

CAPITAL SOLAR FARM

Infrastructure & Commencement Date Modification

10_0121 MOD 2

1 BACKGROUND

The Capital Solar Farm Project is located on a rural property adjacent to the Capital Wind Farm near Lake George, approximately 6 kilometres north-east of Bungendore, in the Palerang Local Government Area (see Figure 1).

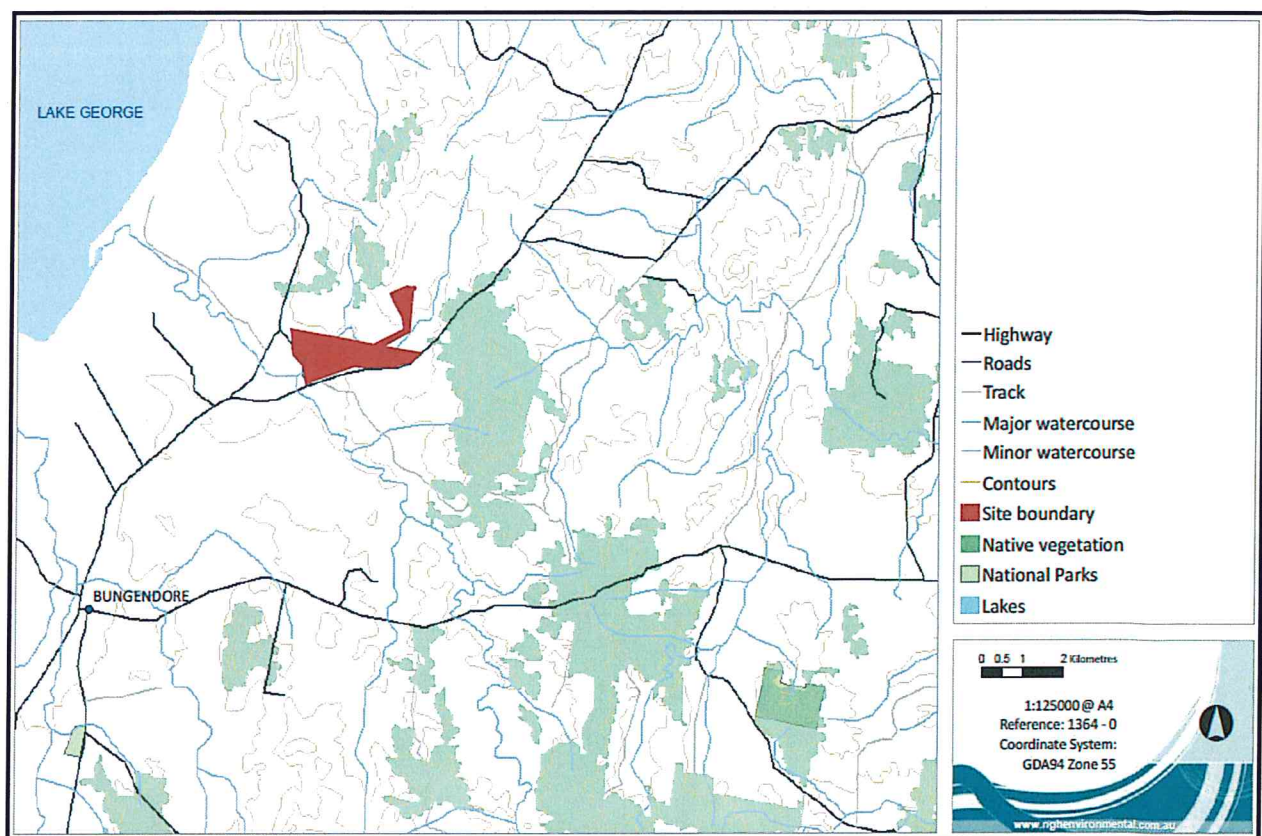


Figure 1: Location of the Capital Solar Farm Project

It was approved by the Minister for Planning in December 2010. The approval allows the development of a 50 megawatt (MW) solar farm and associated infrastructure (see Figure 2). The solar farm would be comprised of photovoltaic (PV) panels mounted on steel support frames. There would be 312 rows of steel frames of panels over the 100 hectare site. These rows would be between 2 to 5 metres apart, and have a maximum height of 3.5 metres (m)

The panels would be connected to a series of central inverters and kiosks transformers. The inverters would connect the DC power produced by the PV panels to low voltage AC power. This power would be fed to the adjacent transformer which would convert the voltage from around 350 volts to 33 kilovolts.

