

SOLAR FOR APARTMENT BUILDINGS

VPF ENERGY EFFICIENCY UPGRADES: UNISON HOUSING CASE STUDY

unison 

About Unison

Unison is a not-for-profit organisation that provides a range of services to foster strong communities. It develops, owns and manages social, transitional and affordable housing and provides commercial property management, owners corporation management, and cleaning and ground services.

Rationale

Unison applied for the Victorian Property Fund's (VPF) Environmentally Sustainable Housing Funding Round with the aim of reducing energy costs for its low-income tenants, to assist them to sustain their tenancy and break the cycle of homelessness.

Project overview

It was the announcement of the VPF's funding round that prompted Unison to investigate the possibility of installing solar on some of its properties. Using the BOOM! platform, Unison created a business case for its owned properties, before selecting 17 of its multi-occupancy, multi-level apartment blocks for the project.



The apartment blocks, 16 in metropolitan Melbourne and one in Geelong, house a total of 476 households that will indirectly benefit from the solar panels' reduction of energy costs for the common light and power.

With the VPF setting a minimum size for applications, Unison also partnered up with Prahran Malvern Community Housing (PMCH) to enable the smaller organisation to qualify for funding. Unison acted as the lead agency, engaging the installer on PMCH's behalf to provide solar on four, multi-occupancy properties that PMCH manages on behalf of the Department of Health and Human Services (DHHS).

Impact



17 APARTMENT BUILDINGS



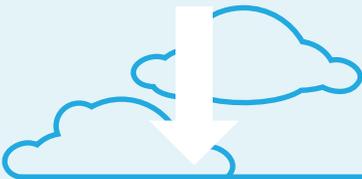
476 TENANCIES



1016 TOTAL SOLAR PANELS



391 KW INSTALLED



439 tonnes CO2 *

Reduction in greenhouse gases over 12 months



430 MW/year

Electricity produced over 12 months



Equivalent to recycling

18,679*

bags of rubbish rather than sending to landfill*

*[epa.gov/energy/greenhouse-gas-equivalencies-calculator](https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator)

Importance of the VPF grant

'The VPF project was really the catalyst for us to look at energy efficiency in our properties,' says Zoë Goslyn, Unison's Asset Manager.

With the experience and knowledge gained from the VPF funded project, Unison has successfully applied for further funding via the Victorian Government's Solar Homes program to launch a second project. This additional funding will be used to install solar on another 50 properties, this time standalone homes that will have a direct impact on tenants' bills.

Using the same contractor for the next solar project has made progressing the second project smoother and faster. (Bunjil Energy also won a secondary procurement process with Unison, via the BOOM! platform.)

As an added benefit of the VPF grant round, Unison will be able to tap into the experience of other community housing organisations that have used the VPF grant to install solar on standalone properties. This will greatly reduce Unison's learning curve, particularly in relation to the increased communication with tenants that will be required when installing solar on standalone properties rather than common areas of apartment buildings.

Tenant's involvement

Tenants were kept informed of the project's progress throughout the process from inception to installation and post installation. As Unison installed solar on multi-level apartment blocks, tenant involvement was restricted to notifications about the short power outage that was required whilst works were carried out. The impact on tenants' rental payments, which include energy costs, is still to be finalised however Unison is confident that the installation of solar panels may lead to a drop in rental charges or prevent a rise in energy costs.



Challenges

Project management

Staff considerations



'Managing a project of such magnitude across lots of different property portfolios poses a number of challenges, especially when it's the first time you do it. We learnt as we went along and this process has been very valuable for our team. We are now well placed to deliver such a project again,' says Zoë.

'When we received the funding, it was all systems go and we had to deliver this new project on top of our day-to-day work, so finding the staff resources to roll it out was probably our main challenge. With the skills and knowledge gained through this project, we now know how crucial it is to have one dedicated project owner that facilitates the roll out across the different teams.'

Grid issues

Grid capacity



There were some properties that Unison had targeted for solar but were unable to proceed with due to the grid being at capacity. Unfortunately, given the impracticability of submitting a pre-approval application to the relevant energy distributor for every project, pre-approval is often best left to the solar supplier to determine before proceeding with an application and installation. However, that does mean a level of uncertainty around network approvals remains until that point. A government-mandated and standardised process for submitting bulk pre-approval requests across all Victorian Distribution Network Supply Providers could help to minimise connection risks prior to procurement.

