

TRANSCRIPT

LEGISLATIVE ASSEMBLY ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Tackling Climate Change in Victorian Communities

Geelong—Wednesday, 20 November 2019

MEMBERS

Mr Darren Cheeseman—Chair

Mr David Morris—Deputy Chair

Mr Will Fowles

Ms Danielle Green

Mr Paul Hamer

Mr Tim McCurdy

Mr Tim Smith

WITNESSES

Ms Vicki Perrett, President,

Ms Vivienne Burke, Secretary and Public Officer, and

Mr Tim Adams, Committee Member, Geelong Sustainability.

The CHAIR: Welcome to the Geelong public hearing for the Inquiry into Tackling Climate Change in Victorian Communities. I would also like to extend a welcome to any members of the public and the media present here today. This is one of several public hearings that the Environment and Planning Committee is conducting to inform itself about the issues relevant to the Inquiry. I will run through some important formalities before we begin. All evidence taken today will be recorded by Hansard and is protected by parliamentary privilege. This means that no legal action can be taken against you in relation to the evidence you give. However, this protection does not apply to comments made outside of the hearing, even if you are restating what you have said during the hearing. You will receive a draft transcript of the evidence in the next week or so for you to check and approve. Corrected transcripts are published on the Committee's website and may be quoted from in the final report. Thank you for making the time to meet with the Committee today. Could each of you please state your names and titles before beginning your presentation.

Ms PERRETT: Thank you. I am Vicki Perrett. I am the President of Geelong Sustainability.

Mr ADAMS: Tim Adams. I am a Committee Member of Geelong Sustainability.

Ms BURKE: I am Vivienne Burke. I am the Secretary and Public Officer of Geelong Sustainability.

Visual presentation.

Ms PERRETT: Thank you very much for this opportunity, and we welcome the chance to talk a little bit more fully about the information that we included in our submission. We are going to quickly tell you a little bit about our organisation and about our network, its evolution and our various activities. We will talk about some of the big activities that we are involved in, like Sustainable House Day, our war on waste and our community energy projects, and then look at some lessons and insights and maybe some suggestions at the end.

We are a not-for-profit group that was formed in 2007, and we are non-partisan. We are an incorporated community association. In 2017 we became a registered environmental organisation and charity. As you will see, we are largely run by passionate volunteers and are trying to have the biggest impact we can for our resources, time and capacity. We have got a growing email subscriber list, and we are also on social media. We have 180 financial members. A lot of people think they are a member, even though they are not a financial member. Our revenue has grown quite massively. It was less than \$10 000 in 2011, but this year it will be over \$260 000, largely on the strength of State Government-funded projects which we are delivering. We have built ourselves a reputation for under-promising and over-delivering. We never lose sight of the Margaret Mead quote that it is 'Committed citizens that are going to change the world'.

We have a mission which talks about 'Inform, Inspire, Connect'. Those three verbs are very useful to us, and most of our activities fit into those three actions. We like to share quality information, we like to build community resilience, we are advocating for the environment and we are about effective action, whether that is through projects or activities.

Over the last 10 or 11 years we have been growing our supporter base and trying to reach out even further. We often reach beyond the boundaries of the City of Greater Geelong—we reach out to the G21 region. We have also realised that if we want to educate and inform the people in the middle of that binomial distribution, we need to get out into large public events, because they are not going to come to our events; we like going to large public events and talking to people there. We have been building a professional network and a lot of very effective partnerships and alliances.

We also adopted the one Planet Living principles in the same year as the City of Greater Geelong in 2014, and we tend to align our activities to those. Because we cannot do everything under the One Planet Living principles, we often are now auspicing other groups as a way of extending our reach and then provide the governance and project liaison work involved. We are trying to build our volunteer capacity, but we are also finding that volunteers come to us as an option for building a career pathway. We have had a number of very successful cases where people started as volunteers and are now working full time in the sector; we think that is great. Obviously because of these increased grants we are doing a lot to improve our governance, accounting and administration.

So, yes, that is a little bit about how we have been growing our network. We were the first community group to be invited onto the G21 environment pillar. We were also on the Barwon Water advisory panel. We are the only community group that was asked to be a vision partner with the City of Greater Geelong when they did their new vision. Some of the partnerships are listed up there—I will not read them. But, certainly when it comes to some of the grants and project work we are doing, we have got some very important partnerships with businesses like ecoMaster, who are leading experts in retrofitting, but also with Deakin University and with CSIRO.

Here is the range of activities that we have been running over the last five or more years. Sustainable House Day has actually been running for 11 years. We deliver that on behalf of the City of Greater Geelong through a small grant from them and a strategic partnership. There is our sustainable directory, which is one of the first handouts I gave you. This is edition two of the directory. It is a way of giving people information and connecting them. It is like a business directory but also it will connect them to their community and build that resilience—you can find everything. That took over 2000 hours of volunteer labour, and we have now run out of that. We printed 16 000 copies and we gave them away free, so you have literally almost got the last ones. We are now looking at how we can actually convert this into an online resource going forward. Green drinks has become our little monthly networking event where we sort of get together with an inspirational speaker every month.