The power would then be conveyed by transmission lines to the nearby substation and fed into the grid.

The project has a capital investment value of \$150 million, and would employ 50 people during construction and 5 people during operations.

The approval was modified in August 2013 to revise the noise monitoring requirements.

Capital (the proponent) has not started constructing the solar farm yet.

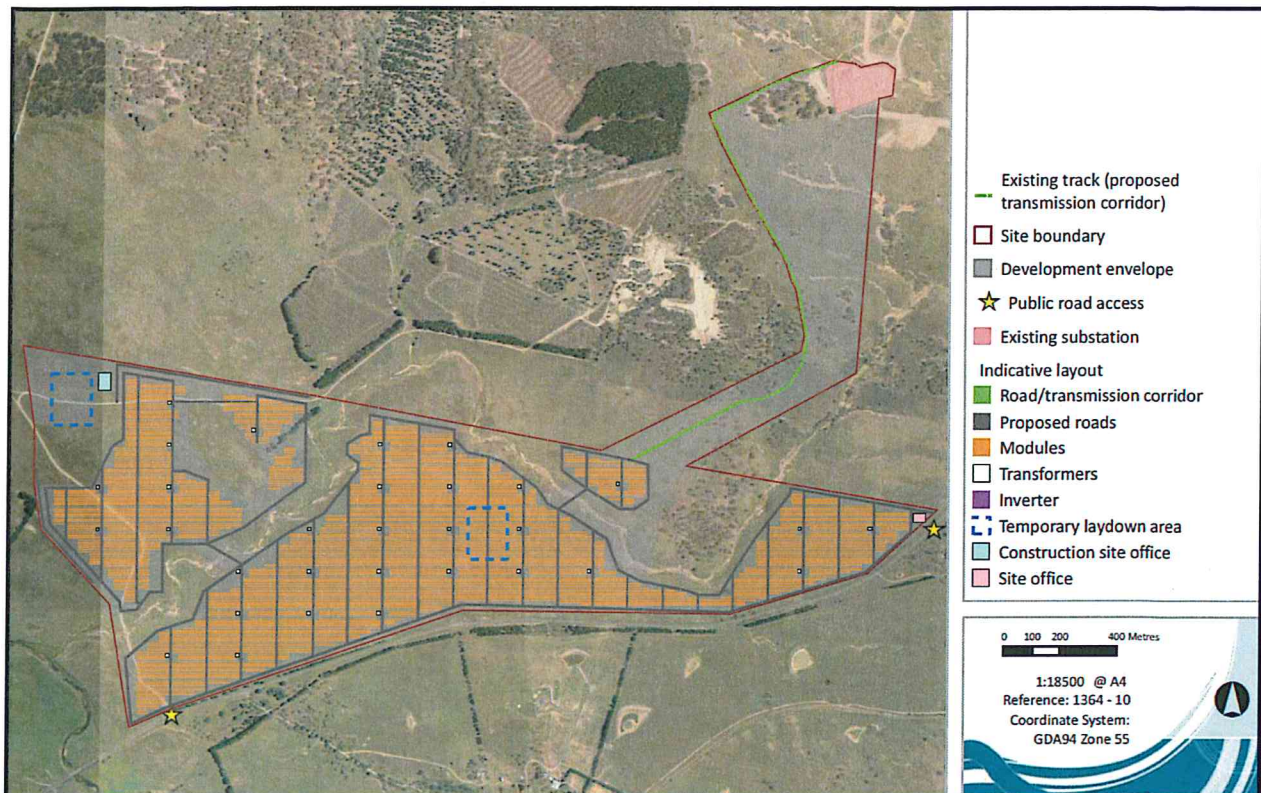


Figure 2: General Layout of the Project

2 PROPOSED MODIFICATION

Capital is seeking three changes to the project approval.

First, it wants to have the flexibility to install fixed or tracking module arrays. Improvements to solar generation technology since the approval was granted suggest tracking arrays, which track the sun's movement over the day, are more efficient than fixed arrays. There is little difference between the two systems physically, although the tracking arrays would have a maximum height of 3.8 m compared to the 3.5 m of the fixed arrays (see Figure 3).

