C O R R E C T E D V E R S I O N

ECONOMIC, EDUCATION, JOBS AND SKILLS COMMITTEE

Inquiry into community energy projects

Shepparton — 31 May 2017

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Witnesses

Professor Kate Auty, Member,
Ms Shirley Saywell, Member,
Ms Fiona Townsend, Member, Euroa Environment Group, and
Mr Jeff Wilmot, Member, Sustainable Seymour.

The CHAIR — 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 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. I invite you to make your contribution, but please state your name before you start and allow us some time for questions. Welcome.

Visual presentation.

Prof. AUTY — Thank you very much, Chair. The first thing I would like to say is an acknowledgement of country. We know we are on Yorta Yorta country and we also know that we are on a place where Aboriginal people camped over many years, and we would like to acknowledge them.

My name is Kate Auty. I am here as a representative of the Euroa Environment Group. I note that my tag does refer to my full-time employment in the ACT. I have taken leave from that job today to be here, so I am not representing the ACT as the Commissioner.

Just let me introduce the members along here, because we have four and it is probably useful for you to know who is here. We have Fiona Townsend, who is an agricultural scientist and educator, and she has also taken some leave from her full-time work to be here today, coming over from Euroa Secondary College. We have Jeff Wilmot, who is next to me. He is an engineer and he has come up from the Seymour area. He is part of our alliance about energy. We have Shirley Saywell, who is here as a representative of the Euroa Environment Group, having effectively been the president for many years, but who is also the manager of a large logistics firm in Euroa. That is the general expertise of the group.

I have been asked to just open the conversation, and that is what I will do. I do not want to take the whole time to talk about the submission. We are of course assuming that you have read it, and the submission takes you to a number of matters that we think are important about leadership, about innovation and about the ways in which alliances might work better. We really want to talk about our alliance, which of course is the Euroa alliance with Seymour and it is the Strathbogie-Seymour Energy Alliance, and we want to talk about our pumped hydro energy storage proposal today.

The story for us started a little while ago in 2015 when we convened a number of meetings in Euroa. We did it without any support from anybody and without any council support, and it was done essentially as a complete volunteer exercise. We held about 10 meetings over the year 2015 to talk about climate change, superannuation, biodiversity, water—and you can see it on the Strathbogie Voices website if you want to go to it. Out of one of those meetings came the call for us to consider renewable energy in our region. We were fortunate at the time to have people in that meeting from Seymour, from Strathbogie, from Euroa and from further afield.

We set up what we called laughingly the Committee of 40. The Committee of 40 was the show of hands from the floor that day of people who were interested in exploring community energy and thinking about how we might do something about that in our region. The upshot of all of that was that we came together for further meetings and discussions and we started to think about what might be the community energy opportunities in our region. That led to Fiona Townsend, who is going to talk about the question of hydro energy and pumped hydro, and Jeff, who is here from Seymour to talk about the same thing, coming together to think about what that might mean.

Essentially for us this is an alliance. It is an alliance not just with community groups but also with Goulburn Valley Water, which has shown extraordinary interest in what we have been talking, and also AusNet, which wanted to talk to us about the potential to explore other ways of producing energy in our region rather than simply being consumers. We did not invite AusNet to come and speak to us; they volunteered. They volunteered because Euroa in particular is an interesting part of the grid. We are on the edge of the grid, and for many years we have been understood to be a basket case because of that. If you were on the edge of the grid previously, before we have been engaged in this sort of transition discussion

about energy generally, you would be expecting to receive energy from the grid rather than do anything else.

We spoke to one retired councillor about whether that particular facet of our energy interest was going to be a prohibitor or an enabler, and it has always been understood to be a prohibitor. AusNet wanted to talk to us because it is an enabler. We are on the edge of the grid, and you have heard from the previous speaker about some of what we have done to make sure that we have an energy supply because of that. It has involved diesel generators for the very warm days, and they operate out of the showgrounds.