Then we started trying to run life learning classes as a way of running classes for younger people. It is a short after-work class that only costs \$15. People come along and learn a new skill and try something out and decide whether or not it is for them. We got a small grant from the City of Greater Geelong and launched our clever living seminar series, which was to be in partnership with their 'A Clever and Creative Future' vision. We partnered with the Geelong regional library and have been holding seminars on the top level there; we have virtually been having 150 to 200 people come along to those seminars. We have also started the first chapter of 'Cycling Without Age' in Geelong, in partnership with Cycling Geelong and MACS, the aged-care facility in North Geelong.

Three other key projects are the CORE task group, which we will talk about in more detail; the War on Waste Action Group; and also a microvillage planning group. So that is the little directory, and I have shown you that—there are over 550 listings in there—and that is probably enough of that.

Sustainable House Day is our major and most popular annual event and consumes our energy. This year we had 15 properties open on 13 October. We go one month after the national day because we are a one-team town and Geelong might be in the finals.

The CHAIR: Very sensible.

Ms PERRETT: Very sensible, and some of the volunteers would not want to be involved—and also the gardens have sprung into action a lot more. So this year there were 125 volunteers involved in that event. Fifty-five were subject matter experts, whether they be architects, designers like Tim, builders, energy raters or garden gurus—all sorts of people—and we recorded over 2700 visits. With this passive house in the bottom right-hand corner, they had 355 people go through in 4 hours.

Just some data that has come out: we now conduct a survey of participants, and it is very interesting to see that we are reaching out to a wider audience and that more people are starting to engage with the need to live more sustainably. Sixty per cent of people are coming for the first time. Ninety-eight per cent liked seeing homes firsthand—it helps them understand. So seeing is believing and understanding. Ninety-three per cent liked

being able to talk to the home owners. Fifty-eight per cent were more confident to go and ask for advice after going to the Sustainable House Day, and 92 per cent were more likely to include sustainable design, materials and products in the home. So I think as an event it has some real, significant outcomes for both adaptation and mitigation.

This is going to play a 1½-minute summary to show you that we now call this a learning festival—hopefully. Cross fingers, here we go.

Video shown.

Ms PERRETT: Don't worry. That was just Mick inviting people to come in. You might not need the sound.

So we did a lot of live Facebook feeds—in fact we had 11 different videos that we made for the event, and they received over 25 000 views. We always try to have a diversity of houses, from straw bale to tiny, obviously passive solar, ones on a budget, ones with battery storage—and we also get a lot of professionals and experts. This is an urban farm, and this is the tiny home out at North Geelong—and a landscape architect, owner-builders, renovations in progress. People can be a bit daunted if they see a beautiful, brand-new home that they cannot afford, but we actually show renovations and how to go about them. So there are lots of people engaging and talking and seeing and learning—and my granddaughter having fun. And the passive house in Ocean Grove. So those videos are up there on Facebook. We will actually leave them up there so that people who missed out can still see them. Thank you.

I do not know, Viv. Do you want to talk about going to Pako Festa?

Ms BURKE: Well, for the last four years—four or five years it might be—we have been in the parade at Pako Festa and also had a stall, because it is a huge community event and they are not people that we would normally be able to engage with. So we go in our blue and white and present a forceful and informative display and try to encourage people to not necessarily join up but to take the messages home with them, and those flyers that we have given you are the sorts of things that we would hand out. So we distributed thousands of directories over a number of years, the little postcards, the War on Waste information—something that people can take home that is simple and that has the key messages in it. It is an effective way to get the message out there.

Ms PERRETT: The War on Waste: if you look at the One Planet Living principles, we have spent a lot of our attention on the zero carbon one for obvious reasons, to lower greenhouse gas emissions. But the next one which we found very important was the zero waste goal, and we found that the *War on Waste* ABC TV series did a fantastic job of engaging people and raising awareness and making them realise there is no 'away' and that our oceans are drowning in plastic and single-use plastics have got to stop, and how can we do it. Rubbish collection is an essential service, so we do partner and work very collaboratively with the Barwon South West Waste & Resource Recovery Group.

We see this crisis as an opportunity to reset social norms and to actually nudge people into changing their behaviour. We all create waste, but we can all be part of the solution. With some of our other messages and activities around housing and all that, not everyone owns a house but we all create waste, so that is a good thing to be involved in. Thank you.

Ms BURKE: Although we are quite quiet at the moment on the recycling front.

