

South Fremantle Solar Farm

Frequently Asked Questions

Why put a solar farm on the former land fill site in South Fremantle?

The City of Fremantle has been investigating environmental, land use and management options for the site since 1985. In consultation with the community, two land use plans were prepared as part of a feasibility study in 2003 – 2004 however neither plan was financially viable.

In recent years, the idea that a solar farm would be a good use for the land has gathered momentum. It's thought a solar farm would be a productive use for the site, and would cause minimum disturbance until longer-term remediation and development options can be sought.

What part of the site will it cover?

See the plan attached. The bulk of the proposed solar farm will cover Lot 1 on the southern part of the site adjacent to the Fremantle Village Chalet Park. Solar panels are also planned for lots 8, 9 and 10 in the mid part of the site.

How big will it be (capacity)?

The proposed solar farm will cover approximately 8 hectares of the 19.4 hectare landfill site. The Solar Farm will produce up to 4.9 MW of power.

What do panels look like?

A final decision on the profile of the panels is yet to be made, however the highest profile would be around 3m tall at its maximum point above the ground.

Will the panels be visible from nearby houses?

Given the setbacks, even the higher profile 3m structures would not be visible from the ground floor of neighbouring properties. The panels may be visible from upper floors just as the landfill site is visible from this viewpoint.

Can it be screened by planting trees?

Some planting for screening purposes could be considered but would need to be carefully planned. The viability of the site depends upon its electrical output and shading of the panels would reduce output. Planting and screening would need to be considered in such a way that it does not affect the output.

How will it affect the Hollis Park path?

The Hollis park path way and the landscaping in that area will remain untouched.

Does solar panel reflectivity create a problem with glare? Does this affect aircraft?

Solar photovoltaic panels are designed to absorb rather than reflect light. They typically reflect less light than many other objects (e.g. water bodies, steel structures). Nevertheless, Epuron will consider reflectivity during the site development process.

Regarding aircraft, there are numerous examples of solar projects that have been installed in close proximity to airports. A comprehensive study of aviation incidents for which glare was identified as a principal cause, concluded that most typically glare was found to come from bodies of water or the sun itself being low on the horizon. The South Fremantle Solar Farm will not be located close to an airport.

Will there be disturbance from the site?

There will be negligible noise or movement on the site once the solar farm is operational. There may be some disturbance during construction however the proponent will be required to submit a construction management plan which will contain provisions for managing and minimising dust, noise and other disturbances during construction phase.

Will the panels track and does the tracking mechanism make noise?

Epuron has not yet completed final equipment selection for the site. The solar panels are, however, more likely to be fixed in place. Use of solar tracking technologies which follow the sun's path throughout day is less likely; this technology is not noisy.

When will it be finished?

Once development approvals are in place and the City has agreed the terms of the lease, Epuron will commence construction later this year. Development would be completed and the solar farm operational by late 2018 or early 2019.

Why is this project important to the City?

The solar farm project is in line with the recommendations of the City's draft energy plan and as well as its One Planet commitment of carbon neutrality for corporate emissions to 2020 and the aim of being 100% powered by renewables by 2025. The

City of Fremantle continues to be a leader in sustainability, with the solar farm initiative recognised in the City's One Planet Action Plan and future visioning projects.

How would the Solar Farm benefit the community

Construction of a solar farm will activate a site which currently has very limited practical applications. It also has the potential to provide an alternate source of green energy for community and commercial purposes. Construction and operation of the solar farm would be fully funded by Epuron and would therefore require little (if any) direct costs to ratepayers.

How did we get to this stage?

In May 2014 the City put out an expression of interest (EOI) for a commercial operator to construct and operate a large-scale solar farm at the site. A total of ten submissions were received and assessed by a panel with First Solar nominated as the successful candidate.

Following First Solar's withdrawal from the process in August 2015, the City's second recommended proponent Epuron was invited to enter into a new Exclusive Working Agreement.

What approvals are required?

