

CORRECTED VERSION

ECONOMIC, EDUCATION, JOBS AND SKILLS COMMITTEE

Inquiry into community energy projects

Traralgon — 6 March 2017

Members

Mr Nazih Elasmr — Chair

Ms Dee Ryall — Deputy Chair

Mr Jeff Bourman

Mr Peter Crisp

Mrs Christine Fyffe

Mr Cesar Melhem

Mr Don Nardella

Witness

Mr Dan Musil, Secretary and

Mr Ian Southall, Investor, Earthworker Cooperative.

The CHAIR — Thank you. Let me introduce you to the Committee Members first of all. I've got Cesar Melhem on my right, Peter Crisp, Don Nardella. I'm Nazih Elasmr.

Welcome to the public hearing for the Economic, Education, Jobs and Skills Committee Inquiry into community energy projects. All evidence taken at this hearing is protected by parliamentary privilege. Any comments outside the hearing are not afforded such privilege.

Hansard is recording today's proceedings. We will provide a proof version of the Hansard transcript so you can correct any typographical errors. And I would like to invite you to state your name before and then opening statements, whatever you would like to say, then allow us some time to ask you some questions. Welcome.

Mr MUSIL — Thank you. My name is Dan Musil. I am a Morwell resident. I'm undertaking PhD research through Western Sydney University looking at economic transition and I'm the Secretary of the Earthworker Cooperative. And I'm grateful that another member of the cooperative, Ian Southall, was able to come unexpectedly today as well to say some things.

Mr SOUTHALL — My name is Ian Southall. I'm a member of the Earthworker Cooperative. I'm an investor in it. I have been involved with the cooperative for probably six or seven years in a small way. I'm a great believer in cooperatives because if you look around our community there is a number of them that have worked successfully over many, many years and I believe this worker-owned cooperative in the Valley will provide some hope for a number of workers working in and around renewable energy that will provide economic justice for some of those people.

Mr MUSIL — Cool, so thank you for having us here. We're very grateful for the chance to be able to speak with you and we're grateful that State Government is looking into this issue thoroughly. We're grateful for that. So I'm going to talk a bit about the Earthworker Cooperative. I'll introduce that quickly and then I'll go through a few points to cover the terms of reference. Then I'll ask Ian to make a contribution as well and then we'll happily take some questions.

So if you're not quite aware the Earthworker Cooperative is a long running community initiative. It's a member-owned and run organisation that is working to set up a whole network of community and worker-owned enterprises to provide dignified employment opportunities in regions like the Latrobe Valley as the industry and economy changes here.

So the first Earthworker Cooperative project is to set up a worker-owned factory in Morwell to manufacture high quality solar hot water technology, providing dignified livelihoods in the Latrobe Valley as Hazelwood closes in an industry with very relevant skills, boiler making—welding, manufacturing with a big overlap of skills in the power industry. Whilst also providing really important technology for bringing down carbon emissions and reducing the cost of living pressures on households across Victoria.

The innovative part of the Earthworker Cooperative is not just finding ways to support local manufacturing and providing jobs in regional areas but in the innovative distribution mechanisms that the business model incorporates to see an uptake of renewable energy technology for households across Victoria who otherwise might not be able to afford them. That's a key part of the model which I'll talk about in more detail later on.

Just a few quick points before I talk more about Earthworker is that as you know roughly five months ago in private boardrooms in Paris and Japan a decision was made to close Hazelwood. A decision that has huge repercussions for this region, but a decision that was made without any input from local community members. Another example of an incredibly disempowering and undemocratic—the state of our energy system as it is today and our economy more broadly arguably—system, one in which essential services are in the hands of not the people who depend on them but profit-oriented private boards.

To follow that point up I think it's worth highlighting again that the Latrobe Valley, whilst it's been the centre of energy generation in Victoria for nearly 100 years, the Valley itself remains one of the most

disadvantaged areas in the region. Which I think highlights the economically extractive nature of our energy production system, the fact that all the power is produced here but the people are poor and sick generally as opposed to other parts of the state.