Ms PERRETT: We do have a Recycle Right classification challenge that we take to a lot of events. We are not using that at the moment until we actually have kerbside recycling up and running again. But we have made it the subject of a number of our activities. We have got a War on Waste Action Group and we are partnering with a lot of organisations. We have taken our Waste Wise and Wash against Waste messages to the National Celtic Festival and run teams of 30 and 40 volunteers each year there to offer a Wash against Waste service so things are not going to landfill. We have also been doing a bit of advocating at local, state and federal levels, writing a number of submissions. We have actually got the City of Greater Geelong to sign on to the MAV plan, and we suggest that it is time for a cash for container deposit scheme. I guess Victorians do not like to be laggards, and we are now the only state that does not have a CDS.

We go to a lot of the waste conferences, and we have been part of the workshops that DELWP and the waste authority have been running around the circular economy, and we are very much also pushing forward the need for a FOGO trial to get rolled out in Geelong. Food organics, green organics—the City of Greater Geelong invested a number of millions in creating a green organics plant out at Lovely Banks. That cost several million dollars and is very well engineered, but it can only take garden waste; it cannot take food organics. That is going to be a bit of a conundrum for how they move forward because normally that is done in a closed-in vessel situation.

This is a fairly new project. We started it this year as part of Melbourne Design Week. They wanted to bring in Geelong as part of the UNESCO City of Design business that the city signed up to. We have been approached by other groups, and we know ourselves from Sustainable House Day that housing affordability and the carbon footprint and energy efficiency of houses is not changing anywhere near radically enough. We build the biggest, most leaky houses in the world, and it has got to change. Eighty-seven per cent of Geelong's building stock is detached, standalone houses, and the average energy rating is 2-star in Geelong. We have got global warming happening and mega heatwaves coming and all of that, so we have created this little project called Live Small Live Eco. We have got a task force of 20 people and a mailing list of two or three times that. We have also partnered with Deakin HOME, who have actually received grant funding, and they are actually doing a number of research projects on that. One is looking at the design aspects and the planning issues, and the other one is actually looking at the social issues of how do we actually design small cluster-dwelling houses which are more environmentally sensitive and more socially connected and all of that, because loneliness is another issue. Do you want to say anything about that, Tim?

Mr ADAMS: Well, just that we see that there are constraints within the current state planning scheme, which is then operated in Geelong and Surf Coast, that prevent easy access to some of the things that we are considering. So to have a small house cluster is impossible as an as-of-right development option in the planning scheme because of the requirements for vehicle parking, vehicle circulation and private garden spaces as compared with shared garden spaces. So we are trying to set up an example of what a different vision could be, which would then potentially influence changes to the state planning policy.

The CHAIR: To an extent we are achieving that sort of small-scale living in retirement-type villages, where you might have common kitchens and mess halls and common gardens and those kinds of things. Should we be looking at encouraging more of that? Not necessarily for retirement but more generally?

Mr ADAMS: The vision here is where that type of model is currently provided either by not-for-profit groups or for-profit groups under the provisions that funding comes from the Federal Parliament and all of that, what we see is a situation where people can actually buy freehold portions of a microvillage. It is not something that is managed by an overarching entity. People can freely trade their dwelling within—

The CHAIR: You would be a member of a body corporate?

Mr ADAMS: Yes. That is certainly not happening at the moment, and part of that is because of constraints in the planning system.

Ms PERRETT: Excellent. Thank you. A major focus of our activities over the last five years has been on the community energy space, so we have started initially on a solar donation model. We eventually raised \$13 000, and that included a Geelong Connected Communities grant, and put nearly 10 kilowatts of solar on the multipurpose room down at the South Geelong Primary School. It is a wonderful visible location. The school in turn has promised that they will take the savings that they are making by not buying that power and put it into sustainability programs. That might be a kitchen garden with the Stephanie Alexander program, building bike sheds, running bike ed and other sorts of things which will contribute to sustainability. The donation model, we discovered, is hard work. We would like the opportunity to try and pursue putting solar onto state schools but it has got some issues, so we will move on.

So then we moved on to a community investment model, and we are very grateful for the New Energy Jobs Fund because we received initially in round one a scoping grant, and we were able to actually deliver a whole business case within that first six-month period. Then we were able to be successful to get an implementation

grant which allowed us to go forward and put the 560 solar panels on the multicultural aged-care centre out in North Geelong.

On the community investors—I think there might be one more slide, if you go to the next one—MACS became an excellent host site and partner. We raised \$150 000 from the community in seven days, so there is a definite appetite in our community for that. Those 20 investors who each invested \$7500 are now getting a very good return on their investment. We have made our first dividend and interest payment back to the investors, and they will progressively get their interest and their principal back over the next 10 years. At the end of that 10-year cycle the solar system will be gifted, in effect, to the aged-care facility, which will have another 15 years to use it. So there are great positive environmental and community benefits, and we are looking for host site two to make CORE Geelong two happen.

