

PAIRING SOLAR AND SPLIT SYSTEM AIR CONDITIONING



VPF ENERGY EFFICIENCY UPGRADES: COMMUNITY HOUSING LIMITED CASE STUDY

About CHL

Community Housing Limited (CHL) is committed to providing good-quality, affordable and sustainable housing in regions of the world where there is a dire need. CHL is focused on developing housing options for those experiencing housing difficulty and continuously improving its service delivery to its tenants so they can enjoy stable lives, raise families, engage in employment or study, and generally have enough to live on to be able to live adequately day to day.

As at 30 June 2020, CHL had a portfolio of 10,892 properties under rental management in Australia across six states including Victoria, New South Wales, Western Australia, South Australia, Queensland and Tasmania. Over 2,000 of those are located in Victoria.

Project overview

The VPF grant assisted CHL to install solar on 63 properties as part of its overall rollout of 600 properties, with the VPF-funded projects delivered by January 2019. The properties were a mix of multi-level apartment complexes and standalone properties.

CHL invested some of its operating surplus to fund the project, in addition to the VPF grant, as a capital improvement.

'There wasn't a massive impact to our bottom line. I think our budgets, year-on-year, have been about \$200K to \$250K for Victoria, and that's something that we think that we can sustain for another three to four years quite easily,' says Tom Graham, CHL's National Asset Manager.

'We didn't want to just do a one-off program, and then that's it. We wanted to formulate our budgets to what we think that we can afford for a good five to eight years.'



CHIA Vic acknowledges the support of the Victorian Government.

BOOM!

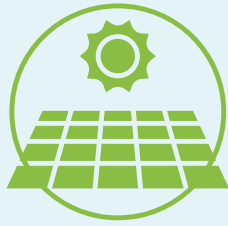
SMART
ENERGY

boompower.com.au

Impact

63

PROPERTIES
INSTALLED
WITH SOLAR



179.29kW

ANTICIPATED
KW PRIOR TO
TENDER

VS



186.84kW

ACHIEVED



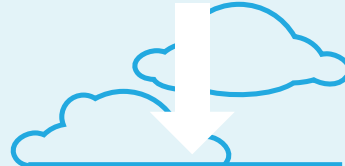
100 properties

split system air conditioning



206 MW/year

Solar generation



210 tonnes CO2

emissions saved per year

Equivalent to avoiding



104,957 kilos

of coal burned*

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

Motivation

Installing solar in its properties has been a priority for CHL since 2018, when it developed a broad energy strategy to assist tenants who may be experiencing energy poverty.

'Every year we do a survey of all of our tenants across the country, and one of the common themes is either, "Can I have some heating and cooling installed in my property," or, "Can I have assistance with my energy bills?" And the two go hand-in-hand, really,' Tom says.

'The running costs for heating and cooling would probably dip most of our tenants into becoming what we would define as energy poor. Typically, they are on a disability pension, or state aid.'

Whilst the majority of the benefit of installing energy efficiencies in its owned properties would go to its tenants, the organisation also recognised that it would increase the value of those properties.

'It's a win-win; for us on our balance sheet, and for the tenants for their day-to-day living costs,' Tom says.

Importance of grant

The VPF grant has enabled CHL to improve the quality of life of low-income tenants by maintaining or reducing their energy costs in the context of rising prices. Undoubtedly, this meant some tenants felt able to use their heating and

cooling to be more comfortable at home, rather than being fearful of the cost of comfort.

Challenges

The organisation did a desktop analysis of its owned properties and - within the constraints of its potential budget - prioritised those properties with the highest proportion of elderly tenants for solar upgrades.

However, some of the properties highlighted for solar installation were sited within complexes, raising concerns that tenants in the other properties would have an expectation that they would also have solar installed.

This led CHL to ensure it had the budget to install solar on all the properties it owned that were within a cluster, even if the desktop analysis showed they would provide less of a cost benefit than other properties.