If we think about what we might do by way of producing energy rather than being a consumer of energy, as AusNet has put it to us, we could find ourselves thinking about the way we are making energy, not just consuming it. We have a video. This has been put together by the community. It has been done as a voluntary exercise, and it shows you the range of other associates we have been involved it. You will see in this video Roger Dargaville from the Melbourne Energy Institute talking about our project, and you will also see Nathan Epp from Goulburn Valley Water talking about why they find this interesting. Then we will ask the speakers here at the table to talk to why they think this is a particular way to go for our community.

We have prefeasibility money at this stage, and that is all it is. We are having a prefeasibility study done about community energy, pumped hydro-energy storage in both the Seymour area and Strathbogie, and we will come back to that. After we have heard from Fiona Townsend we will hear from Jeff Wilmot. Could I ask you in speaking to Mr Wilmot or speaking generally to keep your voices up. He has a hearing impairment, and he has asked me to make sure that you do in fact make sure he can hear.

Mr WILMOT — Commonly known as deaf.

The CHAIR — No problem.

Prof. AUTY —We will now play the video. The video has been shortened to 2 minutes, so it is not going to take up a lot of your time. No, it is not going to do it. What we will undertake to do is provide you with a copy of that video. It shows Dr Roger Dargaville talking about what the Melbourne Energy Institute has been doing with us. That work has been funded by the amount of money that we have had for the prefeasibility study. It also shows Nathan Epp from the Goulburn Valley Water group talking about why they find this an interesting project. They of course are the owners of the water that we are talking about.

What we will do is throw to Fiona Townsend, who would talk to you about why or how this came about, why we thought this was an interesting project and how it became a developed project in the Committee of 40's remit. Then we will throw to Jeff, who will talk about what is happening in Seymour.

Ms TOWNSEND — In about 2007—a little bit of backstory—Euroa ran out of water. Their local water storage went dry and the town actually ran out of water. We got supplied with bottled water. I drive down the hill every day to go to work from Strathbogie to Euroa and look across this water, and I have noticed that since that time it has never gone dry. There is water being pumped around, moved around, on the Strathbogies from the reservoirs across to Goulburn Valley Water's main water storage, which is out on the flat country. It is quite a shallow water storage and a very wide water storage. So I was interested in why that has been kept full, particularly across this last summer, which was quite a dry summer for us.

I rang Goulburn Valley Water, just as a punter, asking the question, 'Does water get pumped across there?', and they said yes. When this discussion came up with the committee I took it to them that because water is being moved around in the Strathbogies to supplement the water supply or maintain the water supply for Euroa township and now Violet Town township as well, maybe we could look at doing something around hydro. I had certainly read about how in Portland in Oregon they retrofitted turbines to their town's water supply underneath and used that to power streetlights and various other things in the town.

As a committee we really looked at that and obviously realised that the pipes that are currently being used there are quite small, but then when we spoke to Goulburn Valley Water they said that in fact they were

redeveloping that water supply and they were also very interested in looking at hydro. They were actually considering fitting a hydro system themselves to maintain the power supply to their pump shed and everything else, and that they were also very interested in maybe looking at expanding that idea to being able to supply power back into Euroa at a larger level.

We also realised that we could look at these water storages for not only pumped hydro but that we could possibly couple that down the track with a solar array on the water at some stage. But that is obviously down the track and part of the second stage I think.

Prof. AUTY — And that is in fact where Goulburn Valley Water comes in, because they were very interested in what was happening with pumping water and very interested in what they might do about a solar array. They are not proposals from us, they are proposals from them, and they brought them to the table.

I am told by Tom that he can now work the video.

Video shown.

Prof. AUTY — That video was created by us as volunteers, so you can accept that there is a longer version; that is an edited version for the purposes of this hearing. We know you want to ask questions and you would like us to stop talking about what we are doing, but could I just throw to Jeff Wilmot from Seymour to talk about what they think is important out of the project and the alliance from their perspective.