The CHAIR: So what is the return on investment? I can get 2 per cent at the bank I think, maybe, if I am lucky.

Ms PERRETT: We estimate that over the life of the 10-year period it will average 5 per cent.

The CHAIR: Okay; that is good.

Ms PERRETT: We actually also are making a contribution back to our public fund too, which will do more good works. One of the other things that we wanted to do was to increase the take-up of solar and renewable energies in the community, and so we had been asked for quite a while by our supporters to actually run a bulk buy. We did eventually do that last year, and we decided there were three roadblocks: one was about confusion, because people glaze over about the technology and the choices you need to make; the next one was around trust—‘Who do I trust to actually get advice from and to install it?’; and then, ‘Am I getting good value, what are my warranties like and can I afford to pay for it?’. So after due diligence we partnered with ShineHub. They had a good admin process and they were offering quality tier 1 hardware with extra warranties, and most importantly for us, they engaged local installers, because we are very much about growing the green jobs in our own region, so that was important.

We had over 800 people attend the 16 free information sessions and over 200 systems were sold. We are in the process of conducting a survey of our customers at the moment, but we are already seeing—the one that jumps out for me—that 90 per cent have changed their energy use patterns. They are now running their dishwasher and their washing machine during the day when they are generating, so they are using their clean energy to do things like that, and some are interested in adding batteries and some want more panels and all of those sorts of things.

The other social benefit from this is that we actually donated—with ShineHub—four systems to vulnerable people in the community, one of which we also got support from Rotary for. We actually put—how much was it out on the Samaritan House at Newcomb?

Mr ADAMS: It was 10 kilowatts.

Ms PERRETT: We installed 10 kilowatts plus batteries, so that is going to save them, I think, about \$4000 or \$5000 per annum in electricity that they can now put into other things. We thought that was a really good social dividend.

Okay, thank you. I am going to hand over to Tim because this was his concept, which was put forward at a DELWP roundtable meeting, wasn't it?

Mr ADAMS: Yes, it came about at a meeting in Geelong that was being run by the Barwon south-western region to look at climate change innovation and adaptation. My background is in building design and sustainability consulting, and when people at that meeting were talking about building resilience in the community, my warped thinking process said, ‘Oh, we'll make buildings resilient’, and so that festered along for a couple of years. I presented it to the Liveable Cities Conference in 2016, but then when the Climate Change Innovation Grants program was made available through the State Government, we put in an applicant to that process and we were granted \$300 000 to progress the idea.

We are looking at 20 properties of low-income people with vulnerabilities as far as their health is concerned in the Geelong region. We are looking at a house and identifying a part of the house which can be upgraded reasonably easily—with a draughty ceiling, putting some more insulation in; maybe retrofitting windows; picking off the low-hanging fruit to make the house work better than it is at the moment—and then putting in some photovoltaic generation on the roof and a high-performance reverse-cycle appliance to heat and cool. We were told that if we put an appliance into a property, people will not turn it on if they think it is going to cost them money to run. So we need to make sure that the photovoltaic is generating more than will be used and is even reducing the household bills for the other power that the house is using.

We are assessing the buildings using the residential efficiency scorecard, which is a development of the DELWP team. We are also using the NatHERS system, so we are going to be considering the output from the NatHERS energy rating and the residential efficiency scorecard to see what correlation there is. We have done the assessments and we are just about ready to embark on the installation process. The CSIRO will then monitor their dwellings for the next 18 months and we will see how people's behaviour changes and make sure that people with health vulnerabilities are kept safe in extreme weather events—either hot or cold.

The CHAIR: I assume that program is quite scalable. It could be scaled and run across—

Mr ADAMS: It is, yes. What we want to do with this is to prove the principle and then it can be rolled out pretty much anywhere. What we are finding with this, however, and with the residential scorecard—I am on the project advisory group for the scorecard in Melbourne as well—is that it is a good program. It goes into households and assesses what people can do to improve the performance of their houses. We are identifying, however, that there is a lack of skilled-trade capacity and knowledgeable people on the ground to actually do the work. So that is one of the things that we would like to make you aware of here: all of the goodwill is wonderful and metrics can be made and studied, but I think to progress with climate change adaptation we have got a huge scope for a cohort of people to actually implement the work and have suitable training.

Ms BURKE: Specifically for retrofitting.

Mr ADAMS: That is in this area, but across the board. Anything to do with climate change innovation means we are going to have to develop a whole range of new activities to address it, and we need people on the ground to be able to do the work. We have found with the national disability scheme that there is lots of money being thrown at it but there is a logjam in that system with the lack of people to actually implement the scheme, and we do not want to have the same sort of thing when it comes to climate change adaptation.

