

State code 26: Solar farm development

Purpose statement

Solar farm development has the potential for adverse impacts on individuals, communities and the natural environment. Solar farm development will be considered appropriate where unacceptable adverse impacts on individuals, communities, the environment and infrastructure and services do not arise from the solar farm development.

The purpose of this code is to ensure development for a solar farm:

1. is located, sited, designed, constructed, managed, operated, and maintained to mitigate any adverse impacts to:
 - a. individuals and communities;
 - b. the environment;
 - c. infrastructure and services;
2. ensure impacts arising from the construction, operation and decommissioning do not result in unacceptable adverse impacts on:
 - a. individuals and communities;
 - b. the environment;
 - c. infrastructure and services; and
3. is decommissioned in a timely and efficient manner that reuses, recycles and/or repurposes materials to the greatest extent possible and rehabilitates the environment.

Using this code

The assessment benchmarks for this code comprise:

- a purpose statement which identifies the overall intent of the code
- performance outcomes which set assessment benchmarks which must be complied with to achieve the purpose statement of the code.

This Code includes a Purpose Statement and Performance Outcomes. Despite any other provision of SDAP, compliance with the Code will only be achieved where both the Performance Outcomes and Purpose Statement are complied with in full. Where the Performance Outcomes are not complied with, then compliance with the Code cannot be achieved. Similarly, if the Purpose Statement is not complied with, then compliance with the Code cannot be achieved. Compliance with the Performance Outcomes alone will not achieve compliance with the Purpose Statement.

There are no acceptable outcomes for this code.

This code also includes the glossary of terms for definitions relevant to this code and reference documents; including the guideline – **Planning guideline State code 26: Solar farm development**, which provides direction on how to address this code.

Performance outcomes

Table 26.1 Material change of use

Performance outcomes
Areas of high ecological value
PO1 Development is located, designed, constructed, managed, operated and maintained outside areas of high ecological value and development that may be adjacent to a high ecological value area is to be designed, operated and managed to protect these areas and associated habitats from adverse impacts.
Agricultural land
PO2 Development is located and designed to ensure there is no significant loss of high-quality agricultural land .
PO3 Development is constructed to maintain the fertility and soil attributes of high-quality agricultural land and to enable end of operations decommissioning back to pre-construction agricultural land values.
PO4 Development does not fragment high-quality agricultural land to the extent of restricting the vital connectivity of agricultural land necessary to ensure its ongoing productivity and operation.
PO5 Development on or adjacent to the stock route network does not compromise the network's primary use for moving stock on foot.
PO6 Development on or adjacent to the stock route network does not compromise other uses and values including grazing, environmental, recreational, cultural heritage and tourism values.
Protecting water quality and stormwater management
PO7 Development is located, designed and constructed to: <ul style="list-style-type: none"> • minimise the disturbance of acid sulfate soils, and • manage the release of acid, iron and other soil base contaminants.
PO8 Development, including ancillary infrastructure, is located, designed and constructed to maintain or improve the water quality of receiving waters, waterways and wetlands by: <ul style="list-style-type: none"> • avoiding waterways and wetlands; • minimising crossings of and interference with natural drainage lines, farm drainage and irrigation infrastructure; • minimising erosion and sediment run off; • managing drainage control; • preserving the bank stability of affected waterways and drainage lines; and • avoiding non-essential hardening or unnatural modification of the waterway.
PO9 Development is located, designed and constructed to appropriately manage stormwater run off on and from the site, ensuring overland flow pathways, flow rates and quantities are maintained.
Natural hazards and extreme weather events
PO10 Development is located, designed, constructed and operated to be resilient and responsive to natural hazards and extreme weather events .
PO11 Development is located, designed, constructed and operated to protect the safety of people and animals in the event of natural hazards or extreme weather events .
Acoustic amenity
PO12 The predicted acoustic level of the development does not exceed the acoustic quality objectives for sensitive receptors in the Environmental Protection (Noise) Policy 2019.
Visual amenity, glint and glare
PO13 Development is located and designed to protect the scenic amenity and landscape values of the locality and region, in an area identified by state or local government planning instruments as having high scenic amenity.
PO14 Development retains existing mature boundary vegetation where it would act as a visual buffer to sensitive land uses on adjacent properties.
PO15 Glint and glare from the development does not create an unacceptable safety risk to drivers of vehicles on roads adjacent to the development by: <ul style="list-style-type: none"> • locating and designing components to avoid glint and glare impacts; • adjusting orientation of solar panels to avoid direct or indirect light on roads to ensure the safety of transport network users; and • utilising landscape screening to sufficiently block glint and glare impacts.
Electromagnetic interference
PO16 Development is designed, operated and maintained to protect or mitigate pre-existing television, radar and radio transmission and reception from electromagnetic interference .
Workforce accommodation impacts
PO17 On-site workforce accommodation associated with the construction of the solar farm , does not result in adverse impacts on surrounding communities and townships, such as overburdening services and community facilities.
PO18 Off-site workforce accommodation associated with the construction of the solar farm , does not result in adverse impacts on surrounding communities and townships, such as overburdening services, housing supply and community facilities.
Transport networks and access
PO19 Development construction, operation and maintenance activities associated with the development do not adversely impact the efficiency and condition of transport networks and infrastructure.