So I think community energy offers real hope and a different route to this extractive model of electricity production that we've become accustomed to here in the Valley and elsewhere in the country. There has been plenty of analysis lately too about how many regional economies, not just in Australia, but in the US and the UK, are expressing a sense of disempowerment and disenfranchisement with politics as it is, lack of control over their own economic affairs, particularly in places where the manufacturing sector has been hollowed out.

So until we can find ways for communities to more meaningfully participate in their economies and shape their economies were going to see more, continue to see more haphazard and destructive decisions like the Hazelwood announcement recently. So having laid the foundation there, having said all that I think community energy is not just a response to the challenges that we're seeing now, I think it poses and presents and is already demonstrating real opportunities for communities to start taking power back, to start benefitting from the industries that exist within them and providing ways for communities to foster more civic engagement and participation which I think is really important for a healthy society.

I'm sure you've heard plenty about the economic benefits in the different hearings and submissions. I won't go into that a lot other than to say you know there is so many examples, the UK, the financial benefits flowing into communities are upwards of 200 times greater for community energy projects as opposed to typical absentee or corporate-owned energy projects.

I'm sure you've heard too the benefits potentially for grid stability through having a more decentralised energy system that can take up slack and respond quickly, to maintain energy security and stability. I won't talk about that either. I want to focus here on the social and community benefits of having more empowered communities that have more say and engagement in the economies in which they exist.

That's not just important for strong economies. As Søren Hermansen, who was mentioned before, who has helped the island of Samsø in Denmark transfer to 100 per cent renewable energy highlighted, the community participation and engagement is vital for embarking on any sort of social and economic change. Community buy-in is vital, communities feeling like they have not just a say in the process but also will benefit from and have a stake in the final outcome is really important.

We're headed for enormous changes and for those changes to progress well we need to make sure communities have a stake in the process. So Earthworker Cooperative seeks to make a contribution to the question of community energy through the manufacture of that community energy technology. I think it's all well and good, it's admirable and it's fantastic to see communities around Australia looking at setting up community energy projects.

We want to make sure that the technology that is used is manufactured locally. To make sure that the opportunities to bolster and strengthen the local economies, support local employment are maximised through community energy projects as well. So as I said the Earthworker Cooperative has been working for a long time to set up our first manufacturing enterprise here in Morwell. We have a factory site full of machinery ready to manufacture high quality solar hot water technology, which is a very exciting step.

Again as an example of the way that community energy projects can leverage and mobilise community investment, it was through members like Ian and others, every day community members investing in the Earthworker Cooperative that has allowed us to acquire the machinery and the IP to operate this factory, to make initially high quality stainless steel hot water storage tanks. But also I was on the phone this morning to a heat pump manufacturer looking at the feasibility of manufacturing heat pump technology here in Australia as well—all of which is currently imported.

And we're also in partnership with a number of other groups, including GridEdge, who do very

environmentally friendly and high quality sodium nickel battery storage technology. We've already manufactured with them a number of prototype products that use the battery, including offsite battery trailer: the solar panels, battery, anywhere you would use a diesel generator. That's already proving to be generating a lot of interest, especially in regional communities, farm communities, building sites, anywhere you need offsite power. We're also looking at manufacturing components for their household battery units.

So on the production side Earthworker Cooperative has not received government support to help us get to this point. It's been a community initiative—we raised over \$500,000 from investors lending money to the cooperative to acquire machinery and we're in the process of updating our business plan now to chart our way into production. We're not yet into production but we're hoping to be very soon.

The business plan I would like to talk quickly about, as I said, is the other innovative part of this project. In looking at ways to support a local manufacturing sector and provide dignified local employment, we've looked at a number of different ways of distributing locally made goods in a way that can supply steady demand for local manufacturing, but also provide access for vulnerable and a range of households to acquire and benefit from energy efficiency technology, like solar hot water systems.

Part of that is innovative collective market strategy that we've developed with trade unions to see the distribution of solar hot water systems and other technology through wage agreements with unions around Australia, many of which are interested. And we have a partnership with Bank Australia which can help provide finance for households to access that technology. Basically allowing employees to pay off a solar hot water system through their wage without any upfront costs. Which means suddenly renewable energy and energy efficiency technology is more accessible.

And leaving no one behind in the transition to cleaner energy is a key part of the Earthworker's ethos from the start. Again demonstrating that, we've run a number of really successful crowdfunding campaigns that have raised money to install solar hot water systems into public housing.