The CHAIR: Okay, just thinking that challenge through, that might mean something as simple as either providing additional TAFE training for existing tradespeople, with current TAFE students doing an apprenticeship in building or plumbing or electrical or whatever it might happen to be, or providing a module of training to be able to identify efficiencies that can be made in dwellings. Is that effectively what you are suggesting?

Mr ADAMS: Yes, definitely, and at the head of that process is that people need to be developing course content. The way that the education system works—it is not my core area of knowledge, but the way I understand it works—is it is a business model these days and you have to demonstrate a demand for courses before people will write the courses and put courses in scope within an RTO. So it needs leadership, as I said, from Government to give us vision pathways to say, 'These are the things that the community needs to achieve' and 'These are the ways to do it' so that all of those things are put together in a logical sequence.

The CHAIR: It might be more training in terms of existing trades-qualified people, but in terms of new students coming through the system, it is not necessarily more; it is just smarter training.

Mr ADAMS: And the course content needs to be developed.

Ms BURKE: Yes, it is not there at the moment.

Ms PERRETT: We probably get an inquiry every week for a recommendation when it comes to installation or doing some of those sorts of things or retrofitting, draft-proofing. In Geelong there are no businesses that do it, so that is why we are partnering with ecoMaster on that Climate Safe Rooms project, which is a Melbourne-

based scheme. So there is an opportunity for some more green jobs in our region, and we would like to see that happen.

The other things that we see could happen in Geelong around community energy are—obviously we want to try and replicate what we did at MACS. We have probably done more than 40 solar feasibility assessments. But in a lot of them they look at the return on investment and say, ‘Really? It’s that sure, is it? We’ll go and do it ourselves’. Which is great for the environment, but it does not get us our second project. We are awaiting the outcome of a tender. We have partnered with the Brotherhood of St Laurence over the Energy Savvy Upgrades, which is quite similar to that Climate Safe Rooms project, but the home owner would be contributing towards the cost—50 per cent. Obviously Adrian is going to talk to you more about the Barwon Region Alliance for Community Energy, but Geelong Sustainability is one of the partners in that group. We are looking at a possible collaboration—Deakin are putting in a grant application for a community microgrid, but we also would like to think that we could have a community power hub in our region. I think we have demonstrated clearly that there is an appetite for community energy and the capacity to run programs.

One of the things that we did earlier in the year was bite the bullet and create a social enterprise. We want our own organisation to be more sustainable, and grant funding is not necessarily ideal and comes with long strings and long waits and a lot of work to write. So we are actually taking some of the services that we currently provide with the scorecard assessment and thermal camera imaging as the start-off of two services that will be put out into a social enterprise, and we have just last week appointed our first executive officer. It is probably going to consume all of our spare equity, but we think it is worth it. It is worth the risk, and any profits would support our mission to enable us to continue our activities. So we will also look for other opportunities as well.

The CHAIR: I am just trying to understand the concept. So that is an existing dwelling, one that was built in the 60s or whatever. I am interested to know what its energy rating currently is—I would probably find out it is 1 or 2, I guess—and then presumably that person would then make a recommendation as to some of the things they might do to achieve more stars.

Ms PERRETT: The scorecard goes beyond the building envelope; it actually looks at the major appliances too. Then we will tell them, ‘What’s the low fruit? Your best’—

The CHAIR: ‘Your fridge is old. You need a new fridge’.

Ms PERRETT: That might be what needs to be replaced, or ‘You might need more insulation in your ceiling’ or ‘Hey, you’ve got no insulation in your walls’ or ‘Hey, if you’ve got the opportunity to do under floor, here’s the expert’. Yes, so it is: where is the low fruit as far as trying to get an improvement in thermal comfort and a reduction in energy bills?

The CHAIR: The \$250 fee that you are going to charge, is that just a portion of the cost or is that all of the cost?

Ms PERRETT: If you would like to go back, because I have just pulled this off the website. So \$350 to \$400 is the cost of the scorecard assessment. So the assessor will come into your home and they will ask for all your bills, they will look at all your appliances, they will be in your roof and all of that sort of stuff. Then you will get an assessment, a two-page report, with a star rating and advice about in what order you should tackle the problems that your house may likely have.

The CHAIR: The assessment is going to cost \$300 to \$400. Is that what you are charging the client as well?

Ms PERRETT: The home owner, yes.

The CHAIR: Okay. And that is a cost recovery from your perspective?

Ms PERRETT: It is possibly going to have to get reviewed a little bit going forward, and we do want to make sure that it is sort of benchmarked with what is happening commercially. That is going to be very tight next year, but that is where we are starting. But for a lot of home owners that is still considered a lot.

The CHAIR: That is exactly right.

Ms PERRETT: Even if that could be supported. So for any survey we run at the moment the prize is a scorecard assessment. We are trying to get people to do the survey because we know that they would like the scorecard. In our survey of the people who have taken up solar, 40 per cent said they would really like to get one of these scorecard assessments to understand, 'What should I do next?'