Another challenge was bringing tenants along on the journey by identifying touch points for sending out information, such as 'Your home has been identified for solar. A contractor will be in touch to make a time to do a site visit'.

'The contractor was then responsible for booking in installation dates direct with the customer,' Tom says.

'We obviously would go out and do onsite surveys, and visits, to make sure the contractor was where they were supposed to be. But a lot of that communication was handled by the contractor.'



'You need to do quite lot of communication with the tenants because you have the initial site visit, then you've got the site induction of the contractor, and notifying them when the work's going to happen, all in line with the Residential Tenancies Act obviously. And then there was the communications around, "Well, you actually need to ring up and get your meter changed over", if their meter needs replacing.

'There was no pushback from tenants. It was quite easy to speak to the tenants at the complexes by carrying out an information session; the individual properties were more of a hassle getting information back, but it was just a timing thing. No tenant didn't want it to occur, it was just more of a case of getting the information back from them about their energy bills and meter numbers.'

For the first roll out, the requirement to pay connection fees came as a surprise, so CHL covered the cost (about \$130) for those first tenants. From then on, tenants were advised a fee may be payable, depending on their electricity supplier.

'They were absolutely fine with it,' Tom says.

Learnings

'CHL is in a quite fortunate position, in terms of its balance sheet, and its ability to fund some of these projects on its own, and we're massively fortunate to be able to capitalise on the VPF grant and Solar Homes.

'For smaller organisations that don't have that opportunity, utilising VPF and Solar Homes is a great way of providing outcomes to tenants. So, I'd encourage anybody to do it and to lean on CHIA Vic or other organisations that have been through the process, to learn from their experiences to make it easier.

'Have a clear communication plan with the tenant, and be upfront about any particular costs. Have some caveats in there that, "This is all going to be subject to connections to the grid. This is our intention, and we want to do it, but there are factors outside of our control."

Grid capacity

A couple of sites were unable to proceed post application stage to the energy provider due to the grid being unable to support the amount of solar that they wanted to install.



'Which meant that we could not install solar on that site so we had to remove it from the upgrade program. We then had manage tenant expectations at the original property and to substitute in a new property to be upgraded, which was a bit of a nightmare. But that's not something we can know until an application is put into the energy provider, which is annoying, but that's the way it is.'

To appease disappointed tenants, CHL installed more efficient hot water and heating components.

Switchboards and existing infrastructure



'Bear in mind that you may need to put some money set aside for things like roof repairs, and meter box upgrades.

We did have one scheme whereby the contractor went in and installed the inverters in an inappropriate place, which was a \$300 mistake.

'So you've got to think that you've got the VPF money, but actually you might need to allocate another \$15,000, \$20,000 to have a good product at the end of it and mitigate against any future maintenance liabilities, particularly on roofs where you've got tiles.'



Input from CHIA Vic and

BOOMPower

CHIA Vic was great in its lobbying for this sort of funding for community housing organisations, Tom says.

'The BOOM! platform was really handy. We wouldn't have been able to do the desktop analysis without their help and there were a lot of tight timeframes to meet for the VPF application and lots of questions that Alex and his team helped us to answer.

'Their response was really good, and it meant we didn't have to worry about tendering. That was all carried by the platform. That just saves on your administrative costs and time, so that was really, really useful. Because the installers are all preapproved, you know they are who they say they are and they are going to install a quality product. So, from that side of things, it's just a no-brainer for us to use BOOM!'

Next steps

CHL is planning to complete an analysis of the first year of solar, to see if the anticipated savings tracked as expected and plans to continue its rollout of solar on its owned properties.

'The problem that we're going to have in the not-too-distant future is we're going to be running out of CHL-owned properties to do this work on,' Tom says. It is unlikely the organisation would rollout solar to its stock of government-owned properties until negotiations on new 20-year lease agreements are finalised.

The organisation is also prioritising the replacement of aged gas heaters with electric split system units when an update is required.

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.