

# 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

Ms Wendy Farmer, President and

Mr Ron Ipsen, Vice President, Voices of the Valley.

**The CHAIR** — Good morning Wendy and Ron and let me read this to you first and then we'll start our hearing. Welcome to the public hearing for the Economic, Education, Jobs and Skills Committee's Inquiry into community energy projects. All evidence taken at this hearing is protected by parliamentary privilege. Any comments you make 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.

Before you start making your opening statement I would like to introduce the Committee Members, Don Nardella on my left side, I'm the Chair, Nazih Elasmr, Peter Crisp and Cesar Melhem. So please state your name before you start and then we have some questions for you.

**Ms FARMER** — Okay, so my name is Wendy Farmer. I'm the President of Voices in the Valley Committee Group in Latrobe Valley.

**Mr IPSEN** — My name is Ron Ipsen. I'm the Vice President and an engineer for Voices in the Valley.

**The CHAIR** — The floor is yours.

**Mr IPSEN** — If it's okay we'll just—because we've got like five or ten minutes, we'll just address the points in your terms of reference.

**The CHAIR** — Yes.

**Mr IPSEN** — The first question that you were given was to look at the potential role of cooperatives, mutual social enterprises and community ownership in the energy sector. We see the role as a catalyst for change. We see it as profit redistribution. It fills a need not met by the market in a lot—in quite a lot of ways. I don't have my diagrams in front of me but I need to explain that.

In a lot of ways it can provide employment and skills provision for marginalised groups. We tried to initiate that through our first program that we did, the transition program, which you've got in front of you is Jobs and Hope. We've put forward a macro plan for the valley for transition which included quite a lot of employment and that kind of job generation into the new energies. And we've changed our way of doing things from looking at that macro down to micro communities. We've met a lot of resistance in the larger community.

We're finding that it's a platform and test bed for innovation. Our community will—our community playing with energy and that sort of stuff will tend to explore it a bit more, new people will be involved, so you get a lot of innovation in that way. Whereas trial and error tends to be discouraged in private enterprise. We also find that community energy is very good for awareness raising within the community. There is a good dissemination of awareness goes through it because of the involvement of the people in the communities.

Next point I suppose is investigate the benefits of community-owned energy programs and you've probably been told these you know 1,000 times. From our perspective community-owned energy programs stabilise our area if we can get them up and running. By that I mean we don't have the big corporations owning the whole energy system and walking away when they want to, like we're seeing Hazelwood do, like we've seen in the past and like we'll see over the next ten or 15 years when the other generators will do the same thing.

So if it's community energy owned it's much more stable in that it's not locked into political cycles and it's owned by the community. We see it as increasing the uptake of new technologies. It does that by involving the people and getting them in there, getting a little bit of education into what it's all about and off they go. Democratisation also of the energy industry we believe—well my personal belief and those of a lot of the people that I talk to—privatisation was a big mistake, a very big mistake.

It's very difficult to get back what we had and we have to do that one little bit at a time. If that means one household at a time taking control of their energy resources or one community at a time then that's the way to do it. Very, very slowly, get it back. Others may disagree but that's just how we see it down here.

Increase in social capital—your community actually owns things. Similar to—as long as they're not sold off again. It actually increases your social capital, what your community actually owns, what they have to work with, what they can see as theirs which gives you inclusive kind of we to a community.

Social cohesion and community engagement, pretty much the same thing—the social capital talks about hardware and objects whereas the social cohesion and community engagement is the social aspect of that. Wealth redistribution—we can do wealth redistribution through community energy. Putting up things like community solar gardens allows us to provide new energy access for the renters, for those that have inappropriate roofs.

It also—under the new way that we're looking at things—allows clubs an access to social groups, micro communities to engage in it. If you've got one large community solar garden then they can all get—all those clubs that participate or put into it—can get money back or discounts on their bills, on their electricity bills through that. They can all share in that system. So community solar, particularly community solar gardens, the model that tends to be used for that, is a good way of wealth redistribution.

