

TRANSCRIPT

LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into the Industrial Hemp Industry in Victoria

Melbourne – Thursday 7 September 2023

MEMBERS

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Gaelle Broad

Georgie Crozier

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Sarah Mansfield

Rachel Payne

WITNESS

Andrew Little, Ecowall Cladding.

The CHAIR: I declare open the Legislative Council Economy and Infrastructure Committee's public hearing for the Inquiry into the Industrial Hemp Industry in Victoria. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

I would like to begin this hearing by respectfully acknowledging the Aboriginal peoples, the traditional custodians of the various lands we are gathered on today, and paying my respects to their ancestors, elders and families. I particularly welcome any elders or community members who are here today to impart their knowledge of this issue to the committee or who are watching the broadcast of these proceedings. I also welcome any other members of the public watching via the live broadcast.

To begin, Mr Little, we will just have committee members introduce themselves to you, starting with Dr Heath.

Renee HEATH: My name is Renee Heath, and I am a Member for Eastern Victoria Region.

Sarah MANSFIELD: I am Sarah Mansfield from Western Victoria Region.

The CHAIR: Georgie Purcell, Northern Victoria Region.

John BERGER: John Berger, Southern Metropolitan.

Rachel PAYNE: And I am Rachel Payne from South-Eastern Metropolitan Region.

Andrew LITTLE: Thank you.

The CHAIR: All evidence is taken is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders; therefore the information you provide during this hearing is protected by law. You are protected against any action for what you say during this hearing, but if you go elsewhere and repeat the same things, those comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of Parliament.

All evidence is being recorded. You will be provided with a proof version of the transcript following this hearing, and then transcripts will ultimately be made public and posted on the committee's website. For the Hansard record can you please state your full name and any organisation you are appearing on behalf of.

Andrew LITTLE: Andrew Little on behalf of our company, which is Ecowall Cladding, part of our family trust.

The CHAIR: Beautiful. Thank you. We now welcome your opening statement, but we ask for around 10 minutes or less to allow plenty of time for questions.

Andrew LITTLE: It will be a lot less than that. It is late in the day.

The CHAIR: Thank you very much.

Andrew LITTLE: Good afternoon, and thank you for the opportunity to participate today. Our submission comes from our family's experience in attempting to establish a hemp-based farming business on the outskirts of south-east Melbourne, just past Pakenham. In making our submission I am drawing on 20 years of experience in the construction industry, eight years working for tier 1 publicly listed developers, eight years as a registered building practitioner and five years crazily taking on building a farm as well.

A little over four years ago we started on a journey to develop a hemp business. My wife is a teacher specialising in sustainability, and she saw something come up and said, 'Why aren't you building with this?' That started a process, and we decided we would explore the opportunities that hemp could substitute mainstream building products. We bought some hemp, bought some binders and essentially started playing around with ideas. Take the traditional mainstream approach to hempcrete, which you heard about in situ and

all those things – there are commercial challenges when it comes to building with that, so how can we get that to a more mainstream product that can literally slot into a standard build program and substitute for whether it is EPS foam, whether it is Hebel, whether it is bricks? There are opportunities there. So we played around with some products and came up with some ideas. We had purchased our farm at the time and had a range of different ideas and went, ‘Right, we’re going to pursue this avenue.’ Through that phase we had to apply for planning permits, and that is when it got interesting. The level of obstacles that we have encountered – you have heard about all the different regulatory things today. We have got ones through our planning permit process that are so ridiculous that you just would not believe them, but they actually all happened. So a couple of them – I will give you the highlights of them. We had an objection in a special use agricultural zone that growing hemp would cause an odour that affects herbs being grown in an area that has chicken manure. It was comical. The best one that I loved in all of it, though, was growing hemp near their farm would cause them to lose their food certification with Coles because Coles has an independent third-party certifier that certifies your processes. The funniest part about all of that was hemp seed is an approved product on that food certification list. They are two. There were literally hundreds of them. We could be going all day, so I will just give you the highlight reels of those.

Throughout that – I call it misinformation, and there was also disinformation that occurred from objectors to local authorities as council but also in our VCAT proceeding. Ultimately, we did not get our full planning permit to do our entire farm development, so we have had to go back and break down the elements and work through the processes. Rather than getting one planning permit for three stages of a development, we have had to break it down and try and pick it off as we go. So in our business plan these headwinds really stunted us. We have probably spent over a quarter of a million dollars in just holding costs on getting to where we have got so far, which is 18 months into a four-year business plan that extends into a 10-year business plan. But whether we are committed or should be committed, we have continued. We believe in what we are doing. I believe that as builders we need to build more sustainable, we need to improve our practices and we need to change our products, and that is why I have continued, I guess we have continued, to pursue that opportunity.

In our submission we have not really touched on a lot of things that everyone else would cover because I kind of thought you were going to get a lot of submissions in that area. I have gone into the areas that, whether you are building a cooperative hub structure that is surrounded by 10 farms or whether you are a standalone farmer looking to value-add to a product and create the end product in the one place, are the legitimate challenges that you are going to face within the Victorian planning systems and all the extensions that come down the line. I know that you guys cannot change the land use definitions, but you can certainly influence them. So hopefully out of what we do today I can enlighten you on the benefit of what we have gone through, and we can influence some change.