Mr WILMOT — When I saw on Euroa's list of opportunities this idea of pumped hydro, I remembered that many years ago I had seen a list of future projects by the SEC at the time, and one of them was a pumped hydro storage project in the Trawool Valley. At that time there was a proposition to dam the Trawool Valley and create a very large water storage in the Goulburn River that never went ahead of course. Anyway, I thought, 'Well, I'll have a look' so I went and had a look at the situation there now and felt a bit disappointed about the size of the reservoir. But then I did some calculations and I thought, 'Well, maybe there is a possibility there of generating maybe 4 megawatts or thereabouts'.

Then there was a meeting with the Strathbogie people and the Seymour people with the department of economic development, who were running this New Energy Jobs Fund. They showed interest in this project as being innovative and out of that we made an application—mainly Kate did the work on it; we made a contribution to it—for $100 000. We received a grant of $50 000.

The Trawool Valley has, of course, the Goulburn River flowing through it, and if you look at the bottom picture there, you see the Trawool reservoir at the top. The valley down below is where the Goulburn River is, and if you look down towards the left-hand side there is a green patch with a creek and a band of trees across it. That is where the creek from the reservoir flows into the Goulburn River. It is only about 2 kilometres or so as the crow flies, and it is about 290 metres below the level of the reservoir.

There are probably about three considerations in regard to pumped hydro, and I think they can be regarded as being past, present and future. There are many pumped hydro storage schemes around the world and some in Australia, and they were designed to level the power demand and therefore lop the peaks and reduce the need for power stations. Our application, I think, to succeed will need some sort of financial return which is based on arbitrage—that is, buying the electricity cheaply and selling it at a higher price. That is what we hope will be sufficient to justify the project. But if it is not sufficient, then for future considerations it may be worth government funding or subsidy to proceed with it. Anyway, the future considerations are of course that the problem with renewables has been when you have low wind and no sun, and the idea of a pumped hydro is to provide electrical storage just like a battery but probably a lot cheaper than batteries, we think.

The other possible benefit in the future is to provide inertia in the system. The advantage of these small-scale pumped hydro schemes is that there would be a number of them scattered around the state which matched the distributed nature of the future renewable energy generation. I think that is it.

Prof. AUTY — So in relation to what we are talking about here, from our perspective we have been very interested in getting the community engaged in the energy conversation, and we did not have to work very hard to do that. You have probably got some questions, and we will field them now.

The CHAIR — Thank you, Professor, and I would like to thank everyone for making themselves available for us today. We appreciate that. Your group is working on a feasibility study into developing pumped hydro facilities in your region, and you already mentioned how this project came into being. What are you hoping to achieve from that?

Prof. AUTY — I will throw to Shirley Saywell, who has been really instrumental in guiding some of the general environment discussions in our area. Shirley, would you like to talk about what we hope to achieve?

Ms SAYWELL — Thank you. What we hope to achieve is to demonstrate—and I think we have already done this—that the community are leaders in renewable energy. Communities have sat around waiting for something to happen, and they have stopped waiting and are doing. We have found from our experience just the willingness of people to come forward. None of us has specific experience. Jeff has some, but it is the fact that people in the community have stepped up and with their varying degrees of expertise have contributed. There is no magic bullet to energy problems. All we need is the will to do it, and I think the community has demonstrated that.

With the uptake in solar, which Tom referred to earlier, things are moving really, really quickly. There will be benefits for the community, and the more diverse the range of options that come up—you know, solar, wind, pumped hydro—the better off the community is going to be. I think many people are looking for one solution. There is not one solution, there is a range, and that range of solutions is going to benefit everybody.

Ms RYALL — Thank for your presentation. In relation to this, is the feasibility study completed?

Prof. AUTY — No, it is not.

Ms RYALL — It is still in process?

Prof. AUTY — It is in process. We have had one response back to say, 'Proceed with it', and we are waiting for the second. You can see from the video that Roger Dargaville is one of the people who has been actively involved in making sure that we produce the best possible outcome for that prefeasibility study by way of rigour, research and cogent argument about the viability or not. It is a prefeasibility study.