Provision of informal and formal education platforms—your community energy systems, similar to say Hepburn Wind, you'll find that your techies come along there and have a bit of a look. So if you're teaching those kinds of skills up there you can use them. We looked at it down here for the provision of the TAFE so that they could have hands-on skills in whatever we built and that's the way we looked at our community energy, as being a part of the education system, part of the new technology education system. It was the place for hands on.

We had a think about one of your tasks, which was investigate the way to encourage the uptake of community energy projects. We had—you guys are in a bit of a spot there. So we just ran through the ones that have helped us and what we thought might be helpful.

Last week a lot of us attended the energy congress, the Community Energy Congress in Melbourne. Government support of that is essential. So as a state government I'll give you a big tick for that one. That allows people to get together, allows the exchange of information that otherwise just is too difficult.

It provides encouragement. Very often your community groups are working on their own in isolation. When you can put them together with other community groups then they encourage each other. So that was a wonderful thing that did happen at that conference.

Provision of accessible models and support—there is a possibility of producing products that can be just lobbed into a community. There are two problems when you're putting up a community energy project. One is the administration of it all and one is the technology. If you introduce the technology as a package then the community only has to deal with its own administration and getting itself up.

If that's a small enough cookie cutter kind of project then they would move on from there once they gathered the skills to broader projects. The one that we looked at for example would be charging stations. You could build small—I don't know is there pictures in this one of the charging stations?

**Ms FARMER** — I don't know.

**Mr IPSEN** — Just a small domed, domed area of solar panels, a battery thing and it can charge an electric car. Any that's not used goes back into the community or for community use. Back into the funding—

**Ms FARMER** — It's a bit like driving into a service station. So you know a dome type service station, pull in, charge your car, drive off again.

**Mr IPSEN** — So that's a cookie cutter product that could be produced. We looked at producing them here as a product and pushing them out throughout the system.

**Mr NARDELLA** — Have you had a talk to Tesla?

**Ms FARMER** — We have. We've actually—Tesla have been very good to the community and offered us four charging stations. They would pay for the charging station including \$3,000 for both areas to put them. So we thought two and two. Our local council have just knocked them back.

**Mr NARDELLA** — That's good. That's good of them.

**Ms FARMER** — Yes—

**Mr NARDELLA** — So they're transitioning into the new economy are they?

**Ms FARMER** — They—yes, that's correct.

**Mr IPSEN** — You noticed.

**Mr NARDELLA** — That might be one for them when they come back.

**Ms FARMER** — Did you notice their logo, the new economy?

**Mr IPSEN** — And new energy.

**Ms FARMER** — Yes, so they actually said that there wasn't enough cars for them—

**Mr IPSEN** — Which is true.

**Ms FARMER** —and it wouldn't encourage enough people. Yet they're trying to bring in tourism. So—

**Mr NARDELLA** — Yes, I remember the days when LP gas—there were only so many LP gas fillings station.

**Ms FARMER** — Yes.

**Mr IPSEN** — Yes.

**Mr NARDELLA** — But you have to start somewhere.

**Mr IPSEN** — Yes.

**Ms FARMER** — And the internet is the same, you only had a few spots in it, yes.

**Mr NARDELLA** — Correct.

**Ms FARMER** — So we thought we'd be very early adopters, because being an hour and a half from the city we thought we were in the perfect position, we're taking that initiative to get it going. That was last week they let us know. That may change because we will go back to them and I want to see their report on why they—

**Mr NARDELLA** — You'll convince them otherwise.

**Ms FARMER** — We would like to think we will convince them.

**Mr IPSEN** — We'll have a word to them. We'll have a word to them, yes. So that was an accessible model or a cookie cutter model where you could drop a product in and get your social infrastructure

built. Because I think that's really one of your stumbling blocks—one of the stumbling blocks for community energy.