You can see that the Earthworker Cooperative is not your typical community energy project, but it harnesses the same necessities for community buy-in and participation around principles of inclusivity, clean energy and self-help to provide a range of energy efficiency and energy saving benefits to households and communities everywhere we hope.

There are—I'll put you in in a second because it would be great to get you to talk about it. I guess that's another point that I'd like to make too in—I think it's point 5 in the terms of reference, it refers to other types of technology suitable for community energy projects.

And I'm sure you've heard about great examples in the UK. There's tens and tens of community hydro projects. I think the Voice of the Valley proposal around synchronous generators and grid stability services using the transmission capacity in the Valley is really exciting. There is lots of interest locally in pumped hydro potentials in the mine sites in the Valley which again can provide baseload services.

There is plenty of options there. I would also like to think more broadly about different technologies suitable for community energy by drawing on the example of the Earthworker Cooperative to show that it's not just the transmission of electricity that can be community owned, but the manufacture of the technology, and the transmission or the distribution of household energy efficiency goods and renewable energy goods at the household level, that can really support the changes we need to make and support regional and metropolitan communities.

So I guess I'll talk about a few barriers and a few things that I think could help this project take the next step and develop capacity to affect a whole number of more communities across Australia. The first of those is we've come up a few times against the lack of awareness and education and support for the cooperative model enterprise. Again, I'm sure you've heard plenty about the value of cooperative enterprises in the economy.

This is being recognised more and more elsewhere in the world. The Mondragon Cooperative Network in the Basque region of Spain is one of the stunning examples of really resilient and long-term

community economic development which has supported one of the poorest regions in Spain become one of the most economically resilient, equal and prosperous through a network now of over 120 worker-owned cooperatives in a mutually supporting network: employing over 80,000 people in this region from high manufacturing to services to retail, a whole range of things.

The US, New York, has devoted recently \$1.2 million to a worker cooperative development fund, the Cleveland model that was mentioned is being taken up in other rust belt cities across the US. It's not just pie in the sky stuff. It has runs on the board and it's being developed elsewhere.

Yet in Australia and Victoria we have seen, come up against various bureaucracies that don't know what cooperatives are, don't know how they function, don't know how to interact with them. In general there is, as the Business Council of Cooperatives and Mutuals has highlighted, a general lack of education and awareness about cooperatives, particularly in the legal sector where it's really important that we have legal professionals who are able to assist and support and work with cooperative enterprises.

In some situations dealing with some organisations, like Regional Development Victoria, there has been some programs, support programs or grants that just have excluded cooperatives from applying which is a real problem. So barriers, administrative and legal and of education as well. The other barrier Earthworker has faced, though we've overcome it through really widespread community support across, has been the challenge of raising capital.

We've relied on community investment to this point. We haven't received any funding from government to provide capital for the project. The Mondragon Cooperative Network in Spain has been so resilient and successful in supporting such a large network of economy-sustaining worker cooperatives through setting up its own credit union, own bank. Whilst we have a good close partnership with Bank Australia there is still a need for the initial capital support to set up what can become a self-sustaining and mutually supporting network. But there is not many mechanisms currently to support capital for new community initiatives like cooperatives and I think that is really vital.

Finally, opportunities. We really welcome recent State Government announcements about programs for energy efficiency upgrades in households in Gippsland and across Victoria. I think this is very good policy. It's similar to policy we've been calling for, for quite a while. I guess we just really want to urge that there are mandatory local content requirements in those policies to really maximise the local benefits—in terms of employment and making sure that wealth is created and stays in regions where you try and have an impact.

At the moment I understand there are some requirements that energy efficiency programs are delivered by local providers, but there is not yet any requirements that products installed—for instance solar hot water systems, batteries, heat pumps, whatever they might be—are locally manufactured and I think really governments are shooting themselves in the foot. They're missing a great opportunity if they don't maximise the opportunities there to support local employment, whilst also supporting cost of living pressures for low income households.

We think there is a real role for clever government procurement which doesn't necessarily mean spending buckets more money. It just means making smart decisions to support local and regional economies and conceptualising community energy in broader ways than just installing large scale electricity generating technology, but also looking at supporting the manufacturer as well. That's it for now. I'm sure I've got plenty more to say which might come out in questions. But Ian Southall I'm sure has some great stuff to say too.