One of the things that really got us activated on this, and it was serendipitous, was having a conversation with Professor Blakers at ANU. Those of you who have been following the pumped hydro energy storage discussions generally will know that ANU and Professor Blakers are in fact leading in this field. Professor Blakers held a webinar which we just quite by chance ended up being linked into one evening. We are not experts—none of us are energy experts—and we got linked into this conversation. What we found from that was that of course they are doing an awful lot of work on the potential for pumped hydro energy storage all along the Great Dividing Range, so we are not alone in this.

What we were surprised to find when we sat down and thought about what might be the outcome of this was that we did have these dams. They are already there. They are on public land; they are not in a national park. They do not have any of those detractions that often flow when people want to talk about this sort of development. It is not in a national park. We do not have to worry about endangered species. We do not have to worry about getting the sorts of approvals that you might need. They are there.

Then as that discussion started to flow, to use the metaphor, there we were with Goulburn Valley Water wanting to talk to us about their issues, which were what was happening with their dams, so we are talking about evaporation; what was happening with blue-green algae, so we are talking about whether in fact they put a solar array on one of those dams; and it will affect both of those things. That was not something that we had thought about. Professor Blakers has made it very plain to us that all of this is in effectively the

discussion phase at this time. That is why it is a prefeasibility study. We have not moved to a feasibility study because we know we need to do this early work. And we know it has to be rigorous, and we know it needs to be thorough. That is why we got the Melbourne Energy Institute involved and why we have continued to have those conversations with ANU. So it is at that stage at this time.

One of the things that we have not talked about here is that even if we were unsuccessful in respect of what we are proposing to do—even if that happened—we think that our little community energy group has advanced the conversation about the potential for using pumped hydro energy storage. We know that in a way it can be cheaper than batteries. We know the batteries will be made available very quickly and that that has happened in a way that surprised many people. But there will always be the potential to store intermittent renewable energy with this sort of technology. We are rather of the view that the work we are doing may be of assistance to other community energy groups.

In saying that, it has been a labour of love this work. We have made the point in our submission that nobody has been paid to do this. People have given their time. They have done this generously. People have driven up and down the highway and all over the place for these conversations. We have gone up to the hill, we have gone down to Trawool. We have got people on board to do the videoing for free. People have done this as a labour of love. That sort of work is not being funded by the prefeasibility study money. That is being used for the specialists, the experts and the people who are going to unpack that for us.

Ms RYALL — So just on I guess the feasibility side of it, you mentioned that you are on the edge of the grid. Therefore that creates challenges. Would you foresee that the energy that comes from perhaps a project in this area would therefore supply it directly, because in a way you do not have the challenges of an existing grid being completely covered if you like? So how might that work?

Prof. AUTY — It differs from Seymour to us. Just on being on the edge of the grid, it does create challenges in what I might describe as the old way of viewing things. What has been really interesting for us is to be told that it creates opportunities. So in the event pumped hydro energy storage occurred at the edge of the grid in our circumstances, we would not just be storing energy for ourselves, we would be churning energy back into the grid. That is the understanding we have of the capacity that pumped hydro energy storage has. We are not saying there would be a massive amount of energy put back into the grid, but that is certainly what it means.

Ms RYALL — It was more—would you then be then looking to power Euroa, and to what extent? If you are on the edge of the grid and therefore you do not have certainty to be able to create certainty in that instance?

Prof. AUTY — We would certainly take the view that we would be powering Euroa with what came out of this on the days when we currently have the diesel generation kicking in. And can I say this, the diesel generation at the showgrounds has also been the subject of some approaches about whether that ought to be converted to batteries. So we are seeing in our tiny little town on the edge of the grid, the previous basket case on the energy spectrum, people are interested in what it is that we might be able to contribute. And it really is a contribution.