Assistance sponsorship—rolling grants instead of rounds. We have a lot of trouble with being prepared for a grant at a certain time. I know that it's the easiest way to administer a grant system is to do it that way. But if we could have a rolling grant so that we could apply, you'd say that these grants will be open until such and such a time. That we could apply in the interim periods. Because very often we're not ready or things change. So rolling grants.

Getting everyone at the table, assistance, sponsorship and initial community meetings. One of our big problems here in the Latrobe Valley has been getting everybody at the table. For a long time we weren't allowed to talk about transition. We weren't allowed to talk about renewable energies and that was cultural and it was imbedded quite deeply in all of the business and all of the shires.

It wasn't until the 40 million round that—well the shire is a pretty good example. The shire actually came to us within three quarters of an hour we were sitting in their office and they were asking us what is transition and how do we do it? What we said was we need everybody around the table to talk about this, that's the international experience, right. You won't like each other but everybody that's got a stake in it has to be there and work it out from there. We're still waiting.

**Ms FARMER** — That was 12 months ago, that's was February last year.

**Mr IPSEN** — We're still waiting and we have asked the LVA—

**Mr NARDELLA** — Why don't you—

**Mr IPSEN** — We have asked Harriet.

**Mr NARDELLA** — Why don't you do that?

**Mr IPSEN** — Well we got our name a bit muddied by taking on Hazelwood during the mine fire.

**Ms FARMER** — Yes, because we took the mine fire and we caused a lot of stir up. We're probably not in the best position. We have gone around and done some community consultations. A couple have been successful, one was a flop. But we sort of thought so if council called it, they're a neutral platform to call it. So one thing you get in regional areas is that group doesn't like that group and that group doesn't like that group.

**Mr NARDELLA** — Especially in the Valley.

**Ms FARMER** — Especially in the Valley, thank you.

**Mr IPSEN** — And we have a very strong—we have a very strong coal lobby.

**Ms FARMER** — But we need to bring—and that's what we're saying—everybody needs to come around to the table. So that's why we thought if council could call it, it was that neutral group.

**Mr IPSEN** — So that's what we've asked for and we have asked State Government and we have asked the LVA and we have asked local government all for the same thing. The closest we got was when Søren came down—Søren Hermansen, the—

**Ms FARMER** — Denmark.

**Mr IPSEN** — Yes, Danish guy. That was two weeks ago.

**Ms FARMER** — Two weeks ago.

**Mr IPSEN** — That was pretty close but it wasn't quite there. There was a lot of people missing from the table. So yes that's how the government could help there. Education and training programs both for

the groups trying to set it up and general public as to what the advantages are. One of the things in Denmark was they mandated a percentage of local community ownership on all new projects. Now I don't know whether you understand what they did there or why they did it. They got the same thing when they first started to put forward the wind turbines as we get, you know they look ugly yada yada yada. You'll get headaches, all that sort of stuff.

**Mr NARDELLA** — They're not as beautiful as the generators.

**Ms FARMER** — Oh as the coal—absolutely.

**Mr IPSEN** — Well yes, I have put in written objections that I don't want wind turbines because they'll bugger up my view of the power station, thank you very much. But what the Denmark community decided was that although the farmers, who were putting up some of the wind turbines. Every second one was community owned by the way. Although the farmers were putting up the wind turbines, they owned the land, they owned the turbine, they didn't own the view and that belonged to the community.

So to get the community on board what they did was that they mandated that 15 or 20 per cent of each turbine should be community owned and they should be offered ownership of it and that changed—that was a game changer and I think it could quite possibly be a game changer here in that the people who are actually going to be looking at it, living under it are actually making money from it, right, it then becomes ours rather than their wind turbine. So that's from the Danish model one of the things we picked up.

We have a lot of community energy projects looking at building retailers. They're going to spend a lot of energy and a lot of time doing that. Whether they'll be successful or not I don't know. Maybe one or two will get through. There are a lot of hoops to go through. We did consider a state owned energy retailer to facilitate that and I know it goes dead against the small government thing and all that sort of stuff.