'There's a learning piece for other organisations here - identifying whether grid capacity is likely to be an issue can affect the business case for a project, which might in turn lead to different decisions being made,' Zoë says.

Tenant communication

During the roll out, Unison held information sessions for its Place Management teams and prepared a frequently asked questions document to arm them with information to share with tenants.

Signage was also posted in the buildings to inform tenants that contractors were working on the roof and that there would be a short period of time when the power was disconnected so that the solar could be connected.

Zoë explains, 'Communicating with tenants wasn't a challenge for our organisation, as we have a team of Place Managers dedicated to working with tenants. We made sure to plan our communications around the actual installation timeframes. The hardest part was finding the right balance about giving too much information and not enough. We kept thinking "What do they need to know? What will they want to know?"'

Timing of the funding

'When the funding became available and multiple organisations in the sector were successful in getting grants, there was a time intensive procurement exercise. At the same time, CHIA Vic and BOOMPower were also holding ongoing information sessions. It would have been good if that had happened prior to the funding roll out,' Zoë says.

'But you have to go through that cycle of a trial to figure it all out. We're now in a much better position: we are much more carbon literate; we understand what we're delivering and how we're delivering it; and, we've had the benefit of going through that upskilling activity and our team is now super confident at rolling out a second solar installation project.'

Learnings

'The learnings have been huge. I am proud of the improved skills and knowledge our team acquired through this process,' Zoe says.

'Our next project is installing solar panels on standalone properties, so we need to approach tenant communication a bit differently. For instance, we're investigating the need to translate communications for people who don't speak English as a first language. We want to make sure that our tenants clearly understand the benefits of this new system in their home, as well as how to use it and make the most of it. I'm really keen for us to have a handover pack that is pictorial, with clear language and simple dot points rather than an inverter manual that is not simple to understand.

'We're also thinking about having Unison stickers on the inverters so that if there's a common fault or there's a common light sequence, tenants know what is going on, and the language to report it clearly.'



Next steps

Unison is now planning to replace gas heaters at the end of their life with electric split-cycle systems to enable tenants to make most of the solar installations. It is also prioritising improving the thermal comfort of its properties and being proactive in making improvements, by gathering information such as which properties have roof insulation, so it is ready to take advantage of any future funding.

The VPF project has led Unison to have a bigger focus on environmental efficiencies. Unison has used the BOOM! platform to start generating business cases for other energy efficiency activities. It has also engaged a contractor to identify potential upgrades when conducting annual smoke detector testing.

'It has been the catalyst for our organisation to think more holistically about our carbon footprint and how we can improve the thermal comfort of properties. So, rather than only going in to repair the one issue that has been reported, we are looking at that property as a whole and thinking, if we had further funding available, what could we improve?' Zoë says.

'I think, in a wonderful world, everyone would have enough resources to be going out and doing the assessments on properties, so they are armed with the data when funding is available. And that was where we were lacking originally. We got it together quite quickly with BOOMPower's assistance and that tool will enable organisations to continue to gather that important information, so they have got the business case to be able to seek additional funding.'

Input from CHIA Vic and

BOOMPower:

CHIA Vic played an important role in matchmaking Unison and PMCH. It also assisted Unison to obtain additional funding via Solar Homes, which enabled the organisation to leverage the VPF grant to deliver even more solar.

'I really value that they initially set the momentum going and I think it's great that they brought associations together with this common aim and common drive of improving property and delivering benefits to tenants,' Zoë says.

'BOOMPower were very helpful, enthusiastic and good at explaining things in simple terms; switching from the technical to the understandable so there's a common understanding about what's being discussed. Nobody's left out of the room, which is really empowering and positive.'

About CHIA Vic

The Community Housing Industry Association Victoria (CHIA Vic) is the peak body that represents the not-for-profit community housing sector in Victoria.

CHIA Vic works to support the growth of community housing as the most effective and efficient means of ensuring more disadvantaged Victorians can enjoy the dignity of safe, secure and appropriate housing.