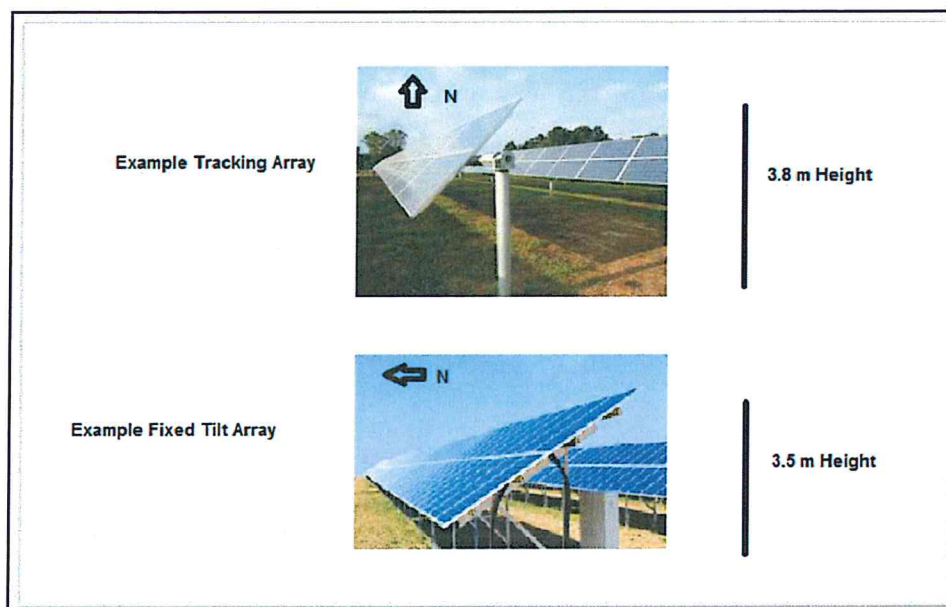


Figure 3: Indicative comparison of fixed and tracking arrays

Second, it wants to be able to install string inverters instead of central inverters, or a combination of the two. If string inverters are used, the project would need around 3,500 inverters. These inverters would be in small boxes, which would be mounted on the steel frames supporting the PV panels (see Figure 4).

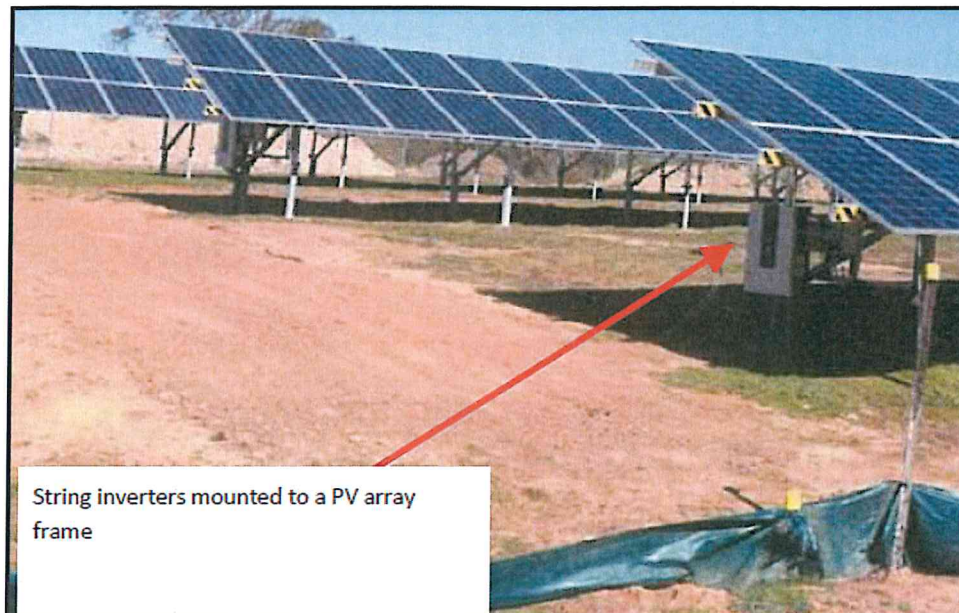


Figure 4: String inverters

Finally, Capital is seeking an additional 3 years to commence construction of the project. While the project is at an advanced stage of development, construction has been delayed due to uncertainties about the future Commonwealth Renewable Energy Target and the associated difficulties of securing investment in renewable energy.