But it certainly would be easier if these corporations, these communities could turn to a neutral body to purchase their product. Yes, I know it will happen and the possibility of it happening through the RET is quite good. Community feed in tariff. We have been asked and people have talked about having a higher tariff for community feed in. While we got you blokes here, thank you very much for lifting the across the board tariff. Hey?

**Mr MELHEM** — That was the ESC.

**Mr IPSEN** — Well you're not federal's are you?

**Mr MELHEM** — That's adequate, the 11.3 cents?

**Mr IPSEN** — It will never be enough but it's twice what it was.

**Mr MELHEM** — That's right and twice the cost of—

**Mr IPSEN** — So a solar panel now becomes twice as viable as it was.

**Mr MELHEM** — Right.

**Mr IPSEN** — Pays itself off in half as much time. Even though it was viable before it's twice as viable now. You're going to get people say it could be better yada yada yada. I would like to see community energy given a larger tariff if possible. State government could provide with assistance of provision of land, whether that means brokering with local government or whatever right? Some of the state land that they do own. I know that's a can of worms but it just says encourage the uptake of community energy providers so I'm throwing it in.

Starter project and that's similar to the accessible models where you provide something that's cookie cutter, that's easy to do and most of your work is done in building your community up. Building your

community capacity to be able to do that. Training hubs. There is a lot of talk about training hubs at the moment where community energy projects are fostered.

And linking micro communities and by that we're looking at the club energy project that we're developing at the moment which are linking together all the little clubs that have energy bills and that's a big expense for a club, say a motorcycle club or a pony club or a dog club or the archery club. Linking them up together to put together one community project, one community energy project which benefits them all. So linking them up and encouraging that would be a good use of state resources in my opinion.

Investigate the ability to expand community energy products outside of solar and wind power—Okay, community energy projects. We've looked here pretty seriously at grid-wide problems, because we have traditionally been a grid-wide provider. We looked at what we have here in the Latrobe Valley and what are our assets. The one that immediately comes to mind is the power lines. All power lines, all transmission lines go through the Valley. They come back to the Valley. Even the one from Tasmania comes through here.

We have really, really good infrastructure in that way so what we looked at or what products could be done there for stabilising and conditioning a grid. There is a lot of fluctuation in renewables. So how can you stabilise that? Synchronous condensers. People talk about the mass within the electrical system that the generators have a mass and that's true, it does stabilise it. They talk about it's a spinning mass, they talk about spinning reserve and basically it's a big flywheel and you can do that without having a turbine and steam connected to it.

If you just—a generator is an electric motor that's running backwards, that's all it is. Okay so if you cut off the turbine, the drive to it and just let it spin, its own flywheel mass adds stability. It also adds a little bit of storage. So what we looked at with stabilising and conditioning was utilising or repurposing some of the components from the old power stations as they shut them down. For example you could use the generators from Hazelwood and just let them free spin and that would provide stabilisation.

We looked at the Latrobe Valley as being—we looked at it as changing its purpose from generation of electricity to the enablement of the renewables. And to enable the renewables across grid-wide it will need stabilisation and it will need storage. So we looked at how we could do those kind of products. Storage also is another one. Geothermal. One of the things coal does, if you don't burn it, is it's a really good insulator. Underneath the coal bed is a really good geothermal. It acts as a blanket. So yes one of the purposes of coal could be just as an insulator. We do have geothermal very close to the surface. Here there is a lot of money needed to investigate that and tap into that research further.

We can't make a move on it from a community energy point of view because there is not enough data on it. Yes, so more research is needed in that. And energy products. You'll hear from Ian and them—and the boys that are producing different energy products. So they are a project outside of solar and wind power and they are community owned. So the encouragement of manufacturing in these products is a laudable thing.

The best practice models for the Australian and international jurisdictions, well we keep going back to Cleveland where—the Cleveland model where it utilised two main community products. One was the generation of electricity, community generation of electricity. The other was the generation of food, community generation of food.