Mr SOUTHALL — Thank you Dan. Everyone, I would just like to comment just quickly about the energy efficiency program, the 1,000 homes pilot program. I think it's a great opportunity for us to demonstrate how inefficient our homes are in Australia. We all know that. But it's a really good micro project that could actually roll out right around the Latrobe Valley and Gippsland and could affect 40,000 houses.

Now if you could think about putting the economic modelling around that and the number of potential jobs that it could generate, it's a massive, massive boost. But it needs to be controlled and run by local organisations in the non-for-profit area, such as Earthworker and other organisations that have the interests of local communities at heart and are not just profit driven.

So I think we've all got to share in that and I think as elected representatives you should be looking at that modelling very importantly. And I congratulate the State Government on the social enterprise announcement just recently. I think that that's a step in the right direction to actually having those procurement projects available to us in the Latrobe Valley. So I commend that.

The other point that I'd like to mention about the Earthworker Cooperative is that there are a number of people that are working around the cooperative that have volunteered their time, that have the expertise to be able to help the cooperative. We have clever people that work in hydro, wind and battery storage technology that are committed to making this work.

I think if we can get a little bit of support to make sure that the business plan is followed through and we can turn the key you'll find like Latrobe Valley enterprises who have been operating sort of in this space in other products over a period of the last 27 years, that we could match their productivity. I think that's where Earthworker can really make a little bit of a difference in the area. Now we're not going to say that we're going to have jobs for 800 employees that come out of Hazelwood, but there are a number of good jobs that will be available.

If you look at an operator at one of the power stations, they earn upwards of \$180,000 to quarter of a million dollars a year. So we're not suggesting that someone gets paid that. But we still believe that those trade skills jobs are there and a classic example of it is we've got a gentleman who has put his money where his mouth is by buying some stainless steel manufacturing plant and sitting it alongside Earthworker to produce solar panel clips that don't have to drill into the roofs.

He's got a patent on them. They're Australian owned, they are an Australian made product. They are very clever. No one else in the world makes them and they can be well and truly made here out of the small Earthworker Cooperative building here in Morwell. So that gives you a little bit of an example. I just want to say just briefly that I'm also working in a community energy project in Mirboo North, which is only 30 kilometres from the Hazelwood Power Station.

Mr NARDELLA — I've actually been to Mirboo North.

Mr SOUTHALL — Beg your pardon Don?

Mr NARDELLA — I've actually been to Mirboo North.

Mr SOUTHALL — Well I encourage you to come again.

Mr NARDELLA — A few decades ago.

Mr SOUTHALL — If you come to Mirboo North and you have a look at how many solar panels have been put on the roofs of houses you'll be astounded. And that's because we have a company working out of Mirboo North called Gippsland Solar who has built their business around Mirboo North.

And I just take that as an example, but for last four or five years, four or five of the cooperative community organisations in Mirboo North which relies heavily on community activity, has been working on an energy project for the last four years. A generation project. Because we knew that Hazelwood was going to close and it was going to affect some of our people that in Mirboo North.

So we've been working closely with the Bendigo Bank, with the Mirboo North and District Community Foundation to actually deliver the project. We're in the pre-feasibility and feasibility stage now. We're very grateful for the State Government to supply \$50,000 for the feasibility study through the New Energy Jobs Fund. My role is to make sure that that feasibility study works.

Mr NARDELLA — Good.

Mr SOUTHALL — I just thought I'd make you aware of that. We have some exciting news to announce over the next two or three weeks and that's around a solar farm that will be built hopefully in the area. It's getting closer and closer and closer. We've got a number of private investors wanting to invest in it. Primarily because it's community owned we can drive a return on investment of around six to ten per cent. If you can tell the ANZ and the Commonwealth Bank that I think they'd be very interested in that sort of return.

The CHAIR — Thank you, Dan and Ian. I think it gives us a little bit of time to ask some questions.

Mr SOUTHALL — Yes.

The CHAIR — Ian, you spoke about job creation, can you please explain to us how many direct and non-direct jobs will the Morwell factory create and what opportunities are there for expansion to other towns?

