

A CO-OPERATIVE APPROACH TO SOLAR

VPF ENERGY EFFICIENCY UPGRADES: UNITED HOUSING LIMITED CASE STUDY

About United

United is a housing co-operative that manages 102 secure and affordable rental housing properties in the western and north-western regions of Melbourne and provides tenancy management for another 40 properties for women at risk of homelessness.

Project overview

United teamed up with South East Housing Cooperative (SEHC) to put in a joint funding application that met the minimum property criteria of the Victorian Property Fund grant. The grant enabled 63 standalone properties to have solar panels installed.

Unlike SEHC, which provided the additional funding required to install solar, United created an opt-in process for members - those who wanted solar agreed to contribute a proportion of the cost.



'The VPF funding has enabled United to realise its solar dream and provided a great opportunity for members to achieve energy sustainability, reduced energy bills and, importantly, a commitment to climate change.' – Peter Sibly, CEO

Impact



63

HOUSEHOLDS
BENEFITTING
DIRECTLY FROM
REDUCED BILLS

197.2kW

ANTICIPATED
KW PRIOR TO
TENDER

VS



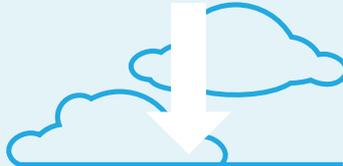
203.04kW

ACHIEVED



223 MW/year

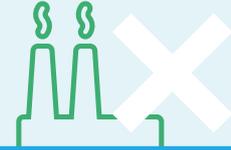
Solar generation



228 tonnes CO2

emissions saved per year

Equivalent to avoiding



251,225 pounds

of coal burned*

*epa.gov/energy/greenhouse-gas-equivalencies-calculator

Rationale

The cooperative's dual concerns about the impact of rising energy costs on its low-income tenant members, and a desire to be more sustainable, had led it to undertake some environmental initiatives prior to applying for a Victorian Property Fund (VPF) Environmentally sustainable housing funding grant.

'We had some members who were passionate about the environment and solar power,' says United's CEO Peter Sibly.

However, the high cost of solar had prevented United from being able to roll it out across its properties so it used the BOOM! platform to undertake energy audits of 15 of its properties to provide less costly upgrade options, such as draught-proofing.

United received funding from the Department of Health and Human Services (DHHS) to purchase eight properties for the Rapid Housing Program and was allowed to use the excess funds to increase the energy efficiency of the new homes.

'That was fantastic; we actually got to use that surplus money to install solar on eight family violence properties, put split reverse cycles heaters in four of them, water tanks on one house and heat pumps in one house,' Peter says.

That solar rollout acted as a pilot for the organisation, so when the VPF grants became available, United knew it had the experience to apply, and already had some energy audits completed by using the BOOM! platform.

Because United was too small to apply for the funding on its own, given the VPF's minimum application requirement, it teamed up with South East Housing Cooperative to develop its successful joint funding proposal.

However, even with the VPF funds, United still faced the challenge of finding additional money to finance its solar project.

Working with tenants

'We went to a general meeting and said there's an opportunity to get VPF funding that will pay 50 per cent of the installation costs of solar, so we've got three options: Either the co-op pays for the other 50 per cent outright; members contribute 25 per cent; or, members contribute 50 per cent.'



Of the 93 United properties that didn't have solar, 63 households opted in (eight properties weren't suitable) with the tenants committing to pay their proportion of about \$1,150 in weekly \$5 contributions over about four to five years.

'It was one of the best co-op things I've ever seen – 60 low-income tenants deciding to have a solar opt-in or opt-out program and coming to the final agreement that members should contribute 25 per cent of the cost of the solar installation, in the belief that the Co-op's surplus funds should be used to purchase additional properties for people in need of affordable and secure housing.'

'So, the VPF paid 50 per cent, the members 25 per cent and United paid the final 25 per cent, plus all the on costs and reimbursed the connection fee,' Peter says.

'We felt strongly they would get their money back based on some of the information we received from BOOMPow and other places.

Some of the more energy frugal tenants have been getting a feed-in credit from their electricity retailer. People have been bringing in their bills and saying, "Look at this, look at this." - Peter says.

'Our little solar program (including the original 8 properties upgraded with DHHS funds) has led to about 340 tonnes of CO2 offset each year, reducing our carbon footprint ...and it all made us feel quite good about ourselves.'

Challenges

A major project challenge was the 'enormous' amount of work required to get it off the ground, Peter says.