So Cleveland was very much a big part of the American rust belt and it's reinvented itself that way and the model has been utilised across the world. Denmark of course and of course the world star, Germany, for the use of community ownership pushing forward the technology.

Number 6 and Number 7 both refer to metropolitan areas. I would like to make a statement that we have unique challenges and advantages too, in this particular area. We have a culture of coal and it's fairly embedded. We also have a very heavy coal lobby presence you might say and it's only in the last—

**Ms FARMER** — Eighteen months.

**Mr IPSEN** — Yes, that we've been allowed to talk about renewables at all. Prior to that it was taboo and any talk about it was considered to be anti-jobs, anti-power station, anti-Latrobe Valley.

**Mr NARDELLA** — So you've had Gina out here on the back of a ute have you?

**Mr IPSEN** — I haven't had Gina at all. Do you think I should?

**Mr NARDELLA** — There you go.

**Ms FARMER** — We've just had her friends.

**Mr IPSEN** — We've had a lot of her representatives and we've had them come here pretending to be community focused, community orientated and we've been very disappointed. We've found them very divisive. When we looked into it we found that the same people had been divisive in other states and held up progress there.

These were very—well John Hewson to be honest—very divisive in the community. Yes, didn't help at all. We went along expecting to learn about—he's a finance guru isn't he? Right, so we thought we would learn from that. What we got was snake oil and some of the community bought it and it's been very divisive ever since. So yes our challenges relate to our culture, our ability to take things up here and our ability to overlook coal and move forward.

**The CHAIR** — Thank you Ron, that was excellent. You covered every term of reference. Allow us to ask some questions. Whether you or Wendy, I'm happy for both of you to answer the questions. Where did the inspiration for your transition project come from and what stage is the project at?

**Ms FARMER** — Well I guess the inspiration came from the Hazelwood Mine fire inquiry actually. One of the things we noticed through that inquiry is the need for hope in the community and jobs. So we noticed you know, everybody knows that the Latrobe Valley has this big history of ill health and you know social disadvantage. And the inquiry really showed us that we needed more, we needed to take the community on a journey to what could change rather than just be stuck in this coal, because we could also see that coal was going to change.

We're still in the very early stages of the project where as you can see we've put a brochure together. We have done the VicHealth challenge that gave us a little bit of funding to work on that and that's also the challenges with community projects that the cost of running community projects and the things that you do out of your own pocket and the hours are never paid for and couldn't be paid for because you know it's long hours for community. So often communities will burn out in that.

We've had a few different companies come to us, funds and banks wanting to know how they can support community energy in the Latrobe Valley and that was the idea of putting a brochure together. This is still a working document. It's not completely 100 per cent finalised. Ron might want to add onto that.

**Mr IPSEN** — The—in the second inquiry as Wendy said, the second inquiry had a large section on the health of the community, of the Latrobe Valley. And it was really good that they addressed the historical deficit, something which also was not allowed to be talked about.

What came out of that review, listening to all of the people, all of the different health professionals, was that the elephant in the room when it came to the health and well-being of the people of the Latrobe Valley was jobs and hope. So we set about doing that, trying to find a way forward on that. We looked at new energy and how it could be done. It was obvious that it was coming and we looked at projects that we could build that would jumpstart that here.

I went through a similar experience with the internet, bringing the internet in, in the 90s and it's very similar with the new energy projects in the way that they do it. So we got no traction and nobody listened to us and we just worked away on it on our own for—in isolation until the 40 million was announced. The shire wouldn't talk to us, nobody would talk to us.

Now they sort of, well we went to a meeting the other, a public meeting the other day and they went on for two hours, three hours with senators and you know ministers and all the shire and everybody and they still didn't have a plan. They still didn't have anything to move forward. So no vision for beyond Hazelwood. For us what we're hoping is that Hazelwood isn't the death knell for the Valley. What we're hoping is that it's a wake-up call, all right.