The CHAIR: From an economic perspective, those that can least afford it would probably get the most benefit.

Ms PERRETT: Possibly, yes, and that is why the scorecard and that has—

The CHAIR: From a family economics perspective.

Ms PERRETT: Yes, because they are putting more of their income into their utilities. The thermal camera imaging inspection is a very visual way of actually seeing 'Hey, there's a missing batt in my ceiling'. We have had someone who has actually been able to settle a dispute in VCAT on the basis of their inspection report, which showed that there clearly was not something there, even though the builder was saying, 'Oh, I put it there'.

Mr ADAMS: And it is all about knowledge about what is possible and getting it from people who are impartial with regard to that advice, so they are not getting it from somebody who has got a vested interest in selling them—

The CHAIR: Selling them a fridge.

Mr ADAMS: Yes.

Ms PERRETT: Yes, and that is where there is that independence. With community energy in Victoria, I understand that the Coalition for Community Energy has made a presentation to you, and we would commend their plan. We think all Victorians should have access to renewable energy, regardless of their financial means. We know when we talk to people that they want to be part of the solution, but with some of them they are renters or their roof does not suit it and things like that. So we would like to recommend that there is a community energy target going forward with the new VRET. You have done the pilot on the community power hubs, and I think that has now been evaluated. We would like to think that the Barwon region is well situated to be able to become one of the centres for a power hub.

The CHAIR: How would that community energy target operate from your perspective? Would it be a bit of a carve out of VRET? Would it be something that sits to the side?

Ms PERRETT: I think so. There could be a small portion that was dedicated to go to community energy.

The CHAIR: And what sort of criteria might sit around that? Would it be a full-blown application, or would it be a supported application process?

Mr FOWLES: Would there be size limits?

The CHAIR: Size limits—those things, yes. What would your suggestion be around what that might look like?

Ms PERRETT: I am not the expert who would probably comment on that. It is probably Adrian, who will follow, who will give you more advice.

Mr ADAMS: Size limits are constraints by the investment potential to a large degree. We have in fact spoken to people developing large-scale renewable energy projects, whereby they would consider a portion of their funding coming from community groups, so that is another vehicle there. If a community group is going to do a standalone thing, then there are constraints on the capacity to implement something, but we can get involved as a partner in other larger projects.

Ms PERRETT: There might be one wind turbine within a wind farm that could be designated to a community, for example, something like that, assuming they can raise the funding. If there was a carve-out

percentage, that would help too, but also the opportunity to pilot a solar garden where the actual benefits stay with a person. You have got the solar for renters program, but if that renter leaves that house, the solar panels are still on the house. Is there something that can be more portable that goes with the person? They could then have that feeling that 'I'm using renewable energy. It doesn't matter where I'm living; I'm using renewable energy'. Also, obviously going forward our council did not quite get over the line to declare a climate emergency, but there are a number of councils with excellent zero net emission plans, and it would be great to see them rolled out so the knowledge can then be shared in the future going forward.

When it comes to some of the things we have learned, you will never have enough financial members to cover all of your operating costs, and applying for grants is hard work. One of the biggest problems for us is volunteer burnout. I am V1; that is V2. We are in that demographic where we have dedicated our retirement—we were professional people in the education sector; we are virtually dedicating our retirement to the climate emergency. However, it is perhaps unsustainable to be working full-time as a volunteer, which is what we are largely doing at the moment. Also, when it comes to volunteers, it takes a long time to develop their skills and to mentor them and to support them. We have just recently found someone who is willing to be a voluntary volunteer coordinator for six months, and we are going to try and improve our processes around that. Also, to be advocates for sharing that information out and engaging with the public you do need really competent volunteers in that area for event coordination, volunteer coordination; a webmaster, comms and all of that if you are trying to get things into the paper; you need a publicist who will help you and things like that. So some of that is important too.

We do not have any physical premises, so we all work from our home offices and our resources are stored in an ad hoc fashion. It is not ideal, but it is the way we are. We were amazed at how much the group was able to kick on once we had a paid project officer under that first New Energy Jobs Fund grant. That was a real lesson for us. We have deliberately gone out and nurtured a group of pro bono experts that help us in legal and financial areas, an in insurance sometimes. We have also done a lot to try and improve our website, social media presence and comms, but it is a piece of string: there is always more to do. Local councils—their budgets are very limited and there are often just not enough resources to provide us with much support or assistance. I think that point that Tim has already made about the lack of skilled people to retrofit houses, so—

The CHAIR: I am just conscious of the time. Colleagues, have you got any questions to raise?

Mr MORRIS: I would not mind coming back to the energy efficiency discussion.

Ms PERRETT: I think that is our last slide anyway—that one.

Mr MORRIS: Chair, do you want to finish that discussion first and then come back?