The site is designated a 'development zone' under the local town planning scheme. A structure plan would be required for permanent development however the solar farm will be considered as a 'temporary development' as it would not prejudice or prevent the long-term development of the site. Temporary development does not require a structure plan. The South Fremantle Solar Farm proposal will require planning approvals from the City of Fremantle including approval from the Department of Water and Environmental Regulation. The final lease and development approvals will be subject to separate council resolutions.

What happens next?

Epuron has now submitted an application for development approval. In parallel, the City and Epuron have been negotiating principles for a long term lease for the landfill site. The final lease and development approvals will be subject to separate council resolutions. Amongst other things the lease will set out responsibilities for site management including management requirements under the *Contaminated Sites Act 2003*.

How can the community be involved?

A project webpage, which includes FAQs, has been live on the City's website since the project commenced. In addition in May 2015 the City called for expressions of

interest from community members wishing to be part of a community reference group (CRG). A group consisting of eight people was formed. The group has met a number of times and has been provided with updates as the project has progressed. Updates of note have also been included in the local newspapers.

Will the land be transferred to Epuron?

The City will retain ownership of the land and is currently negotiating to lease the site to Epuron for the purpose of constructing and operating a solar farm over a nominated period of time, probably in the order of 20-25 years. Epuron will need to provide access for ongoing site monitoring and management to meet environmental responsibilities.

Would the City buy the power?

A large component of the City's power needs is considered to be contestable (so it has a choice of power retailer) Council has agreed the City's next tender for the supply of electricity for contestable sites should give consideration to a preference for 'locally sourced green power.' When it's up and running, the South Fremantle Solar Farm will be a local source of green power. The City could buy this indirectly through the retailer. The City's tender for contestable will be subject to the annual cost of procuring electricity being no more than 10% greater than the total expenditure by the City on electricity under its current (2017) contestable power contract including the purchase of carbon offsets.

Will I be able to buy power directly from the solar farm?

Currently, all residential (non-contestable) customers must buy electricity from Synergy. If you opt for green power through your retailer, it is possible that a portion of the power you purchase will come from the Fremantle solar farm. That is, output from the solar farm could be purchased by an electricity retailer such as Synergy under a power purchase agreement and could then form part of the green power electricity generation mix that the retailer draws on to serve its customers.

What is contestable power?

Consumers within the South West Interconnected System (SWIS) which consume more than 50 megawatt hours of electricity a year (an average of 137 units per day) have the option of choosing their electricity retailer. They are known as contestable customers. Non-contestable customers, including most residential customers, must purchase their power from Synergy.

The SWIS covers an area of 261,000 square kilometres. It covers the south west within a line that stretches roughly from Kalbarri to Southern Cross and Ravensthorpe and includes a leg reaching east to Kalgoorlie. The SWIS is a self-contained network which meets the generation and transmission needs of electricity consumers within its boundaries.

How contaminated is the site and can the site be remediated?

The site was operated by the City as landfill between the 1930s and the 1990s. During that period uncontrolled fill included domestic and industrial waste as well as fly ash being deposited on the site. The site is also thought to contain quarantine waste.

Under the *Contaminated Sites Act 2003*, the site is classified as contaminated - remediation required. The community has expressed strong concerns over potential adverse health and environmental impacts if a clean-up of the site were to occur through a 'dig out and dump' approach. Quarantine waste would require particularly stringent removal practices. In any event, studies show this approach to remediation as not being financially viable.

A management plan is currently in place which includes regular groundwater testing and monitoring of gases.

Is the site of value/interest to the Aboriginal community?

There are no registered Aboriginal heritage sites in the nominated area, however the area does have some historical significance and is close to the Robb Jetty Aboriginal stockmen's camp.

Is the site of interest from a European heritage perspective?

The site and surrounding beach areas have European heritage interest particularly with respect to the horse racing industry.

Could the rest of the landfill site be used for other purposes?

Once the solar farm is up and running the City may wish to consider suggestions for temporary uses on other parts of the land fill site. As with the solar farm, future uses would likely emerge as the result of a public expression of interest and would also need to meet the requirements of the *Contaminated Sites Act 2003*.