**Ms FARMER** — It creates the opportunity to move forward.

**The CHAIR** — Okay.

**Mr CRISP** — The VicHealth Community Challenge, how's that assisted with your transition project?

**Ms FARMER** — Well it's actually, so it was \$20,000 to work towards the project which has given us abilities to go to different conferences, to travel to different areas and look at projects. To pay some advisers to help us with our brochure to put something together. So it's just been a useful—as well as being a useful eight weeks we've been able to employ other people to help us along the way to work on what we believe the Valley needs.

**Mr IPSEN** — It's been great actually. We've still got more than two-thirds of it left.

**Ms FARMER** — We spend wisely.

**Mr IPSEN** — We're not big on spending money. I think it was extremely helpful as a model, that VicHealth model and the community challenge itself to bring community groups together and encourage them to work on plans for their community. It was really, really good. It was a good experience. It was very hard. Made us look at our projects in a different way. Made us do business plans for them. Made us nut through the workings of it. How it would work, how to present it, those kind of things. All of which were really great tools. Yes, we would like to see that reproduced in other places.

**Mr MELHEM** — Thank you, either of you can answer the question and again I just want to thank you for the comprehensive reports and the dot points in the presentation is excellent, you've answered all the questions more or less so making life easy for us. But what I want to ask you specifically and I know you've got a seven point annual report. Where you see the State Government assisting you to actually make sure your project actually succeeded and in practical terms what sort of things you would like to—you haven't covered already—

**Mr IPSEN** — Well if we had a wish list—

**Mr MELHEM** —you would like the state governments to do to encourage you to make sure your project is successful and other community energy projects. And I know you touched on that but I wouldn't mind a bit of expansion on that.

**Mr IPSEN** — Yes, for us if you look at that one there are two ways we can push that one forward, the macro one. It's based around community manufacturing as one point in it. So—

**Mr MELHEM** — So when you're talking about community manufacturing you're talking about producing solar panels for example?

**Mr IPSEN** — Solar panels, solar panels.

**Mr MELHEM** — Here?

**Mr IPSEN** — A solar plant here yes, yes.

**Mr MELHEM** — Right.

**Mr IPSEN** — What we based it on was building a solar plant here.

**Mr MELHEM** — Right.

**Mr IPSEN** — Using that and battery technology from a private company which I'll tell you about and putting them together and selling them as a package. Training the people how to do it and that's where it linked in with the TAFE. And working from there putting each customer together to build a virtual power station. So you have a community owned virtual power station democratically run. That's what we looked at and that's what that macro project is. Did you want to say any more on that one Wendy?

**Ms FARMER** — I was just—so 18 months ago probably was the first time we actually put anything on the state's table to say what we were actually working on and some of it has been picked up in theory as in the transition centre. But it was—it has been put on as imposed rather than community involvement in it. And so for state government we believe that they have to include community involvement in all of those—the decision making like this.

For the state now I guess we need help further to progress what we're working on, whether it's finances, whether it's support to get land, whether it's support to have the right people to work with. We believe for the state it is also a really big opportunity to prove that things can change and to change in a coal community. And we probably won't see so much of that support on the local ground as in the state would have to be involved in that.

**Mr MELHEM** — Just following from that, where would you see the, let's say the solar panels can be installed in the areas that, have you got a particular location?

**Mr IPSEN** — What we looked at was the production of solar panels to have a go at the RET, at the renewable energy target. We looked at and we particularly targeted the renewable energy target. We figured we could do ten per cent. What we looked at was replacing one Hazelwood unit with a virtual power station. To do that we needed 50,000 homes, which was 750,000 solar panels.

Now the investment to build the plant was around \$10 million. If you have a look at that, we had private people that looked at it and could possibly go with it. It depends on what value you place on Australian manufacturing, because you're always going to be able to get a better product, cheaper from China or Germany or some shonky dealer. So we looked at what we called transition panels in that they were produced by coal workers who were transitioning to new energy and spin it that way. That's what we looked at.