The CHAIR: Yes. If you wanted to finish your slide, that is fine. Then we will hand to the Deputy Chair, who has clearly got some questions.

Ms PERRETT: The last slide is just to say that not-for-profits like us can deliver very effective and very cost-effective programs in the community. We would like to suggest that something like a Landcare model could be piloted, where there was a paid part-time facilitator that could be coordinating some of these events—you cannot always rely on volunteers.

The CHAIR: Coming out of the landfill levy?

Ms PERRETT: No, no, not necessarily. I am just saying that Landcare are funded to have a part-time facilitator, whereas in the sustainability movement there is nothing—there is no funding coming from anywhere. Community members are often in a better position to nudge our fellow community members to change their behaviour, and maybe we can do that more readily than council or State Government offices as far as modelling behaviour and trying to reset social norms.

The CHAIR: A large part of your work is reducing waste and all of those things. There is no reason why that could not potentially be funded out of the landfill levy.

Ms PERRETT: Oh, okay.

The CHAIR: Because ultimately—I am just thinking out loud—that reduces a financial burden on local government.

Ms PERRETT: Yes, that is true.

The CHAIR: We might think about that a bit.

Ms PERRETT: We are actually just starting a project called green cafes, which will actually try to work one on one with cafe owners to reduce their landfill and to improve their waste recycling. So that is all right. I think we have covered those other points anyway. You wanted to make a comment about the pathways?

Mr ADAMS: Yes, just that we can provide really good information at the grassroots level, and there is a hunger that we see at the base, and a lot of these things are happening from the ground up rather than the top down. We can be a vital part of doing that. If Government can assist in giving that vision of pathways to make the change, at the moment, as we have shown, we are involved in different program areas that have been assisted by Government, but what we see is that they are largely in silos and there often is not good correlation between all of those things. So an overarching contribution from State Government, I think, could make a good benefit there.

The CHAIR: Terrific.

Mr MORRIS: I just wanted to come back to the energy efficiency conversation. I guess the stat that really struck me as you were going through is that average rating across the city of 2. I guess in part it is explained by a relatively high average age of housing stock.

Mr ADAMS: Correct. The regulatory impact statement that was done for State Government before the introduction of the 6-star provisions identified that statewide across Victoria we were building—and this goes back to 2010, around there—at 2½ stars. So that was the current standard of new builds at that stage, and then obviously everything that came before that was worse. So, yes, our housing stock at the moment is pretty appalling. We have got to that stage, in my view, and I think it is the consensus, because natural gas in Victoria was supplied for basically free. It was supplied at the cost of distribution, not at the cost of the energy. It meant that we kept building very, very ordinary buildings for a couple of generations too long and we made them comfortable by burning gas.

The CHAIR: Burning lots of gas, yes.

Mr ADAMS: We have got to get somewhere beyond that, and going all electric as far as residential accommodation is concerned is I think the current wisdom that has been confirmed by people like Beyond Zero Emissions and a whole range of other people. To a large extent householders can generate their own electricity sufficiently. My own situation is with a 3-kilowatt system I generate 140 per cent of the electricity that we use in an all-electric house. It is a high-performance house because I made sure I did it for myself, but it is an example of what is possible. With the residential scorecard and the NatHERS energy ratings, they measure the whole-of-house performance, and that can be very daunting for people.

Mr MORRIS: I can imagine.

Mr ADAMS: Yes, so a large poor-performing house is going to be a bit more difficult and expensive to deal with, but that is where the Climate Safe Rooms idea comes from, that you can be overwhelmed by a whole house but that is not necessarily what everybody has to do. You can make sure that at least a part of the house is going to work efficiently and cost-effectively and keep you comfortable.

There is a *Lancet* article that we were aware of when we started that study that showed that in Australia there are 6.3 deaths per 1000 people in winter due to cold in houses, which is double that in Sweden. That is because our houses are so poorly built.

Mr MORRIS: I am not surprised, but it is a confronting statistic.

Ms PERRETT: And then the difference between a 6-star house on the plan and what is actually built is—I think there is research that suggests that at best it is 4.5, on average.

Mr ADAMS: Being less than the design.

The CHAIR: I think our heatwaves often kill more people than bushfire which is occurring at the same time.

Mr ADAMS: Yes, that Black Saturday week, yes, that is correct. But there are in fact more deaths due to cold in Victoria. We have those outbreaks of severe heat and they are immediate and catastrophic, but the total numbers and the cost to the health system is in fact greater—

The CHAIR: During the winter months.

Mr ADAMS: from people living in cold houses. That raises people's blood pressure which then brings on all sorts of chronic diseases associated with high blood pressure. So if we want to save the cost to the health system, the thing to do is make people safer and more comfortable in their dwellings.

Mr FOWLES: So economically, is the lowest hanging fruit then you think in these insulation and energy efficiency-type measures, as opposed to solar power generation?