We did not approach AusNet; they came up the highway to talk to us. I remember Shirley and I sitting in the Euroa Library as we had that conversation, thinking to ourselves, 'How did this happen that they find us so interesting when our previous councillor said there was no point in having the discussion about what we might do about innovative energy opportunities?'. And there was AusNet talking to us, having come up the highway to do so. Lickety-split, we could not believe it. They find it interesting, and they find it interesting because they are looking at the ways they need to be powering the country. And it will be, as Shirley says, no silver bullet but a range of options, and they will differ from place to place. In Seymour, for instance, it is different again from us. Do you want to talk about the Cherry Tree Wind Farm, Jeff?

Mr WILMOT — Yes. If you look at that picture again …

The CHAIR — We are running out of time, but I will allow Jeff to say a couple of things because we have got a couple more questions.

Mr WILMOT — That picture there in the Goulburn Valley—just on this side of it there is a 66-kilovolt powerline. The hills in the background are the Cherry Tree range where Infigen is about to build a 50-megawatt wind farm. Their connection will be into that 66-kilovolt line about 2 kilometres upstream from our proposed flow into the Goulburn River. We propose at this stage to connect into the same line. That is a 66-kilovolt transmission line and is in that sense a bit remote from the local community. It is not a direct benefit to Seymour. Well, it is different. But there is a 22-kilovolt system in the area too which is local, and it is possible that we could connect into that. But the fact of being connected into the 66-kilovolt system so close to the Cherry Tree Wind Farm sort of leads us to think about the possibility of levelising their output, although they are talking about 50 megawatts and we talking about 4 megawatts so there is a bit of a mismatch there. But the opportunity is there.

Mr CRISP — Jeff, before I can get into it I will get the technical stuff sorted out. You are talking about moving water from the top reservoir in the valley to the Goulburn River …

Mr WILMOT — Or vice versa, yes.

Mr CRISP — and pumping it from the Goulburn River back up again. You are not going via the middle reservoir?

Mr WILMOT — No, there is no middle reservoir there.

Prof. AUTY — There is no middle reservoir there. The middle reservoir is the Strathbogie.

Mr WILMOT — The top one, the Strathbogie one, does have a reservoir in the middle.

Mr CRISP — As we were showing the video it looked like both reservoirs were in the same valley.

Prof. AUTY — No, they are not.

Mr WILMOT — No.

Mr CRISP — That is good. Now I understand. That is better—I can clear up that bit of confusion. Probably now I just want to explore the value stuff. Goulburn Valley Water own the reservoir and the land. Who is going to build and pay for this? Is it going to be Goulburn Valley?

Prof. AUTY — We are not at that stage yet until the prefeasibility is proved, but there is a possibility that it will be taken on by Goulburn Valley Water. Obviously there would need to be a community benefit, and those discussions have not happened yet.

Ms SAYWELL — Could I just say that Goulburn Valley Water has been very actively engaged in that conversation and has talked about the fact that they are interested in assisting in respect of the financing, but we are not that stage yet. We are still doing the prefeasibility study.

Mr CRISP — All right. For the community, what sort of dividend, payback, are you looking for within this business?

Ms SAYWELL — Again, it is not defined, but there would be a benefit in that we would not be burning diesel down at the showgrounds any longer. It is kind of a shared benefit. I would say that because there are so many towns on the Great Dividing Range—if we can do it in our neck of the woods, why cannot it be done right up and down …

Mr CRISP — Yes, I understand that.

Prof. AUTY — In the prefeasibility study we have also made the point that in the construction phase there would be jobs for the community and there would be ongoing maintenance jobs. We are not saying that this would be the turnaround in respect of employment in a town such as ours at Euroa, or even at Seymour, but there would be those usual sorts of employment opportunities were it to pass the prefeasibility study. This is innovative, cutting-edge stuff for us and for along the Divide in Victoria.

Nobody has done this analysis before, so far as we can tell, in Victoria, and we think that there will be these opportunities in the event that the prefeasibility study suggests that further work should be done, and that is how we have couched it.

