes that the traditional electricity network is capable of accommodating projected growth for the region, and that there are significant opportunities to produce energy through alternative methods, such as renewable energy. It further notes that initiatives to support energy generation in the region should be pursued.

Clause 13.02-1S - Bushfire planning

This policy must be applied to all planning and decision making under the Planning and Environment Act 1987 relating to land that is:

- Within a designated bushfire prone area;
- Subject to a Bushfire Management Overlay; or

- Proposed to be used or developed in a way that may create a bushfire hazard.

(The subject land is located within a designated bushfire prone area).

The objective is 'To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life'.

The strategies include the following related to bushfire hazard identification and assessment:

- Consulting with emergency management agencies and the relevant fire authority early in the process to receive their recommendations and implement appropriate bushfire protection measures.
- Ensuring that strategic planning documents, planning scheme amendments, planning permit applications and development plan approvals properly assess bushfire risk and include appropriate bushfire protection measures.

Clause 14.01 – Agriculture

The objective (Clause 14.01-1S) is to protect the state's agricultural base by preserving productive farmland. This is supported by a range of strategies including avoiding permanent removal of productive agricultural land, and protecting productive farmland that is of strategic significance in the local or regional context.

Clause 15.03-2S – Aboriginal cultural heritage

The Objective is 'To ensure the protection and conservation of places of Aboriginal cultural heritage significance'.

Clause 17 – Economic Development

At Clause 17.01-1R (Diversified economy - Loddon Mallee South), the strategies include support and develop emerging and potential growth sectors including renewable energy.

Clause 19 – Infrastructure

At Clause 19.01-1S (Energy Supply), the objective is 'To facilitate appropriate development of energy supply infrastructure'. The Strategies are:

- Support the development of energy facilities in appropriate locations where they take advantage of existing infrastructure and provide benefits to industry and the community.
- Support transition to a low-carbon economy with renewable energy and greenhouse emission reductions including geothermal, clean coal processing and carbon capture and storage.
- Facilitate local energy generation to help diversify the local economy and improve sustainability outcomes.

At Clause 19.01-2S (Renewable energy), the Objective is 'To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met'. The Strategies include:

- Facilitate renewable energy development in appropriate locations.
- Consider the economic and environmental benefits to the broader community of renewable energy generation while also considering the need to minimise the effects of a proposal on the local community and environment.

At Clause 19.01-2R (Renewable energy - Loddon Mallee South), the strategy is:

- Support and facilitate development in renewable energy, waste to energy, carbon sequestration and other new energy opportunities.

At Clause 19.03 – 4S (Telecommunications), the policy objective is to facilitate the orderly development, extension and maintenance of telecommunication infrastructure. The most relevant strategies include (among others):

- Ensure that modern telecommunications facilities are widely accessible to business, industry and the community.
- Ensure the communication technology needs of business, domestic, entertainment and community services are met.
- Ensure a balance between the provision of important telecommunications services and the need to protect the environment from adverse impacts arising from telecommunications infrastructure.

Local Policy

Clause 21.08 – Agricultural Productivity

The overview to this clause notes the significance of agriculture to the Shire, the wider region and Victoria, and that agricultural land in the Shire is a resource that must be maintained for productive use.

Clause 22-04 - Agriculture

This policy applies to all land in the rural zones.

Where a permit is required for use or development, it is policy to (among other things):

- Ensure that land capability is taken into account in the assessment of land use and development proposals.
- Strongly discourage non-agricultural use of rural land except in circumstances where an industry or rural dependent enterprise is linked to the agricultural use of the land.

Particular Provisions

Clause 52.19 – Telecommunications Facility

The purposes of this clause is to:

- Ensure that telecommunications infrastructure and services are provided in an efficient and cost effective manner to meet community needs.

- Facilitate an effective statewide telecommunications network in a manner consistent with orderly and proper planning.
- Encourage the provision of telecommunication facilities with minimal impact on the amenity of the area.

The decision guidelines at Clause 52.19 require that before deciding on an application, in addition to the decision guidelines of Clause 65, the responsible authority must consider (among other things), as appropriate:

- The principles for the design, siting, construction and operation of a Telecommunications facility set out in *A Code of Practice for Telecommunications Facilities in Victoria, July 2004*.
- The effect of the proposal on adjacent land.

Clause 53.13 - Renewable Energy Facility (Other than wind energy facility and geothermal energy extraction).

The purpose of this clause is to facilitate the establishment and expansion of renewable energy facilities, in appropriate locations, with minimal impact on the amenity of the area. The clause applies to land used and developed or proposed to be used and developed for a renewable energy facility.

Draft Solar Energy Facilities Design Guidelines (DELWP 2018)

DELWP has released a draft set of design and development guidelines for solar energy facilities. These outline the assessment and development process for large-scale solar energy facilities in Victoria and provide advice on how potential impacts can be avoided or effectively managed.

The first part of the draft DELWP Guidelines (in chapter 5) sets out the framework for assessing proposals for solar energy facilities. This requires Council to consider state planning policies, the applicable zone and overlays, the relevant particular provisions and local planning policies or other guidance provided within the planning scheme when assessing an application.