Mr MUSIL — So the Earthworker Cooperative Project aims to establish a whole network of community and worker owned enterprises, learning from really successful examples like the Mondragon Networks in Spain, like cooperative networks that have thrived in Italy and so on. So this—the factory we're working to set up in Morwell is the first one. The machinery and the IP we have, was acquired from a previous business which can be used at capacity to employ around 50 people in the manufacturing process.

We'll be starting smaller than that depending on the pipeline of work we can generate in the short term. But the aim is to grow it as quickly as possible. Then rather than expand that factory, duplicate the process or bring in other parts of the manufacturing process.

The Earthworker mission is really to provide dignified livelihoods, deal with the need to reduce pollution and try and find ways to sustain and regrow our manufacturing sector. So we're looking at bringing back the manufacturing of technology that's currently imported, starting with solar hot water technology.

As I said we're talking with heat pump manufacturers about bringing some assembly and manufacture of components back here at the moment. So as we grow and we have a pretty clear business plan that we believe can help us grow, we want to take on manufacturing more components and set up duplicate factories in other regional areas that are in need of new jobs as well. Latrobe Valley is obviously a really important place at this time. We can see similar challenges being faced in places like the Hunter Valley, in potentially—I mean Geelong is a really important area as well and other places in Victoria.

Mr CRISP — Can we tie you down a little bit. By small and growing to 50, how many jobs in the short term and what is your period to growing to that 50?

Mr MUSIL — All right, so we currently have two staff at the moment. The factory manager is laying out the production line and starting to commission machinery to get production underway. To operate the plant at a bare minimum we expect we'll need about four to five workers—worker owners I should say. They'll be running and owning their own business which is an exciting part of the project.

As I said we've got some exciting strategies around long term demand for local manufactured goods through the collective market models that I've talked about. I mentioned unions, I haven't spoken about social housing. We've got partnerships with a number of social housing providers of which we've already provided some installations for and believe that there is strong growth there in working with, for instance, housing cooperatives who need to replace their units as well.

The other part of the equation as well and this is really central in the short term to help us to grow quickly, is around procurement. If we can ensure that there is some good pipeline of work in current government programs to upgrade public housing stock, we think growth could be quite quick.

So we would be looking the volumes of work required to get us up towards that 40 to 50 employees mark. We'd be looking to—we're still kind of just refining our costings at the moment. We've got some new information and some new capacities which we're bringing our figures up to date with. But yeah around, looking around sort of 800 units produced a month would see us closer to that level of workers, that workforce.

Mr CRISP — When you say a tank is that complete unit?

Mr MUSIL — So no, at the moment the factory, the production line, is set up to manufacture the storage tank, which is half of any solar hot water system. We have retail partnerships and arrangements with a large number of other solar hot water companies some of which use that tank as their tank, that we make it for them or will make it for them and they'll brand it as their own. We also have agreements therefore that we can retail the heating part of the system under our own badge as well.

So we'll be manufacturing just the tanks to start with, but selling entire solar hot water systems. The basis of those partnerships has been as I've mentioned an agreement to develop the feasibility to manufacture part of those systems here. The other thing I mentioned too was our partnership with GridEdge, which is seeing us there with manufactured prototypes for solar battery trailer and that will be fully made in Morwell. And again the partnership is based with a shared commitment to investigating feasibility of making the actual batteries themselves in Australia. Currently they're made in Switzerland.

Mr SOUTHALL — They're the Fiamm brand of batteries gentlemen. Fiamm have worked in battery storage technology for nigh on 100 years in Europe. If you look at capacity of storage and their operating temperatures and their recyclability they are a very, very good battery.

The CHAIR — Thank you.

Mr MUSIL — Can I just say one other thing just on the question of growing the project. So I've mentioned the Mondragon Cooperative Network, I've mentioned the lessons we've learned from them and the model we have to set up a mutually supporting ecosystem and large network of enterprises providing employment. Over the years Earthworker has also done significant amount of work looking at how to leverage socialised capital, like superannuation, into large scale manufacture of renewable energy technology. People might be aware that there was a number of world class wind generators manufactured down here in the Latrobe Valley a decade or so ago.