3 STATUTORY CONTEXT

3.1 Section 75 W Modification

The Capital Solar Farm was approved under Part 3A of the *Environmental Planning and Assessment Act 1979* (EP&A Act). While Part 3A was repealed on 11 October 2011, the project remains a 'transitional Part 3A project' under Schedule 6A of the EP&A Act, and any modification to the approval must be made under Section 75W of the Act. Based on its assessment, the Department is satisfied that the application can be characterised as a modification to the existing approval (rather than a new project in its own right) as the proposal would:

- not alter the general layout of the project;
- not alter the ancillary infrastructure; and
- not materially increase the approved environmental impacts of the project.

3.2 Approval Authority

The Minister for Planning was the approval authority for the original project application, and is the approval authority for this modification application. However, under the Minister's delegation dated 16 February 2015, the Executive Director, Resource Assessments and Business Systems may determine the application as no public submissions were received on the proposal, no reportable political donations have been made, and Palerang Shire Council did not object.

4 CONSULTATION

The Department made the application publicly available on its website. Due to the minor nature of the proposal, the Department did not seek formal submissions on the application. Nevertheless it referred the application to Palerang Shire Council for comment, and Council advised it had no objection to the proposal.

5 ASSESSMENT

The Department has assessed the merits of the proposal in accordance with the requirements of the EP&A Act.

The replacement of fixed arrays with tracking arrays and central inverters with string inverters would result in little physical change to the layout of the project, and little change to the project's impacts.

The project would continue to comply with the relevant construction and operational noise criteria, and there would be no material change to the visual impacts. Despite a minor increase in the maximum height of the arrays (0.3 m), the PV panels would remain low to the ground, and would be shielded from the nearest residences by distance, intervening topography, existing vegetation, and the additional vegetation that must be installed under the current conditions of approval.

Consequently, the Department has no objection to the proposed changes, and considers any impacts associated with these changes can be suitably regulated under the current conditions.

The Department is also satisfied that the request for further time to commence the construction of the project is reasonable.

The benefits of the project remain as current as they were at the time of the original approval: Australia needs renewable energy; this project would produce 50 MW of solar power or enough power for 10,000 homes, and it would help Australia meet its renewable energy target. Further, it would attract \$150 million dollars of investment, and create employment for the region.

Second, there has been no material change on site or in the surrounding area that would render the original assessment of the merits of the project invalid, and there has been no change to the environmental standards governing the project that would warrant changes to the current conditions.

Consequently the Department supports the request.

6 RECOMMENDED CONDITIONS

The Department has drafted a Notice of Modification for the proposal (see Appendix A). The notice includes a number of changes to the current conditions and would:

- simplify the description of the project in Schedule 1, and rely on the definition of the project in the EA as modified;
- update the definitions to reflect changes to the names of agencies and incorporate the proposed modifications into the approved project;
- extend the lapsing date of the approval by 3 years, to December 2019;
- add a standard condition requiring strategies, plans and programs required under the approval to be updated within 3 months of any modifications to the approval;
- update the operational noise conditions (C5 and F1-F3) to include specific noise limits which have been derived for the project following the original approval, and are consistent with the lowest levels recommended under the NSW Industrial Noise Policy; and to require compliance monitoring to be carried out following the commissioning of the project; and
- include a new appendix showing the approved layout of the project.

Capital has no objection to the proposed changes.

7 CONCLUSION

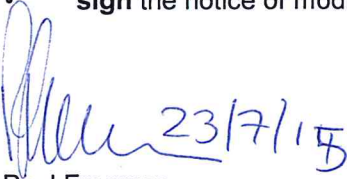
The Department supports the proposal as it would improve the efficiency of the solar farm without changing its environmental impacts.

Further, it would give Capital more time to secure investment for the solar farm without causing any adverse consequences.

8 RECOMMENDATION

It is RECOMMENDED that the Executive Director, Resource Assessments and Business Systems, as delegate of the Minister:

- **consider** the findings and recommendations of this report;
- **determine** that the modification is within the scope of section 75W of the EP&A Act;
- **approve** the application under section 75W, subject to conditions; and
- **sign** the notice of modification (Appendix A).

Handwritten signature of Paul Freeman in blue ink, dated 23/7/15.

Paul Freeman
Senior Planner
Resource Assessments

Handwritten signature of David Kitto in blue ink, dated 24/7/15.

David Kitto
Executive Director
Resource Assessments and Business Systems

APPENDIX A: NOTICE OF MODIFICATION

APPENDIX B: ENVIRONMENTAL ASSESSMENT