It is considered that to the extent that this proposal facilitates the use and development of the associated solar farm, that the provisions of 53.13 and the draft DELWP Guidelines have been adequately detailed and addressed in the relevant report to Council for the related planning application No. 094/18 (Solar Farm) which is also included in this Council Meeting Agenda.

Assessment of application

The key issues in consideration of the associated planning application for the Solar Farm (Application No. 094/18), were identified in the relevant report as:

- The need to facilitate renewable energy projects (on the one hand) against meeting other planning objectives including protecting productive agricultural land and protecting landscape values and visual amenity (on the other).
- Consistency with State Policy directions
- Loss of agricultural land

- Biodiversity and native vegetation
- Landscape values and visual amenity
- Other amenity impacts

To the extent that those same issues arise in consideration of this application for a Telecommunications Facility, it is considered that they have been adequately addressed in the relevant report relating to the solar farm, save perhaps the matter of visual amenity, since by its nature, the Telecommunications Facility is a strong vertical element in the overall development.

The proposal will satisfy the State and Local Planning Policies of the Central Goldfields Planning Scheme by:

- Facilitating the development of a renewable energy facility in an appropriate location while ensuring the design does not negatively impact on the amenity of the surrounding area, as required through the policy objectives of Clause 19.01-2S (Renewable energy).
- Ensuring that the communications technology needs of the associated solar farm is met, as required through the policy objectives of Clause 19.03-4S (Telecommunications).

The use of the land as a Telecommunications Facility is not a listed use and therefore is categorised as a Section 2 use under the Farming Zone. In accordance with the purpose of Clause 35.07 Farming Zone, the proposed use is consistent with the purpose of the zone as:

- The telecommunication tower will support the efficient use of the proposed renewable energy facility at the site and will encourage the retention of employment and population to support rural communities.
- The telecommunication tower is a suitable and sustainable utility required to assist with the operations of the solar farm.
- The proposal will have minimal visual impact on the surrounding area.

The land is subject to the Erosion Management Overlay (EMO). While the site is subject to this overlay, the proposed location of the Monopole is not affected by any overlays.

In relation to the provisions of Clause 52.19 (Telecommunications Facility), the applicant has submitted a detailed assessment of the proposed use against the Application Requirements and the Decision Guidelines of Clause 52.19 including the principles set out in A Code of Practice for Telecommunications Facilities in Victoria, July 2004. A copy of that detailed assessment has been attached to this report (Attachment 2).

The most important responses to note are:

- The proposed location of the telecommunication tower is appropriately set back from Bald Hill Road.
- The proposed location of the telecommunication tower is not in close proximity to any watercourses.

- This proposal will only go ahead if the proposed solar farm is approved on the site, the solar farm will have a requirement for rehabilitation of the land.
- There are no roads or parking areas proposed as part of this application. The access point is located close to the boundary of Bald Hill Road as per the application for the solar farm.
- The Monopole is constructed from concrete and is non-reflective.
- There is no landscaping or lighting proposed as part of this application.
- There will be minimal impact on the surrounding properties as the monopole will be seen in context amongst other vertical elements such as trees and existing powerlines.
- The telecommunication facility is set back from the road reserve and is located approximately 800 metres from the closest residence.
- Health standards for exposure to radio emissions will be met.

Objectors' Concerns

Two submissions have been received at the time of writing this Report. One submission was signed by 11 people.

The concerns raised by single submitter are that the tower will pose an unacceptable risk to agricultural aircraft that may be used to spray crops or pasture in his paddocks to the North of the proposed tower. Further he suggests that the concrete structure may be difficult to discern under some conditions.

Advice from staff at the Air Navigation, Airspace & Aerodromes Branch of the Civil Aviation Safety Authority (CASA) is as follows:

The location of the proposed tower is outside the protection areas for any certified or registered aerodromes and therefore there are no regulations or requirements that CASA has that would relate to the proposal.

At 35m high, it is not a large tower by any means and would not trigger any lighting or marking requirements even if it were close to Maryborough Airport. The trigger height for reporting tall structures to Airservices and to CASA when not near an airport is 100m and 110m respectively.

Therefore there is nothing from an aviation perspective to prevent Council from approving the DA¹ for the tower. The onus is on any crop dusting pilot to ensure that the area is surveyed for any hazards (trees, fences, powerlines, buildings, towers etc.) and that these hazards are taken into consideration before conducting any low level flights.

The concerns raised by multi-signatory objection are:

- The tower will erode amenity

¹ Development Application (NSW).

It is acknowledged that the tower will provide a new structure in the landscape. The appearance of the pole is minimised as a monopole and will not result in an unreasonable change to the outlook from surrounding properties. The pole is not unreasonably intrusive, given its location at the rear of the site, away from neighbouring residences.

- The tower will result in electromagnetic frequency disruption

This is an issue that VCAT have addressed in appeals against telecommunications towers – and have found that towers do not result in electromagnetic frequency disruption.

- Power outages and instability of power

The purpose of the tower is to primarily provide data about the electricity generated on the site so ensure stable operations through the electricity grid. It has not been demonstrated that telecommunications towers result in power outages.

- Noise

The tower will not result in noise after it has been constructed. Conditions recommended address noise during the construction period. A condition recommended also addresses on going noise as part of general amenity.