Performance outcomes
PO20 Development construction, operation and maintenance activities associated with the development do not compromise the safety of users of the transport network .
PO21 Development delivers necessary upgrades to the transport network to ensure construction activities and ongoing maintenance do not adversely impact transport networks and infrastructure.
PO22 Development demonstrates that a safe, viable and practical haulage route can be secured to accommodate the movement of oversize/overmass vehicles during construction and ongoing maintenance activities.
PO23 Development provides safe, efficient, and sustainable vehicular access to the site for all vehicle types anticipated through the construction, operation, maintenance and decommissioning of the solar farm .
Land surface and ambient temperature
PO24 Development is designed, constructed and operated to avoid adverse heat-generated impacts on land surface and ambient temperatures on adjoining land.
Decommissioning
PO25 Relevant components of development, both after completion of construction and at cessation of operations, are decommissioned in a timely and efficient manner.
PO26 Decommissioning ensures that materials removed from site destined for landfill are minimised while opportunities to reuse, recycle and /or repurpose are deployed to the greatest extent practicable.
PO27 Decommissioning at end of operations ensures disturbance footprints are rehabilitated, waterways and drainage patterns are reinstated.
PO28 Decommissioning plans are secured by bonds or financial guarantees or other mechanism/s to safeguard timely compliance.

Reference documents

Department of State Development, Infrastructure and Planning, Planning Guideline State code 26: Solar farm development.

Planning guidance to be developed and will be informed by feedback from public consultation.

Glossary of terms

Acoustic quality objective see the Environmental Protection (Noise) Policy 2019.

Decommissioning/decommissioned means the removal, rehabilitation and remediation of the solar farm in part, after finalisation of construction, then in entirety at cessation of operations. Decommissioning will be in accordance with strategies prepared by proponents and all decommissioning activities undertaken at full cost to proponents/operators.

Extreme weather events means an occurrence of a value of a weather or climate variable beyond a threshold that lies near the end of the range of observations for the variable.

Electromagnetic interference means disturbance or degradation of telecommunications signals currently in operation over the land use area. Includes signals transmitted via microwave, very high frequency and ultra-high frequency systems.

High ecological value means Matters of State Environmental Significance (MSES) as defined under Schedule 2 of the Queensland Environmental Offsets Regulation 2014. These matters can exist on publicly available resources such as Queensland Globe or be identified by a suitably qualified ecologist during a flora and/or fauna survey. Examples of MSES include, but are not limited to, threatened wildlife habitat and/or known populations under the *Nature Conservation Act 1992* (e.g. wildlife habitat for threatened or Special Least Concern (SLC) species, essential habitat, koala habitat etc.), protected areas such as National Parks and Endangered or Of Concern remnant regional ecosystems.

High erosion risk see glossary of terms in IECA Best Practice Erosion and Sediment Control

Note: A high likelihood of soil erosion resulting from rain, wind or flowing water relative to a given risk rating (such as the various erosion risk ratings presented in Section 4.4 of Chapter 4 of IECA Best Practice Erosion and Sediment Control).

High-quality agricultural land, means strategic cropping land, and priority agricultural areas, or Agricultural Land Classification (ALC) Class A and Class B land identified on the SPP interactive mapping system, Development assessment mapping system (DAMs) or local planning instruments.

Landscape values means areas protected under a regional plan and/or local government planning scheme, such as biodiversity networks, natural economic resource areas (including rural production), **scenic amenity** areas and landscape heritage areas.

Natural hazards see Part F: Glossary of the State Planning Policy 2017

Note: **Natural hazard** means a naturally occurring situation or condition, such as a flood, bushfire, landslide, coastal erosion or storm-tide inundation, with the potential for loss or harm to the community, property or environment.

Oversize/overmass vehicle means a heavy vehicle or combination which alone, or together with its load, exceeds prescribed mass or dimension requirements, and is a heavy vehicle carrying, or designed for the purpose of carrying, a large indivisible item.

Rehabilitate/Rehabilitated means restoration of areas of disturbance created for the construction of and operations of a solar farm. Rehabilitate means the act of undertaking a range of activities that collectively endeavour to return the landscape (over time) back to its condition prior to the solar farm land use. These activities aim to achieve a safe, stable, non-polluting and sustainable landform (over time) through methods including, but not limited to:

1. **decommissioning** and removal of infrastructure;
2. remodifying some areas of civil works;
3. replanting with native vegetation species;
4. installation of habitat elements (e.g. fallen woody debris);
5. watering to enhance planting survival rates;
6. weed and pest management;
7. monitoring and reporting.

Scenic amenity means a measure of the relative contribution of each place in the landscape to the collective appreciation of open space as viewed from places that are important to the public.

Sensitive land use/Sensitive land uses see schedule 24 of the Planning Regulation 2017.

Note: **Sensitive land use** means any of the following as defined in the Planning Regulation 2017:

1. caretakers accommodation
2. child care centre
3. community care centre
4. community residence
5. detention facility
6. dual occupancy
7. dwelling house
8. dwelling unit
9. educational establishment
10. health care services
11. hospital
12. hotel
13. multiple dwelling
14. non-resident workforce accommodation
15. relocatable home park
16. residential care facility
17. resort complex
18. retirement facility
19. rooming accommodation
20. rural workers' accommodation
21. short-term accommodation
22. tourist park.

Sensitive receptor see the Environmental Protection (Noise) Policy 2019.

Solar Farm – *Definition to be informed by public consultation*

Stock route network see the Stock Route management Act 2002, schedule 3.

Transport networks mean the series of connected routes, corridors and transport facilities required to move goods and passengers and includes roads, railways, public transport routes (for example, bus routes), active transport routes (for example, cycle ways), freight routes and local, state and privately owned infrastructure.

Workforce accommodation means the use of premises for accommodation of persons who perform work associated with the construction of a **solar farm**.