



VLGA DISCUSS

Solar farming for Local Councils

Article by Demian Natakhan, Director at Enhar Pty Ltd

Repurposing low-value land into solar farms is an increasingly active area where local government has a key role to play.

How can this trend be harnessed to deliver carbon reduction and energy bill savings for local councils?

Enhar is providing consulting services to a number of local councils in Victoria to answer this exact question. Establishing solar farms within their municipality from which councils can purchase power, is part of taking the next step after 'maxing out' rooftop solar on council buildings.

For councils who do not have a large land ownership to host solar farms on, coordinated initiatives are also underway establishing corporate power purchase agreements (PPAs). Under these arrangements, groups of councils will purchase generation from large-scale solar and wind farms. These generators are generally at a much larger scale and constructed outside the municipalities of the councils procuring the power, so do not necessarily lead to local renewable generation being established.

Examples such as the Sunshine Coast Council 15MW solar farm demonstrate that with sufficient internal support, councils can develop, build and own solar farms. Newcastle City Council is also underway with a 5MW solar farm project on a former tip. This approach transforms a council into a 'gensumer' – an organisation which both consumes and generates power. Other sectors are also looking in this direction; the water utility sector, for example, is exploring large 'in front of the meter' renewable generation options to achieve major emission reductions.

With significant learnings available from the Sunshine Coast and other projects, the pathway to firming up business cases is getting clearer, plus solar capital costs continue to decline as the national solar farm construction industry ramps up.

For a council or similar organisation to confirm whether establishing their own larger scale solar generation will stack up, it's essential to firm up a business model and confirm technical viability of a project site.

Business models available include a 'pool price pass through' arrangement whereby both the generation and consumption of the organisation is sold and purchased on the wholesale spot price market.

An alternative business model is to retain the energy supply contract model for the existing buildings and street lighting and set up a separate power sale arrangement for an electricity retailer to purchase the generation from the solar farm asset.

Both of these are being implemented in Australia at present, with the choice being a function of the willingness of the organisation to be exposed to spot price fluctuations.

To establish technical former landfill sites often present good options for re-purposing as solar farms and are the subject of much interest in solar development throughout Australia at present. The absence of and, economic viability of a site, councils generally shortlist available land with good proximity to available grid capacity. These can be then examined in a feasibility study which looks at grid capacity, site physical suitability, land value and alternative land use, environmental and planning issues and community support considerations.

Competing land use is a unique factor when considering a solar project on a former landfill site. There can be a win-win for councils and communities who want to see productive use of former landfill areas which are both sustainable and compatible with the long term obligation to control and manage landfill gas collection.

Regional councils generally have more land options than metro and outer metro councils. In regional Victoria, there are opportunities to lease out land to private solar developers and to potentially host larger solar farms for offtake by groups of metropolitan councils.

Enhar regularly undertakes feasibility reports, business cases for these projects. We also provide engineering and grid application services as the project progresses. With our track record of providing technical consulting services to councils for many years rolling out the rooftop solar revolution, we now also provide solar farm technical services to our clients.



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