- Impact on the operations of the recording studio

The operation of a telecommunications tower will not impact on the operation of the recording studio. Telecommunication towers throughout Victoria have not been associated with impact on home electronic systems.

- The applicant is not a signatory to the Clean Energy Council approved Solar retailer list.

The applicant is not a solar retailer and is not required to be on the list for a planning permit to be issued.

CONSULTATION/COMMUNICATION:

The planning application was advertised in accordance with Section 52 of the Planning and Environment Act 1987 by way of the following:

- Sending notices to all adjoining and surrounding landowners and occupiers of the site.
- Placing a notice in the Carisbrook Mercury on 20 December 2018.

FINANCIAL & RESOURCE IMPLICATIONS:

The assessment of planning permit applications is within the normal operational budget of Council.

Should any party (applicant or objector) appeal the determination of the application (permit condition or issue of permit) additional VCAT appeal costs will be incurred.

CONCLUSION:

The subject site is currently used for farming purposes (grazing, cropping). Planning application 131/18 proposes the use and development of a Telecommunications Facility at 160 Bald Hill Road, Carisbrook, in conjunction with the proposed use of the land for a Renewable Energy Facility.

The responsible authority must determine the application for a planning permit and take one of the following options:

- III. Approve a planning permit and issue a Notice of Decision (NOD) to Grant a Planning Permit for the proposal (with or without conditions) – appeal rights apply to the objectors and applicant (regarding any conditions)
- IV. Issue a Refusal to Grant a Planning Permit for the proposal – appeal rights apply to the applicant

It is recommended that a Notice of Decision to Grant a Permit be issued including conditions to manage construction and the on-going use of the site as a Telecommunications Facility.

ATTACHMENTS:

1. Site Context Analysis.
2. Applicant's Response to the requirements of *A Code of Practice for Telecommunications Facilities in Victoria, July 2004*.

RECOMMENDATION:

That Council consider the planning permit application PA 131/18, objections received and all matters required to be considered for the Use and Development of a Telecommunications Facility at 160 Bald Hill Road, Carisbrook (Lot 7/ TP098420N) and determine to issue a Notice of Decision to Grant a Planning Permit subject to the following conditions:--

1. Amended Plans Required

Before the use or development permitted by this permit commences, amended plans must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and will then form part of the permit. The plans must be generally in accordance with the plans submitted with the application but modified to show:

- (a) *A site plan, drawn to scale and dimensioned to identify the title boundaries of the lot; existing infrastructure including surrounding roads, railway alignment, services and internal roads; respective setbacks from the northern and western title boundaries of the lot to the location of the proposed telecommunications tower only.*

2. Layout not altered

The use and development of the land for a Telecommunications Facility as shown on the endorsed plans must not be altered or modified except with the prior written consent of the Responsible Authority.

3. Deferred commencement

The use and development hereby permitted by this permit must not commence unless and until the associated planning application D094/18 for a Renewable Energy Facility (Solar Farm) is:

- (a) Approved by the Responsible Authority or VCAT; and*
- (b) A permit is issued for that use and development.*

4. Decommissioning Plan

The following requirements must be met when the Telecommunications Facility permanently ceases operation:

- (a) Within three months of the Telecommunications Facility use ending, a decommissioning management plan prepared by a suitably qualified person must be submitted to the satisfaction of the responsible authority. When approved, the plan will be endorsed and will form part of the permit. The plan must include but is not limited to:
 - (i) Identification of structures to be removed, including but not limited to The concrete tower, buildings (if they are not useful for ongoing use) and electrical infrastructure;*
 - (j) Details of how the land will be rehabilitated to allow it to be used for agricultural purposes (or proposed alternative use).**
- (b) Within 12 months of the endorsement of the decommissioning management plan, the decommissioning must be completed to satisfaction of the responsible authority*

5. Loading and Unloading

- (a) The loading and unloading of vehicles and the delivery of goods to and from the site must at all times be undertaken entirely within the boundaries of the site and be conducted so as to minimise interference with other traffic to the satisfaction of the Responsible Authority.*
- (b) The surface of loading areas and access roads must be constructed and maintained to the satisfaction of the Responsible Authority to prevent dust and drainage run-off causing a loss of amenity to the site or broader area. All such surfaces and roads to be constructed to an all-weather standard to ensure all-weather use and access.*

6. Amenity

The amenity of the area must not be detrimentally affected by the use or development through the:

- *Appearance of any buildings, works or materials*
- *Emission of noise, smell, waste water and waste products.*
- *Presence of vermin*
- *Discharge of polluted water or run off onto the site and or watercourses within or outside of the boundaries of land*

7. Site Lighting

No external floodlighting shall be installed without the permission of the Responsible Authority

Where external lighting is provided (including security lighting) it must be fitted with suitable baffles and located so as to prevent the emission of direct light onto adjoining properties or roadways to the satisfaction of the Responsible Authority.

8. Noise

The use and development must comply with relevant Environment Protection Authority noise guidelines including the EPA Publication 1411 Noise from Industry in Regional Victoria, 2011 for the operational phase and EPA Publication 1254, Noise Control Guidelines, 2011 for the construction phase.