'After tenants agreed to opt in, we had a long consultation process. They had to sign agreements so we had to talk them through what the implications were, that they were going to commit to \$5 a week for the next five years and some tenants really wanted to talk about it and question it. Then there was the added time for bookkeeping. We account for it separately from their rent.'

The ordering was done in 10 property lots and there were issues with shortages of equipment and variations in the size of systems installed due to differences in the desk top audits and the installer onsite.

Staff considerations

The placement of inverters also involved negotiation with some tenants who wanted more say over where they would be sited.

'Getting the inspector around to get the compliance certificate was challenging because there were so many people getting solar at that time. So, we had a little bit of trouble with the coordination of the electrical contractors and some of them went there without contacting our tenants and that upset a few people. Particularly if they had a dog.'

However, Peter says overall the project ran smoothly and he would definitely be keen to be involved again, if there was another funding round: 'But I'd probably get a dedicated staff person just to work on it two days a week for six months.'

Learnings

The most difficult part of the process was at the end, when tenants need to give their energy retailer permission to reconfigure their meters so the retailer can see, and credit, the solar input, Peter says.

'Vulnerable tenants definitely need support to get through the process of dealing with retailers. It's just not easy and some retailers are more difficult than others.

'It's a challenge trying to convince someone that doesn't understand it at all and feels threatened by the whole process and hates ringing up official people and hanging on the line waiting,' Peter says.

'We instructed the tenant members to ring their retailers and say, "Hi, I've got solar, I want to reconfigure my meter." And if it was delayed, or they couldn't quite explain themselves properly, they often didn't get it done. So, people with English as second language or with mental health issues, they really struggled with that process.

'We've got two women at the moment who are particularly challenged who have just given us authorisation to access their electricity suppliers to try and get that sorted. But yeah, it's 12 months and they still aren't getting credit for their solar. They should be still benefiting from the solar that's being produced when they're using the energy because their meter will show that they're not bringing in more electricity from the grid...but they won't be getting the feed-in tariff.'

Input from CHIA Vic and

BOOMPow

Being able to utilise the BOOM! platform to complete the energy audits helped United begin its energy efficiency journey and BOOMPow supported the cooperative throughout the project by providing guidance, Peter says.

'I also thought it was a critical project for CHIA Vic to be doing with climate change getting worse by the minute and it brought the sector together. It was responsible for creating that really positive partnership we had with South East Housing Co-op, and just some of the meetings we've had were really useful.'



Tenant story

Tony, a pensioner and long-term housing co-operative member, has been a keen advocate for solar power for more than 20 years so he was rapt when the Victorian Property Fund grants made it an option for his home, and he was even more pleased when he started receiving hundreds of dollars in credit from the feed-in tariff.

'I have been trying to get solar for so long, but I hit a lot of brick walls and I had almost given up,' Tony says.

When United presented the option of accessing a VPF grant and members contributing to the cost of having solar installed on their properties, Tony was immediately on board.

'To me it was a no brainer because it was affordable and, financially, we are streets ahead; we're saving much more than we have to pay. I had done the rough figures I my head and I knew it would be good.'

Tony had been using AGL's 'bill smoothing' facility, which aims to prevent bill shock by allowing for fortnightly bill payments but has moved to regular bills now he has solar. He has received credits from the feed-in tariff and estimates he has saved about \$600 on his total energy bills from the previous year.

'It gives you peace of mind.'

In addition to the significant financial benefits, Tony says he enjoys seeing the positive impact on the environment the solar panels are providing, as detailed by the inverter's app. 'It shows you how you how much carbon emissions you have saved.'

A keen environmentalist, Tony has put his hand up to show other co-op members how to maximise the benefits of solar by timing the use of their electric appliances.

'Some people turn off straight away when you start talking about it,' Tony says. But he thinks seeing how solar can transform debits into credits on power bills may focus a few more minds.

Next steps

Following on from the VPF project, United was successful in applying for a \$3,000 Maribyrnong City Council grant to help educate its members to maximise their solar. The cooperative has set up a sub-committee to organise workshops and one-on-one sessions to go through things like doing washing during the day to use solar rather than grid power.

'We have set up a model vegetable garden at the office and are talking about recycling and plastic reduction and we are selling *Who gives a crap* toilet paper at a 50 per cent discount to all our members, which is helping to fund toilets in schools in third world countries,' Peter says.

United is now investigating battery systems for the solar installs and how to use more electric appliances in its properties to maximise the installations where possible, including making reverse cycle air conditioning units standard in all its properties.

United is keen to install electric hot water services but the cost of the water heat banks and required meter upgrades is a barrier.

It is also looking into possible innovations for the 32 cooperative members who did not get solar, such as new or additional external blinds.



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.