

# LARGE-SCALE SOLAR FARMS

Townsville City Plan

We have a great opportunity to grow Townsville in a more sustainable way towards carbon-neutrality through industry partnerships which add new jobs in the renewable energy sector by harvesting the sun's energy on suitable land across our city. Townsville has become a Solar City through both people and technology, and so far over 26,000 homes and businesses are generating their own power. The Queensland Government has set a target of 50% renewable energy by 2030 and the facilitation of large-scale solar farms will assist the state in achieving this target.

This information is intended to guide applicants to identify locations which are potentially suitable for large scale solar farms in the Townsville Local Government Area. This document outlines some factors which need to be considered when selecting a site and preparing an application.

## HOW DOES A SOLAR FARM FIT INTO THE CITY PLAN?

Under the *Planning Regulation 2017*, a solar farm falls within the definition of Renewable Energy Facility, and is defined as:

“the use of premises for the generation of electricity or energy from a renewable energy source, including, for example, sources of bioenergy, geothermal energy, hydropower, ocean energy, solar energy or wind energy  
—but does NOT include the use of premises to generate electricity or energy to be used mainly on the premises.”

This information sheet is limited to ground mounted large scale solar photovoltaic (PV) farms. However, other farms may be considered. Please contact Council for more information.

## DEVELOPMENT APPROVALS

Prior to the construction of a solar farm (which is not associated with another use) a development permit and associated approvals must be obtained through Townsville City Council under the requirements of the relevant planning act. For further information regarding the development approval process please visit the Department of State Development, Infrastructure, Local Government and Planning (DSDILGP) website.

## SELECTING A SITE

Two important factors to consider first when selecting a site include the distance from the site to high voltage transmission lines and/or substations (i.e. the greater the distance, the more infrastructure will be needed to connect) and the capability of that section of the electricity network (i.e. the amount of electricity that can flow from the solar farm into the energy grid). Note: Submitting a Preliminary Network Connection Enquiry with the Network Service Provider (e.g. Powerlink or Ergon Energy) will provide you with this information.

There are also a number of areas which should be avoided to protect important aspects of the city:

- » Areas considered to contain significant environmental values. These can include but not be limited to areas identified as containing ecological significance within the Townsville City Plan;
- » Unsuitable planning areas, especially residential - zoned planning areas. Development may be supported in the Emerging community zone if it is demonstrated that it will not limit the long future development of the area;
- » Horticultural precinct in the Rural Zone, to protect areas of high-quality agricultural land;
- » Coastal protected areas, to protect the coast line and limit development in areas which may potentially be affected by the predicted effects of climate change;
- » Areas with a gradient of greater than 10%, to protect the scenic amenity of hillslopes in the region;
- » Future areas identified as containing essential Council assets, unless discussions have been held with Council;
- » Cultural heritage areas, to protect areas of cultural significance;
- » Defence land, to protect the Defence estate, unless discussions have been held with Defence;
- » Areas identified as protected estate under the strategic framework;
- » Areas within 500m of all tourist settlements, to protect scenic amenity; and
- » The water storage area for the Townsville Ross River Dam.

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## ADDITIONAL FACTORS TO CONSIDER WHEN SELECTING A SITE

As well as site location, there are other factors to consider when selecting a suitable site. These additional considerations are identified below, and should be addressed prior to the lodgement of a development application.

Separation to sensitive land uses (Residential)	Separation distances to sensitive land uses are encouraged to protect the amenity of the existing or future users of the area. Suitable distances may vary depending on topography and other natural buffers. Each application will be assessed on a merit-based approach.
High and medium environmental importance	If a site is located on high or medium environmental importance category area within the City Plan, a site-specific environmental assessment is recommended.
Aircraft safety	Consideration should be given to possible impacts of aircraft operating in the vicinity of the site (i.e. in close proximity to Townsville Airport, Defence land and flight paths).
Bushfire hazard	Should the application be located within an area of bushfire risk, a bushfire management plan is recommended.
Topography and viewshed	Areas with a gradient greater than 10% or within the line of sight from any prominent lookout of Townsville (i.e. Castle Hill lookouts) should be avoided.
Flooding	Should the application be located in an area of a defined flood event, a flood hazard assessment is recommended.
Avoid good quality agricultural land	Solar farms will be generally considered suitable on rural land. The following list of precincts has been preferentially ordered: <ul style="list-style-type: none"> <li>» Grazing land</li> <li>» Mixed farming</li> <li>» Horticulture.</li> </ul>

Townsville Dam Catchment Area	Solar farms are generally considered suitable in the dam catchment area (not including the water storage area). Should the application be located within the dam catchment area, a stormwater quality management plan is recommended.
Electrical network connection	It is the applicant/developer's responsibility to undertake discussions with the electricity provider to arrange for connection into the existing electricity network.
Land ownership	Land owner's consent will be required to construct a solar farm on any site.
Site stability	Suitable soils and land should be selected to ensure the solar panels can be erected to appropriate Australian Standards.

## ADVISE NEIGHBOURS

As part of the application, it is important to consider the impact on neighbouring residents. Council recommends that you consult your neighbour/s about the proposed development and its location in relation to their boundary. Note that formal public notification will be required as part of the development approval process under the relevant planning act.

## NORTH QUEENSLAND REGIONAL PLAN

The North Queensland Regional Plan (2020) provides mapping of Renewable Energy Investigation Areas in the region. This mapping shows areas where large-scale solar and wind developments may be suitable with consideration of solar indices, proximity to substations and high voltage transmission lines, slope, environmental and landscape constraints, and fragmentation of good quality agricultural land. To view this mapping information please visit the DSDILGP website.

## DISCLAIMER

This information sheet has been prepared by Townsville City Council. It is not intended to constitute or replace individual formal advice. Information herein includes material obtained from third parties considered to be accurate at the time of publishing this report. Whilst this information has been

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