9. Electromagnetic Interference

The use and development must comply with any exposure limits set by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

10. Radio Emissions

The use and development must be designed and installed so that the maximum human exposure levels to radio frequency emissions comply with Radiation Protection Standard – Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300GHz, ARPANSA, May 2002.

11. Asset Protection

At any time the permit holder must ensure that the operation and condition of Council assets are not damaged by the new construction works. If the Responsible Authority deems Council assets have been detrimentally affected or damaged by development construction access, then the assets will be required to be repaired and reinstated by the permit holder to the satisfaction of the Responsible Authority.

12. Sediment Control

The applicant / owner shall restrict sediment discharges from the construction site in accordance with Construction Techniques for Sediment Pollution Control (EPA1991) and Environmental Guidelines for Major Construction Sites (EPA 1995).

13. Civil Construction Requirements

Before the development starts, detailed plans to the satisfaction of the responsible authority must be submitted to and approved by the responsible authority. When approved, the plans will be endorsed and will then form part of the permit. The information submitted must show any relevant details listed in the Council's Infrastructure Design Manual (IDM) and be designed in accordance with the requirements of that manual, including:

- g) details (and computations) of how the works on the land are to be drained;*
- h) details of how the drainage design allows for the continuation of existing overland flow paths across the land and ensures the prevention of erosion of the land;*
- i) car parking areas, circulation lanes and access shall be designed and constructed in accordance with AustRoads Publication 'Guide to Traffic Engineering Practice: Part 11 Parking,' 'Australian Standard AS2890.1-2004 (Off Street Parking)' & 'AS2890.6 (Off Street Parking for People with Disabilities);'*
- j) details of how lighting within the site is designed, baffled and located to effectively illuminate all pertinent public areas without spilling onto the road reserve or adjoining land, to the satisfaction of the responsible authority*
- k) details on how noise emitted from the land during the operation of the facility will not exceed the recommended levels set out in EPA Publication 1411 Noise from Industry in Regional Victoria, 2011 as amended and replaced;*
- l) details of the boundary fencing of the land.*

Before the operation of the Telecommunications Facility commences all buildings and works as shown on the endorsed plans must be constructed in accordance with the endorsed plans to the satisfaction of the responsible authority unless alternative approval provided, in writing, by the responsible authority.

14. Construction Management

Prior to commencement of works, a Construction Management Plan to the satisfaction of the responsible authority must be prepared, submitted to and implemented to the satisfaction of the responsible authority. The plan must show:

- o) measures to control erosion and sediment and sediment laden water runoff, including the design details of structures;*
- p) measures to retain dust, silt and debris on site, both during and after the construction phase;*

- q) *locations of any construction waste and the method of disposal, equipment, machinery and/or earth storage/stockpiling during construction;*
- r) *existing conditions survey of public roads that may be used in connection with the construction of the facility*
- s) *where access to the site for construction vehicle traffic will occur;*
- t) *tree protection zones;*
- u) *the location of trenching works, boring, and pits associated with the provision of services;*
- v) *the location of any temporary buildings or yards;*
- w) *details of any treatment required for the portion of Bald Hill Road adjacent to the subject site to minimise dust during the construction phase*
- x) *heavy vehicle movements*
- y) *construction times*
- z) *details of a site contact/site manager*
- aa) *details of how the construction phase will comply with EPA Publication 1254, Noise Control Guidelines, 2011 as amended and replaced.*
- bb) *Details of how the construction phase will comply with the requirements of the CFA.*

During the construction phase all measures identified in the endorsed construction management plan must be implemented to the satisfaction of the responsible authority.

15. General Amenity – Environmental Management Plan

Before the use commences, an Environmental Management Plan must be prepared, approved and implemented to the satisfaction of the Responsible Authority. The Environmental Management Plan must include:

- g) *Overall environmental objectives for the operation of the Telecommunications Facility and techniques for their achievement;*
- h) *Day-to-day management requirements for the use of the Telecommunications Facility and proposed agricultural use of the land;*
- i) *Procedures to ensure no significant adverse environmental impacts occur as a result of the use;*
- j) *Identification of possible risks of operational failure and response measures to be implemented;*

- k) A pest animal and plant management plan.*
- l) A program for recording and reporting environmental incidents or non-compliances with this permit and for responding to complaints during operation of the Telecommunications Facility.*

The use must at all times be conducted in accordance with the Environmental Management Plan to the satisfaction of the Responsible Authority.

16. Fire and Emergency Management

Before the development starts, plans must be prepared to the satisfaction of the Responsible Authority and the Country Fire Authority and must be submitted to and approved by the Responsible Authority. When approved, the plans will be endorsed and then form a part of the permit. The plans must include the following:

- f) Fire Management Plan;*
- g) Bushfire Risk Assessment, incorporating water supply requirements;*
- h) Fuel Reduction and Maintenance Plan;*
- i) Emergency Management Plan; and*
- j) Any other risk management information for the site.*

17. Goulburn – Murray Water Requirements

All construction and ongoing activities must be in accordance with sediment control principles outlined in 'Construction Techniques for Sediment Pollution Control' (EPA, 1991).