The skills and the capacity are here to do that and increasingly there is a willingness. I mean there was recent Age polling that showed 80 per cent to 86 per cent of Australians support a stronger manufacturing sector. We have done work and thinking into leveraging not just the community support but community capital—the money we all have sitting in our own superannuation funds now—to ensure that we can support manufacturing of larger scale renewable energy technology and other vital services. So we think there is, once we get off the ground and running in a fast way we see potential for much bigger growth and we see actually necessity for much bigger growth as well.

Mr SOUTHALL — Can I just quickly make a comment about that? I just, be aware that there are a lot of other regional centres pitching for renewable energy production. I know Ballarat is very keen on the idea of the wind production because of their, because of Waldara and the Western Plains area of Victoria. And I just say don't forget the skill base of the Latrobe Valley has been around energy and electricity for such a long time. It would be very remiss if we didn't use a fair percentage of that skill base here.

Mr MUSIL — One final comment and I'm sorry to butt in.

Mr CRISP — That's all right.

Mr MUSIL — Is just to really quickly say—

The CHAIR — Well we need to ask some question because we're running out of time, I'm sorry about

that.

Mr MUSIL — Okay, no worries.

Mr NARDELLA — I've got two things.

Mr MUSIL — Yeah.

Mr NARDELLA — You talked about pumped hydro in the Valley.

Mr MUSIL — Yeah.

Mr NARDELLA — What are you looking at? What are you talking about?

Mr MUSIL — Assuming that you're familiar with pumped hydro technology—

Mr NARDELLA — You put water up the top and it goes down and then when it's cheap you pump it back up again.

Mr MUSIL — Exactly, so it's a form of, it's a battery, it's a form of energy storage.

Mr NARDELLA — Correct.

Mr MUSIL — A mass battery.

Mr NARDELLA — Correct.

Mr MUSIL — So given that there is some significant differences in height between the tops of some of the mines in the open cut and the bottom, there is potential for using that head as a site for pumped hydro stations. We've spoken to—Ian and I have both spoken to some engineers locally who believe there is significant head and potential to do that in the Valley and it would make sense given that as we've heard all transmission lines lead to the Valley. Do you want to say anything more about that?

Mr SOUTHALL — Yeah, I just make a quick comment. We don't want to strand the assets, especially the distribution—the distribution network and the Morwell transmission station. We just don't want to do that. That's an imperative because there's a lot of infrastructure there that needs to be worked on. And there are some materials in the Hazelwood, especially around the generators and the turbines, that we should be reutilising and I just don't want to see some of that disappear or get scrapped.

The other thing we have, through the Gippsland Climate Change Network which I work closely with, we are working with one of the senior engineers at Engie about the pumped hydro, because he believes it can possibly work and he reckons it might even work better at Yallourn because of the amount of volume of water that's relatively close to the Yallourn Power Station and that's Lake Narracan and that process at the top of the Latrobe River.

Mr NARDELLA — The other thing that you talked about is that grants exclude cooperatives. Why is that?

Mr MUSIL — Yeah, I'm not sure we couldn't get a clear answer on that. I think lots of it stems just from the lack of exposure that government bodies might have had with cooperatives or lack of education on—

Mr NARDELLA — Cooperatives have been around for forever.

Mr MUSIL — They have, which is why it's extra confusing and frustrating, I agree.

Mr NARDELLA — So when you apply for a grant they say no, you can't have a grant.

Mr MUSIL — Some grants.

Mr NARDELLA — What do they say—

Mr MUSIL — They said cooperatives aren't eligible. You have to apply under the auspice of a publicly listed company or a company or you have to perform some sort of consortium. I tried to get answers and they weren't clear—

Mr NARDELLA — That was through RDV was it?

Mr MUSIL — That was through Regional Development Victoria. If you like I can take it on notice and find the exact program.

The CHAIR — All right, well Dan and Ian on behalf of the committee I would like to thank you for giving the evidence on your part, thank you very much.

Mr MUSIL — Thank you.

Mr SOUTHALL — Thank you.

Mr NARDELLA — We could have gone more.

Mr SOUTHALL — We don't mind, we can tell you more. We've got a lot more technical information if you want it.

Mr NARDELLA — Thanks anyway.