1 March 2019

Attention: DELWP

RE: Draft Solar Energy Facilities Design and Development Guidelines

To whom it may concern,

Please find below, feedback from the Goulburn Broken Catchment Management Authority (GB CMA) concerning the Draft Solar Energy Facilities Design and Development Guidelines, released on 8 October 2018. The responses are structured in the format as set out in the on-line feedback form provided by DELWP.

**Question 1: Do the draft Guidelines provide relevant and helpful guidance for siting, design and development of solar energy facilities, including enough best practice solar energy facility siting, design and operational matters? Are there any changes needed?**

Clarification in the guidelines on what defines ‘large-scale facilities’ as noted on page 5, is required (e.g. facility capacity, use of electricity for commercial purposes?).

There is community concern regarding fire management within solar farms and the potential risk for neighbouring properties (e.g. insurance risk). A requirement to meet CFA requirements and approvals for appropriate siting, design, development should be included in Section 5.22 ‘Design Response’ (p18). The need for a fire management plan should be included in Section 5.3.6 ‘Fire Management’ (p22). Suggest adding the importance of pre-planning re: fire management to Section 9.1 ‘Fire Risk’ (p31). There should also be some guidance on what species would meet best management practice to grow under solar panels (e.g. use of native ground covers such as *Atriplex semibaccata* (Creeping saltbush) or other similar prostrate growing ground herbs, to reduce fuel load and height).

There is very little covered in these guidelines regarding floodplain management and waterway health. The following should be included in the ‘Design Response’ (p18):

1. Information on how the preservation of flow conveyance and the temporary flood storage is to be maintained, where solar facilities are proposed to be sited on land liable to flooding. Infrastructure, including buildings, roads, security fencing and solar panels must be compatible with the nature of flooding, which may require impact (third parties) and flood risk assessment.
2. Information on how waterways and/or wetlands together with associated riparian corridors are to be protected.

Further suggestions additions to the ‘design response’ is included in Question 7 ‘off-site impact’.

Catchment Management Authority involvement should be included in Section 8.2 – flood risk (p30).

The suggestion of ‘creating elevated beds/height using retained topsoil to assist with screening’ as suggested in Section 7.1.1 (p26) would need to be considered regarding preservation of flow conveyance.
High density plantings in Land Subject to Inundation and Flood Overlays is also discouraged to ensure appropriate flow. Planting density and spacing should be designed to minimise third party impacts according to each individual site. Small shrubs are not deemed suitable.

The Guidelines address siting of facilities on non-modernised land, but do not adequately address the distance to rural residential developments or horticultural properties. Section 7.2.3 is a missed opportunity to highlight best management practice regarding potential for heat island effect on orchards. Therefore, due consideration of siting of solar farms is required (page 28) regarding horticultural industries, rural residential properties (e.g. 1-acre properties) and native vegetation/landscape values approval processes.

There is also community concern regarding the capacity of the grid to handle high amounts of electricity going in to the system, and potential for future impacts if planning does not adequately take this in to consideration.

**Question 2: Do the draft Guidelines include sufficient advice on approval requirements for solar energy facilities? Are there any changes needed?**

We strongly agree with recommendation of proponents holding pre-application discussions with relevant local authorities such as Councils, Catchment Management Authorities and GMW to better understand each referral authority’s approval requirements (as noted on p9). CMAs offer a range of services including advice, that would be valuable to proponents in determining development design and location and should be noted (page 34). This includes areas such as sustainable irrigation, landscape amenity, cultural heritage management, community networking /extension and species planting preferences for the local environment.


It is our understanding that carrying out works on land (such as a utility installation used to generate electricity), is a high impact activity (if the carrying out of the works exceeds 25 square metres), and therefore requires cultural heritage approvals under Regulation 46 (1)(b)(xxvii)(D)(xxx) of Aboriginal Heritage Regulations (2018). Such cultural heritage requirements should be noted in the Guidelines.
Question 3: Do you have any other general comments about the draft Guidelines?

Resource assistance for Councils for the updating of relevant local planning policies, will be required to implement any of these recommendations (should be noted on p16).

Clarification is required as to who the ‘local DELWP Natural Environments Program officer’ is (as listed on p21 and in the contacts list on p34).

Agree that ongoing engagement with community and local agencies regarding the development and implementation of solar energy facilities is mutually beneficial (p25), and we strongly recommend that Catchment Management Authorities are included in this ongoing engagement.

The Bannerton solar farm case study provided at the end of the Guide (p37) offers no value to the report with its current detail. A case study relevant to Northern Victoria should be included and/or an example case study of best practice and the appropriate approvals process e.g. including pre-referral meetings, working with community to determine the best location.