**Ms FARMER** — And we saw that the dairy industry where, with the milk issues, you know when it was made quite clear to the communities that these farmers were missing out. The people were prepared to go and pay the extra for their milk and things like that. So we think that by having Australian panels manufactured in a coal community would be a great way of attracting, selling the transition, because we're not going to be the first community to go through this, you know what we're going through at the moment. There is going to be a lot more and we could be the example of how things could change.

**Mr IPSEN** — I figure we're going to spend a lot more than 10 million just cleaning up this mess, without—

**Mr MELHEM** — Just one last question from me and Ron in particular with your background as an engineer, baseload power, that's very important obviously.

**Mr IPSEN** — Yes.

**Mr MELHEM** — To make sure we maintain strong manufacturing, the Alcoa case in point.

**Mr IPSEN** — Mmm.

**Mr MELHEM** — Do you see a role for coal in the interim until we get to 100 per cent renewable? Do you see gas as another option? How do you see the sort of balance between going to renewable and maintaining a decent baseload of power as well? So have you got any thoughts on that?

**Mr IPSEN** — Transition is not—is a period that we will go through for the next 20 years, some will say ten, some will say 30. But we will go through this period and it will be a hybrid energy system. It

won't be just coal and it won't be just renewables. It will have both in it and that's been the experience overseas. Denmark still has coal powered fire stations. They don't necessarily run them up very often but they do have them. We will be the same here.

I think we would have been on a different path had we not got rid of the SEC. I think they would have followed it through slowly and we would have seen a gradual change. But we did the privatisation thing and having sold the farm we have to work with that. Yes, there is coal. Yes, it is a really good resource that we have. Yes, it makes for an unhealthy community. Climate change most likely. Do we have to get rid of it? Well whether we're actually getting rid of coal is a pretty moot point. The power stations are dying anyway. Their economy is dying. It's getting cheaper and cheaper to do renewables.

What we have to look at is what functions do they serve and how can we reproduce that. Like they serve to, the mass of these things keeps the grid stable. The size of them and their generating capacity gives us baseload. We can reproduce that with storage and we can reproduce that with synchronous condensers and little electronic tricks all the way through it. It's absolutely not impossible to do. But it's not an either or. It's not renewables or coal in any manner, it's a mix and a gradual mix as we move forward.

**Mr NARDELLA** — I had a look at your report. Have you had a chat to either Tindo or GridEdge?

**Mr IPSEN** — Yes.

**Mr NARDELLA** — You have?

**Mr IPSEN** — Yes, to both.

**Ms FARMER** — Both yes.

**Mr NARDELLA** — Any possibility that they might want to—well certainly Tindo in terms of - - -

**Mr IPSEN** — Yes, the big boys can tell you more about GridEdge.

**Mr NARDELLA** — Yes.

**Mr IPSEN** — And Tindo we're waiting on word.

**Mr NARDELLA** — Yes.

**Ms FARMER** — Yes and Tindo we're also—if there was a certain amount of you know guarantee of panels they could you know do that, shift over here.

**Mr IPSEN** — They could shift over. They were looking to upgrade their facilities anyway, upgrade their production line.

**Mr NARDELLA** — Yes.

**Mr IPSEN** — So yes, they did look at that, yes.

**Mr NARDELLA** — Because that's one of the—in terms of manufacturing in Australia apart from the—

**Mr IPSEN** — Yes, they're the only ones, yes.

**Mr NARDELLA** — That's right. It's very lonely out there. But if they were looking at expanding anywhere in Australia - I mean it might be because of the 11.6 kilowatt hour increase in the feed in tariffs, there might be some other changes elsewhere, other states or whatever. There may not be, I don't know, it's up to them. But I reckon that there will be some other opportunities for them here in Victoria and they really need to get on the ground floor on that. But the problem will be the capital expense.

**Mr IPSEN** — Yes.

**Mr NARDELLA** — But you have got the transition authority here at the moment.

**Mr IPSEN** — Yes, we do.

**Ms FARMER** — Yes.

**Mr NARDELLA** — So there might be some, there should be I think some discussions with them in terms of transitioning the economy into the new economy really.