18. VicRoads Requirements for access considered under D094/18

This development is dependent upon the access considered under permit D094/18. In accordance with the VicRoads conditions provided for that permit, a Construction Traffic Management Plan (CTMP) must be provided for VicRoads review and approval prior to construction commencing. The CTMP must address, in particular, heavy vehicle haulage routes, possible pavement deterioration due to construction traffic and the identification and remediation of any damage. Once approved, the CTMP will become an endorsed document within the Planning Permit.

19. Expiry of Permit

This permit will expire if one of the following circumstances applies:

- e) The development is not started within two years of the date of this permit*
- f) The development is not completed within four years of the date of this permit*
- g) The use does not start within two years after completion of the development; or*

h) The use is discontinued for a period of two years.

The Responsible Authority may extend the commencement date if a request is made in writing by the owner or the occupier of the land to which the permit applies before the permit expires or within 6 months afterwards.

The Responsible Authority may extend the time within which the development is to be completed if the development has commenced and a request in writing is made by the owner or the occupier of the land to which it applies within 12 months after the permit expires.

SUBJECT SITE

Address: 160 Bald Hill Road, Carisbrook
Lot Details: Lot 7 TP98420
Title Particulars: Volume: 11812, Folio 001
Shape & Area: Title Area of lot 7 - 34.5 hectares formed in an irregular shape
Title Restrictions: Water supply easement running through the western part of the site
Topography: The land is flat with very minor changes in topography
Zoning: Farming Zone – Schedule 1 (FZ1)
Overlays: None affecting the land immediately associated with this application

ADJOINING LAND

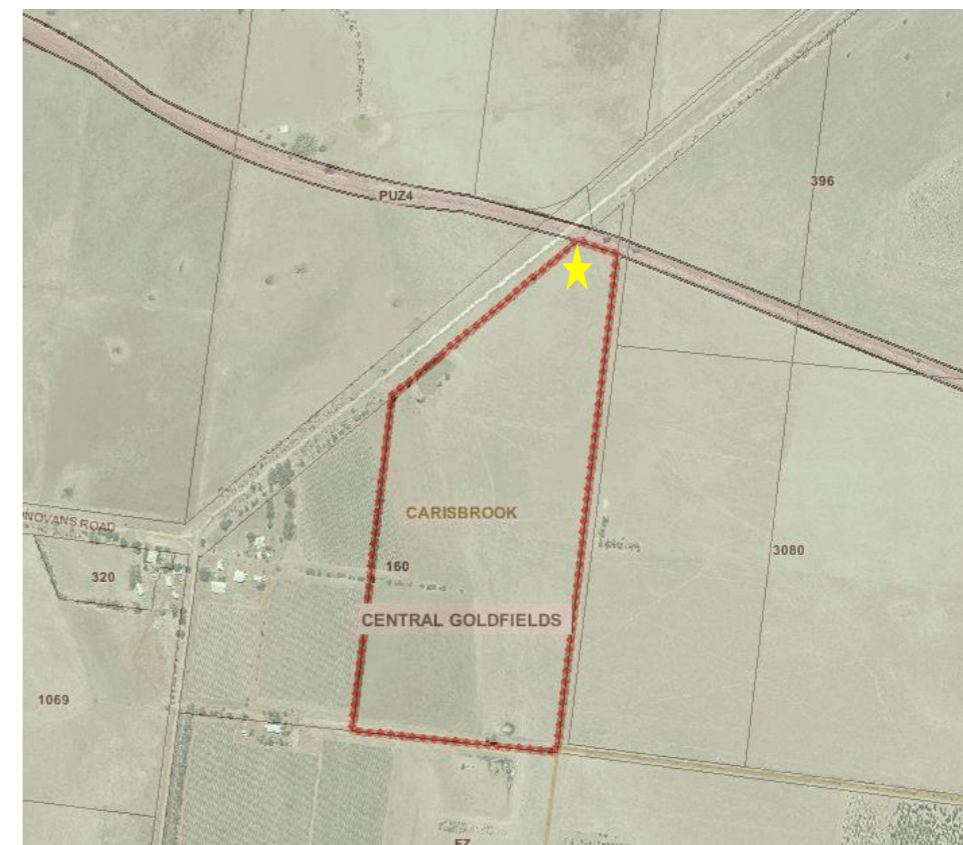
The subject site directly abuts:

- The land in the surrounding area is all zoned farming zone apart from the land which is zoned Public Use Zone 4 (Transport) which follows the Moolort railway line, on the northern boundary of the site.
- The land in the surrounding area is predominately very flat with only minor variations in elevations. Land in the area is generally either used for cattle and sheep grazing or cropping.