Mrs FYFFE — If I could just explore further your conversations and understanding with Goulburn Valley Water. They are responsible for the water, they are responsible for the land. Is there an agreement that this will be a community benefit project or is that just talked about? Could Goulburn Valley Water pick up this idea, use the pumped hydro and get an income from feeding that power into the grid, which would benefit Euroa with more consistency of power? Is there anything to prevent them doing that?

Mr WILMOT — Nathan has suggested that they could finance it and take over the whole project. Yes, it is a possibility.

Mrs FYFFE — Yes. When you were talking that thought came to my mind. I cannot of course speak on behalf of them, but I would watch it. All right. I can just go back to the construction of your committee. I understand it is 30 years the Euroa Environment Group has been going, so is this a subcommittee of the environment group? And how are you formed? Are you elected by the community, by the members, or are you just those people who have stepped forward and got landed with the work?

Ms SAYWELL — Well, that was one of the reasons we had the slide—because it is complicated. The Euroa Environment Group is the auspicing group for the funding but it is made up of The Seymour We Want; BEAM, which is another environment group; the Strathbogie Voices; and then Goulburn Valley Water and SP AusNet have come on board. The environment group is the auspicing body but we are bigger than just the environment group, which is an elected community group, yes.

Mrs FYFFE — So you are bigger than …

Ms SAYWELL — Well, you know, we talked about the committee of 40—and nobody wants a committee of 40—but that was kind of how it came about. We had a series of environmental discussions and somebody from—where is Jurgen from?—Common Ground suggested that we take a vote on who wanted to investigate renewable energy, and 40 people put up their hands, so, yes, it is a bigger group.

Prof. AUTY — Jeff wants to say something about Seymour.

Mr WILMOT — In Seymour we have a group called Sustainable Seymour which arose from a meeting that was called by the Seymour U3A and a group called The Seymour We Want with Beyond Zero Emissions running it and telling us all about the desirability of energy-saving schemes, and out of that we called meetings to discuss the possibilities. We had about 50 people or so come along to those meetings. Out of that we have got about eight hard-core people who are doing all this. There is no formality about the groups but we communicate pretty well.

Mrs FYFFE — Is Seymour looking at any other community energy methods? Are you looking at solar or anything that the group can do?

Mr WILMOT — Yes. In Seymour the shire have what they call the Seymour Sports and Aquatic Centre, and we have raised the possibility with the shire of putting solar panels on that. Out of those discussions the director of engineering and infrastructure, I think he is called, made an application to the local government climate action program for $10 000 and got that granted and they offered to put up another $10 000 towards a feasibility study for that. That was done by the Moreland Energy Foundation, and they reported back on the fifth of this month. It looks like a very favourable project. It is going to consist of 99 kilowatts of solar panels, costing about $120 000, with payback of less than five years.

We still have to get together to decide what we want to do about this, but the probability is that we will put up a proposal to the council that we would set up a community group along the lines, I think, of the Repower Shoalhaven arrangements, because if we can get our group established, we can then move on to other premises and make similar arrangements there and further down the track there is a strong interest in

solar gardens. But of course that will depend on the resolution of the local electricity trading and virtual net metering and so on.

Prof. AUTY — It is true too, Jeff, that Seymour has had support from the Mitchell shire, so Mitchell shire has been very involved in what you have done with The Seymour We Want. We have not had that same level of engagement with the Strathbogie shire in Euroa. And in answering your question, I think I would say that this has been a very organic community energy group. It has been organic to the extent that it has literally come out of other meetings, and it is an alliance that takes that level of organic engagement and organisation seriously. But overlaying on that has been this level of rigour and care, which has come from the experts that we brought in to deal with the issues that we are involved in in Seymour and more broadly.

The CHAIR — Okay. Thank you. On behalf of the Committee I would like to thank you for your time and your contributions. Thank you very much.

Witnesses withdrew.