**Mr IPSEN** — We're, yes.

**Mr NARDELLA** — Having worked in the, you know, on the internet many, on the web many, many years ago.

**Ms FARMER** — We have spoken to the LVA but they're really after someone with a completed business plan at the moment to come in and—so they can just go here is the money and off you go type thing.

**Mr IPSEN** — LVA are in a tricky spot. I mean they got put on the spot, everybody got seconded and dumped in an office in the worst place possible. And then they sort of like had to apply for their own jobs again. And we've only just got the permanent staff. They've only just got on board. All the temporaries were put there with a huge amount of work to do. They've copped a lot of flak. They've actually done a good job really. Yes, quite impressive but it doesn't look so good.

**Mr NARDELLA** — Certainly in terms of these types of organisations and companies this is long-term stuff. If you're going to put together a business case and financing—

**Ms FARMER** — Absolutely.

**Mr NARDELLA** —it's not going to be done overnight.

**Ms FARMER** — No.

**Mr IPSEN** — No, no.

**Mr NARDELLA** — Certainly in terms of for instance manufacturing solar panels, there is a process.

**Ms FARMER** — It's a long term, yes.

**Mr NARDELLA** — Like a lot of these things you don't just pull that equipment off the shelf. It's not like going to buy a car, you just—

**Mr IPSEN** — Well actually the equipment is.

**Mr NARDELLA** — Is it?

**Mr IPSEN** — It's modular, yes. It's modular.

**Mr NARDELLA** — Yes.

**Mr IPSEN** — And you purchase it for which pieces you want and you purchase it for how many staff and how many shifts and how many megawatt hours you want to make a year.

**Mr NARDELLA** — Right.

**Mr IPSEN** — Yes, I was quite surprised when I saw it.

**Mr NARDELLA** — I didn't know that.

**Mr IPSEN** — I thought it would be handmade too, but it's not, it's a product.

**Mr NARDELLA** — Right, okay, right.

**Ms FARMER** — I think though on that, bringing Tindo or other companies down, we're talking community energy.

**Mr NARDELLA** — Yes.

**Ms FARMER** — And bringing companies down makes companies in charge of what happens in the community. Where if you've got community energy and you've got community ownership you've got that social impact. You've got money going back into communities, you know going back to sporting clubs or whoever is involved and we're not in, we're not begging corporations to actually control our future. Where our community energy controls their own future.

**Mr IPSEN** — And co-ops.

**Mr NARDELLA** — That's correct, but if you have a look at the Bendigo Bank model where you do have that community component.

**Mr IPSEN** — Yes.

**Mr NARDELLA** — It's quite critical to their business model, the business case.

**Ms FARMER** — Yes.

**Mr NARDELLA** — That's what I'm talking about, that partnership model rather than them coming in and—

**Ms FARMER** — Absolutely, thank you, yes.

**Mr NARDELLA** —taking over.

**Ms FARMER** — Yes, yes.

**Mr IPSEN** — Yes.

**Ms FARMER** — So a percentage of what they do is community, yes, I agree in that sense.

**Mr NARDELLA** — And they'd have a lot of that expertise. I mean that's part of the discussion that you've had with us.

**Mr IPSEN** — Yes.

**Mr NARDELLA** — Is that you would really like some other people that have that expertise to give us—I think you called it something, the cookie cutter.

**Mr IPSEN** — Yes.

**Ms FARMER** — The cookie cutter, yes.

**Mr NARDELLA** — You know so that then you could actually do the other work, the community work, rather than doing all the grunt work of putting together you know the ASIC registration and all that stuff that, yes, anyway.

**Mr IPSEN** — Yes.

**The CHAIR** — Well we have no more questions and I would like to thank you on behalf of the Committee for your time and your evidence, thank you very much.

**Mr IPSEN** — Thank you very much.

**Ms FARMER** — Thank you.