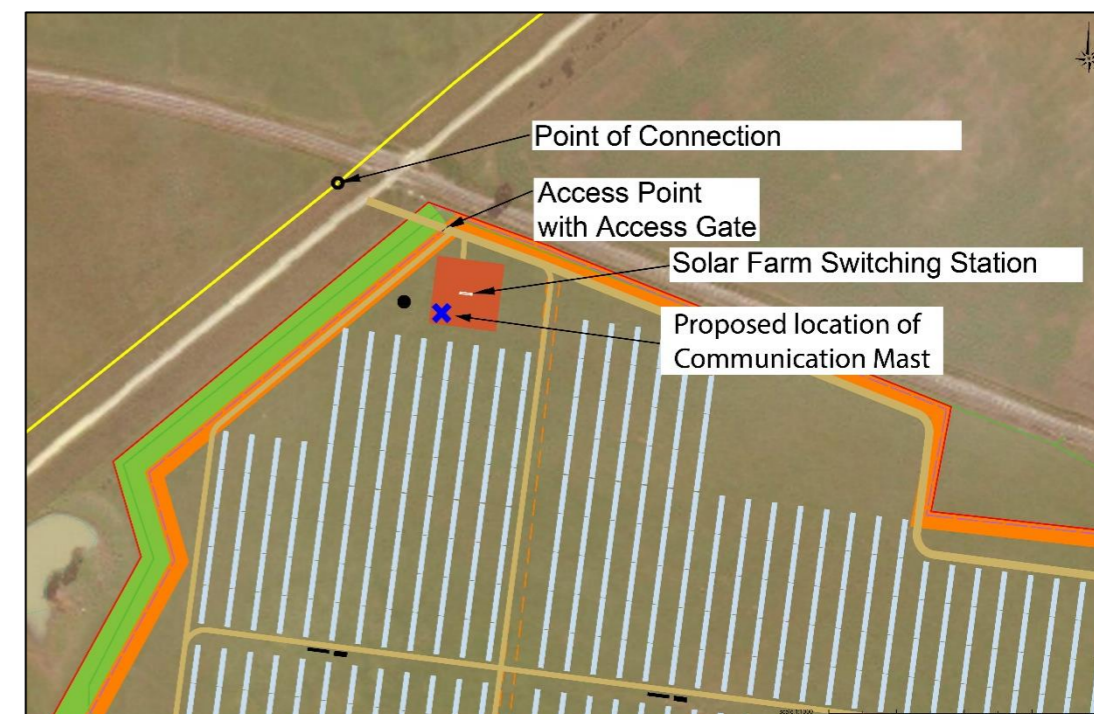
Assessment of nearby land uses:

- There is a cluster of rural dwellings near the intersection of Bald Hill Road and Donovans Road, which are approximately 800m to the west of the site.
- Other dwellings to the north east of the site are located approximately 1.1km away from the proposed monopole.

SITE CONTEXT



PROPOSED SITE LAYOUT



POLICY CONTEXT ZONING MAP



PROPOSED MAST LOCATION



PROPOSAL

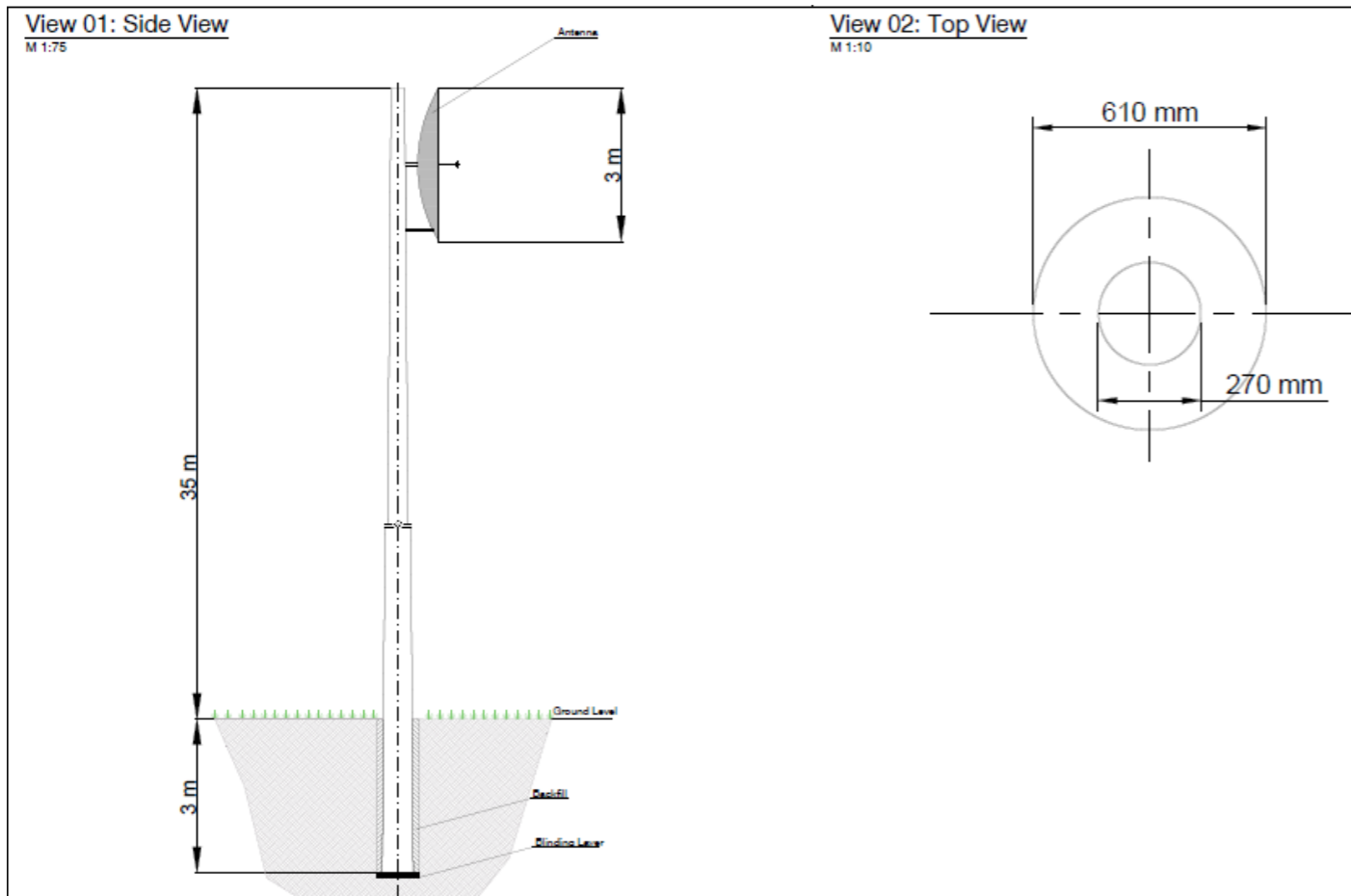
It is proposed to install a monopole telecommunications tower, which will operate in association with a solar farm that has recently been applied for on the property. The proposed facility will enable Powercor to have access to live data from the Solar Farm which will assist Powercor to manage the network. The main details are as follows:

- The tower will be located in the north-west corner of the site (as seen in the site context map).
- The tower will be sited adjacent to the solar farm switching station and within close proximity to a site access point.
- The tower will be located approximately 800 metres north east from the closest residential dwelling.
- The mast will be freestanding and will have a height of 35 metres above natural ground level and a depth of 3 metres below the ground's surface.
- The mast will have a maximum diameter of 610mm (at the base) and a minimum diameter of 270mm (at the top of the structure).
- An antenna will be located at the top of the mast, which will have a diameter of 3 metres.
- The telecommunications tower will support the operations of the solar farm.

Materials and Finishes

- The monopole telecommunications tower will be constructed out of concrete
- The concrete is non-reflective
- There is no lighting proposed

Proposed Mast Elevation



PLANNING ASSESSMENT

State & Local Planning Policies:

The proposal will satisfy the State and Local Planning Policies of the Central Goldfields Planning Scheme by:

- Facilitating the development of a renewable energy facility in an appropriate location while ensuring the design does not negatively impact on the amenity of the surrounding area, as required through the policy objectives of **Clause 19.01-2S** (Renewable energy).
- Ensuring that the communications technology needs of the associated solar farm is met, as required through the policy objectives of **Clause 19.03-4S** (Telecommunications).

The purpose of the zone:

The use of the land as a Telecommunication facility is not a listed use and therefore is categorised as a Section 2 use under the Farming Zone. In accordance with the purpose of **Clause 35.07 Farming Zone**, the proposed use is consistent with the purpose of the zone as:

- The telecommunication tower will support the efficient use of the proposed renewable energy facility at the site and will encourage the retention of employment and population to support rural communities.
- The telecommunication tower is a suitable and sustainable utility required to assist with the operations of the solar farm.
- The proposal will have minimal visual impact on the surrounding area.

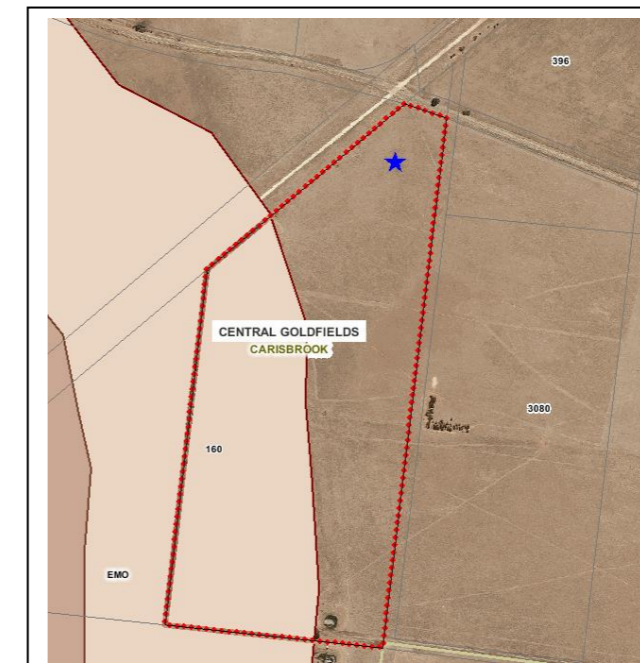
Overlay Provisions:

The land is subject to the Erosion Management Overlay (EMO). While the site is subject to this overlay, the proposed location of the Monopole is not affected by any overlays as can be seen by the image below.

Particular Provisions:

Clause 52.19 Telecommunication Facility A detailed assessment of the proposed use against the Application Requirements and the Decision Guidelines of **Clause 52.19** is provided on the following page.