Mr ADAMS: It is a combination, but yes, the cheapest energy to buy or to generate is the energy that you do not need in the first place.

Ms PERRETT: It is easier to save a watt than generate a watt.

Mr MORRIS: Just to try and crystallise it a bit, if you could only—if you had a choice of either, given what you said about generating 140 per cent of your consumption, if you could either put in solar or bring your house up to 5-star or 6-star or whatever, where would you get more bang for your buck?

Mr ADAMS: It is more complex than a simple situation—

Mr MORRIS: No doubt.

Mr ADAMS: Part of the Climate Safe Rooms—I have been doing the NatHERS ratings for that project, and some of the assumptions that I made of potentially putting insulation on ceilings as a first effort, because we know in a cold climate the majority of heat leaves the house through the ceiling—when there is no insulation, yes, put insulation in the ceiling, but we found even in the first house that we did that there was already R1.5 on the ceiling. By taking that to R5 by putting an extra R3.5 on top, it improved the performance of the room we were dealing with by 8 per cent.

The CHAIR: How much?

Mr ADAMS: By 8 per cent,

Mr FOWLES: Which is not that dramatic.

Mr ADAMS: Which is not a huge amount. By putting R2 insulation under the floor of that room, it improved the performance of that room by 23 per cent. I know a bit about all of this, but I keep learning things as well, and that was a really instructive exercise.

The CHAIR: I have got to ask the question. This may be impossible to answer, but a typical 1960s weatherboard house built in Geelong with no insulation, original build, it might have 1 star or something—it will have something I guess—but what sort of typical costs might be associated with bringing that up at least sufficiently that we have an impact on the health system? If that makes sense.

Mr ADAMS: We are spending \$10 000 to \$12 000 on these projects that we are doing. We were funded \$300 000 from the Climate Change Innovation Grant. Geelong Sustainability are putting some money into the project as well and then we have got—

The CHAIR: That is for one room?

Ms PERRETT: That is one room.

Mr ADAMS: Yes, that is right.

The CHAIR: So to do a three-bedroom, two-living-room sort of house it is not going to be \$10 000 to \$12 000, it is going to be—

Mr ADAMS: Maybe \$30 000.

The CHAIR: Thirty. Yes, okay. Right.

Ms PERRETT: Yes. The question that David asked Tim, I actually asked to Simon Corbell at a seminar that was held down at Barwon Heads a number of years ago on community energy, and he actually made the comment, 'Let them get solar first'. And I think as you saw in that statistic, 90 per cent of the people who have now got solar and/or batteries are monitoring their uses. I know from my own perspective, when we got even our 1.5-kilowatt one six years ago, we were going, 'Why aren't we generating anything?'. We then went and investigated: our freezer was using 3 kilowatt hours a day. We got rid of the freezer. So sometimes that is the nudge to then learn more.

The CHAIR: To start learning more, yes.

Ms PERRETT: Yes, learn more about it. That will not work for everybody. There will be some people for whom that might be too hard. But for those that are capable—

Mr MORRIS: A lot of people are going to engage though.

Ms PERRETT: they will engage.

The CHAIR: What is the payback period for your climate energy room? So, let us say that you do one room for \$10 000 to \$12 000. What would you typically expect the payback period to be in terms of reduction of energy costs? Assuming you do not put panels and other things on.

Mr ADAMS: If you do not put panels on?

The CHAIR: Yes.

Mr ADAMS: It would probably be quite a long time. The sweet spot is in fact put panels on—because panels have become so cost-effective now—and potentially get rid of gas. If you do not have the daily connection fee for gas, you save yourself a whole lot of money. Again, that starts to become very complex. At the other end of the spectrum is the understanding from new project builds and new subdivisions that have put a higher standard requirement on them than our National Construction Code. So, for instance, Aquarevo out in the Clyde region on the eastern side of the bay, the Cape Paterson ecovillage and Mullum Creek north of Melbourne where there is a 7½-star covenant on a development and a minimum size of PV capacity, they are finding that the payback on that sort of thing—to go from 6 stars base build to 7½ plus PVs and not connecting gas—is around four years.

The CHAIR: And the buildings are presumably designed to last, what, 100?

Mr ADAMS: Yes. And the other way that I look at it for existing houses is that you look at spending an amount of money, you look then at what you expect that to do with reduction in your utilities accounts and you say, 'Well, okay, if I put \$10 000 or \$15 000 in, what's the return on that just as an annual return by saving on the utilities accounts as opposed to putting your money into your superannuation account?'. And I will tell you, every time you are better off doing the work on your house than putting money into superannuation.

The CHAIR: Okay, that is interesting. Colleagues, any further questions? David? All good. Fantastic, thank you.

Mr FOWLES: Keep up the good work.

Witnesses withdrew.