Question 4: Agriculture – Do the Guidelines adequately deal with agricultural land including areas serviced by modernised infrastructure when considering the location of solar energy facilities?

We strongly agree that agricultural land, particularly irrigated land, is a valuable resource, and successive governments have invested heavily in improving agricultural production, including by modernising irrigation infrastructure (p10). We therefore agree with the principle that Goulburn Murray Water (GMW) scrutiny is warranted for each proposal given the public investment in modernisation, to ensure areas of agriculture significance do not become fragmented or unworkable as a regional resource (e.g. may become abandoned through unintended consequences). Regarding GMW scrutiny of projects, we interpreted the Guidelines as being that GMW would be a referral authority requiring mandatory referrals, however this should be made clear and for what applications. This will require changes to the VPPs including an appropriate trigger, along with appropriate resourcing.

Following collaboration with GMW, we understand that the ‘Channel by Channel’ assessment project is being undertaken as part of the Transformation project, for asset management reasons. This data will help with future asset life in each of the irrigation poIs. Whilst the Channel assessment project wasn’t designed specifically for solar, it may help with decision making for siting of solar farms to reduce potential impact on areas that have been modernised.
Question 5: Landscape scale impacts – Are the Guidelines helpful in managing the potential landscape impacts of solar energy facilities?

We agree that ‘significant land use change can raise concerns across communities’ (p8), and a proposal needs to minimise any adverse effects on the local community and environment.

The State Native Vegetation Regulation principles of avoid and minimise statements should be added to Section 5.3.1 ‘Native Vegetation’, rather than the assumption that native vegetation will be removed and offset as suggested on page 19.

The planning permit application checklists (p35) could include further information such as; reference to irrigation infrastructure of existing land in the site analysis, proximity to RLUZ, and the need for an avoid and minimisation statement in the design response instead of just an assessment of extent of vegetation removal and rehabilitation plan.

Section 7.1 (p26) should include consideration of mixed heights of indigenous species for visual and barrier purposes, with a minimum width requirement of at least 20 metres. Best management practice would be for species to be indigenous. There is a guiding document called the Landscape Plan Guide (2017) for applicants in Greater Shepparton, Moira Shire and Campaspe Shire Council.

We strongly agree with the comment (page 14) that the best option to avoid or minimise impacts on native flora and fauna and regional biodiversity and landscape amenity values, is to choose a site that has previously been cleared for other land uses. Scattered trees and pockets of grasslands in the agricultural landscape are also critical and should be avoided. Aerial mapping and pre-referral advice from Council, DELWP and Catchment Management Authorities can provide this information to prospective proponents. Incremental loss of native vegetation, particularly paddock trees across our agricultural landscape is a threat to our agricultural communities and if we do not act, there will be no paddock trees left in our significant and iconic landscape.

We agree that ‘Public land managed as parks, for conservation’ should be avoided, but that the clarifying words following this statement ‘where practicable’ should be removed (p15). However, we see that there could be opportunities for solar farms to be installed on public land managed for ‘related public purposes’ such as recreational pursuits and that this should be considered ‘where practicable’ (p15).

It is noted (p32) that ‘during decommissioning stage, ultimately after working with local authorities to improve condition, the land would be returned to a significantly improved natural state than its pre-development condition’. What measures would be in place to ensure this occurs, if any, given the life of the infrastructure is approximately 25-25 years? Two approaches could be the applicant is required to enter into a Section 173 Agreement under the Planning and Environment Act 1987, or an environmental bond agreement.
Question 6: Visual amenity – Are the Guidelines helpful and clear on potential glint/glare, screening or general visual impacts of solar energy facilities?

Suggest adding visual amenity to the technical analysis on page 36. Landscape values and visual amenity (p13) should also include proximity to residential zones such as the Rural Land Use Zone. Effectively selecting properties and best management practice design, can reduce the instances of direct impact on neighbouring lifestyle-based properties. Refer to recommendations on native vegetation screening that we have included in the ‘Landscape Scale Impacts’ feedback section.

Question 7: Do the Guidelines adequately address potential off-site impacts of solar energy facilities?

As mentioned earlier, there is very little covered in these guidelines regarding floodplain management and waterway health in relation to off-site impacts. The following should be included in the ‘Design Response’ (p18):

1. Information on avoiding or managing potential adverse impacts on any receiving waterways and wetlands through any drainage plans.
2. Information on how the change of hydrologic impact will be managed to ensure no adverse impacts on third parties.
3. Information of fencing and planting to minimise adverse impacts to third parties.

Goulburn Broken Catchment Management Authority

REFERENCES:

Landscape Plan Guide 2017 for Development Proposals in City of Greater Shepparton, the Shire of Campaspe and the Shire of Moira.