Overlay Map



CLAUSE 52.19 Telecommunication Facility

| 52.19-4 Application Requirements | Response |
|--|---|
| A site analysis and design response explaining how the proposed facility addresses the principles for the design, siting, construction and operation of telecommunications facilities and the requirements in A Code of Practice for Telecommunications Facilities in Victoria, July 2004. | A detailed response with respect to in A Code of Practice for Telecommunications Facilities in Victoria, July 2004 is provided below. |
| Site boundaries and dimensions. | Site Boundaries and dimensions are provided in the site context analysis. |
| The purpose and location of all buildings and works required in the construction of the facility | The purpose of the proposed monopole structure is to provide a telecommunication link to enable Powercor to obtain live data regarding the operation of the proposed solar farm at the site. |
| The location of all existing buildings and works to be retained and demolished. | No changes to any existing structures or buildings on site. |
| The location of all proposed buildings and works including dimensions, elevations, materials, colours and finishes. | The proposed buildings and works are provided above in the proposed mast elevations. The telecommunication monopole will be constructed out of concrete. |
| The location and use of all buildings on adjoining properties. | The location and use of adjoining buildings are discussed within the Site Context Analysis Plan |
| The location of all adjoining streets and access ways | The proposed location of the telecommunication tower is appropriately set back from Bald Hill Road. |
| Australian Height Datum levels | The proposed tower is proposed to be 35 metres above natural ground level. |
| Natural drainage lines, watercourses, coastal dunes, beach systems and wetlands | There proposed location of the telecommunication tower is not in close proximity to any watercourses. |
| Proposals for the rehabilitation of the land on which development is to occur. | This proposal will only go ahead if the proposed solar farm is approved on the site, the solar farm will have a requirement for rehabilitation of the land |
| Roads and parking areas | There are no roads or parking areas proposed as part of this application. The access point is located close to the boundary of Bald Hill Road as per the application for the Solar Farm. |
| Materials, landscaping, external lighting, colour and reflectivity. | The monopole is constructed out of concrete and is non-reflective. There is no landscaping or lighting proposed as part fo this application. |
| 52.19-5 Decision Guidelines | Response |
| The principles for the design, siting, construction and operation of a Telecommunications facility set out in A Code of Practice for Telecommunications Facilities in Victoria, July 2004. | A detailed response with respect to in A Code of Practice for Telecommunications Facilities in Victoria, July 2004 is provided below in the table |
| The effect of the proposal on adjacent land. | There will be minimal impact on the surrounding properties as the monopole will be seen in context amongst other vertical elements such as trees and existing powerlines. |
| If the Telecommunications facility is located in an Environmental Significance Overlay, a Vegetation Protection Overlay, a Significant Landscape Overlay, a Heritage Overlay, a Design and Development Overlay or an Erosion Management Overlay, the decision guidelines in those overlays and the schedules to those overlays | The proposed Telecommunications Facility is not located within the area of any overlays. |
| A Code of Practice for Telecommunications Facilities in Victoria, July 2004 | |
| Section 4 of the document 'A Code of Practice for Telecommunications Facilities in Victoria, July 2004' outlines the principles for the design, siting, construction and operation of telecommunication facilities. Within this Section there are four Principles outlined. Each principle is discussed in detail below | |
| Principle 1 - A Telecommunications facility should be sited to minimise visual impact. | The telecommunication facility is set back from the road reserve and is located approximately 800 metres from the closest residence. The proposed location will not require the removal of any street trees. |
| Principle 2 - Telecommunications facilities should be co-located wherever practical. | The application seeks a permit for a monopole communication tower, there ae no opportunities to co-locate on an existing monopole for the proposed communications link. |
| Principle 3 - Health standards for exposure to radio emissions will be met. | The telecommunication facility will be designed and installed so that the maximum human exposure levels to radio frequency emissions comply with Radiation Protection Standard – Maximum Exposure Levels to Radiofrequency Fields – 3kHz to 300 GHz, Arpana, May 2002. |
| <p>Principle 4 - Disturbance and risk relating to siting and construction should be minimised.</p> <p>Construction activity and site location should comply with State environment protection policies and best practice environmental management guidelines.</p> | <p>Soil erosion during construction and soil instability during operation will be minimised in accordance with any relevant policy or guideline issued by the Environment Protection Authority and in accordance with eh CMP associated with the proposed s.</p> <p>The construction of the telecommunication facility will be carried out in a safe and effective manner in accordance with relevant requirements of the Occupational Health and Safety Act 1985.</p> <p>Minimal obstruction or danger to pedestrians or vehicles caused by the location of the facility, construction activity or materials used in construction. The location of the telecommunication facility is within the private property of the subject site at 160 Bald Hill Road.</p> <p>Where applicable, the construction will be carried out during times that cause minimum disruption to adjoining properties and public access. The closest residential dwellings are location over 800m to the south west of the site and the construction of the tower will be sited within the private property.</p> <p>As required, Traffic control measures will be taken during construction in accordance with Australian Standard AS1742.3 – 2002 Manual of uniform traffic control devices – Traffic control devices on roads.</p> <p>Open trenching will be guarded in accordance with Australian Standard Section 93.080 – Road Engineering AS 1165 – 1982 – Traffic hazard warning lamps.</p> <p>Disturbance to flora and fauna will be minimised during construction and vegetation replaced to the satisfaction of the land owner or responsible authority at the conclusion of work and in accordance with any permit which is issued for the Solar Farm.</p> |