The CHAIR: Beautiful. Thanks, Mr Little. We have about 35 minutes for questions, so I will start with Dr Heath.

Renee HEATH: Thank you. And thank you so much for your submission. In it you wrote, now let me just find it, other state governments, such as Tasmania and Western Australia, have supported investment in hemp, which has seen those markets progress sustainably and substantially more than Victoria. What sort of supports are they?

Andrew LITTLE: I know that one of the hempcrete block making plants in Western Australia got a fairly large government subsidised grant, which really supercharged their manufacturing process and their capacities. And that sort of gave them a springboard, so I would say, if you talking about from a building perspective, Perth is probably more advanced in hempcrete construction and block construction than most other parts of Australia, just off the back of that.

Renee HEATH: Are there any risks associated with the product?

Andrew LITTLE: Not that I have seen. Look, at the end of the day, if you are building a house, if you take a short cut – whether you are building with brick veneer, hemp, weatherboards – on your engineering or any of your building processes, it is going to bite you. If you do the right things, you follow the right processes, you follow the right manuals and you do your due diligence, you should never have a problem.

Renee HEATH: Yes. What changes could this government make, to make life easier for people like you?

Andrew LITTLE: I subscribe to the theory that the process to get a licence – I do a police check every 18 months. Not one of the departments talks to the others. I do volunteer ski patrol – I have to have a working with children check; that renews every three years. I do a five-year licence renewal for my domestic building licence, and then 2 ½ years later I do a five-year licence renewal for my commercial building licence. And then every three years in between all of that I do a different police check for my hemp licence. None of those police checks crosses over. That is one area that straightaway you just go, ‘Four police checks!’ You have got a police check; you have either got one or you have not. There is that part.

I think there are opportunities with the paperwork. We have all heard about the form. I found that form more complicated than my building licence. Admittedly, more time is spent on a building licence, but I found that form overly, unnecessarily complex for what it is. If I am building a project for someone who is going through the ODC process, I can understand it in that space; I cannot understand it in the hemp space. Certainly, if we want to talk about Victorian planning provisions, there are major opportunities to simplify that. Out of my VCAT decision, they essentially determined that manufacturing hemp products is industry after it ceases to be primary produce, yet tomorrow I can go and buy a \$2.5 million excavator, a \$2.5 million Moxy mine truck, a brick-batching plant and a front-end loader and I can apply for a planning permit and happily produce as many mudbricks as I want, as rural industry. I cannot use that same brick-batching plant with a tractor and a decorticator to make hemp. To me, that makes absolutely no sense.

Renee HEATH: Thank you.

The CHAIR: Thanks, Dr Heath. Dr Mansfield.

Sarah MANSFIELD: Thank you. I am interested in understanding whether there are other jurisdictions that are using hempcrete at the moment.

Andrew LITTLE: It is being used everywhere across Australia, mostly in situ. I would say probably 90 per cent is in situ-based – whether it is in situ as in sprayed or formwork in situ, not precast. There are a lot of people doing a lot of work about precast options.

Sarah MANSFIELD: Okay. And how long has it been in use for?

Andrew LITTLE: I have been aware of it for five years, and it goes back way before that. From a Victorian perspective, I understand the first project was sort of mid-2000s.

Sarah MANSFIELD: Okay. And how about overseas?

Andrew LITTLE: Overseas, it is far more advanced. In Europe, it is quite a mainstream building technology. When I say mainstream, it is probably a 5 to 10 per cent market share. In Australia I would not even say it is at 1 per cent.

Sarah MANSFIELD: Do you think the demand is there?

Andrew LITTLE: The demand is there, the supply chain is not. The supply chain is cost prohibitive at the moment. One of the main reasons why we want to do the end-to-end process is that the cost to buy the various components and then combine them puts the product at a premium that the consumer will not pay for. Doing the entire process on-farm in the one spot means that we can deliver a hempcrete product to an owner-builder, an end consumer or a builder at about a 5 to 10 per cent premium – because obviously design affects cost – on brick veneer. We did a fair bit of market research around that, and generally people were prepared to pay between 10 and 15 per cent for that green friendly – look at the green power schemes; people are prepared to pay that little bit more to understand that they are actually doing something good for the environment.

Sarah MANSFIELD: If we were to remove those regulatory and planning issues that you have identified, do you feel that that would be enough to make that market more viable?

Andrew LITTLE: What it would do is when people get through that first hurdle – because you have still got the issues of banks do not lend to it, right? Banks do not lend to it, but because you have now unlocked the potential for the market you may get private investment; you may get philanthropic investment. Government may come up with a way for a discounted loan scheme, because if government gets involved, you can guarantee the banks will not be far behind. If you unlock those things, the wheel starts turning. Because

planning is no longer a hindrance, a farmers co-op might get up. A farmer might have a 200-acre property. Currently people chuck 20 acres in the ground – ‘What am I going to do with it? Nothing. Don’t worry about it, not going to do it again.’ They drop off that licence at the end of the three years. So if you unlock that capacity and there is product and there is a supply chain, essentially the industry will supercharge itself.

Sarah MANSFIELD: One of the other things you raised was that it has not been performance tested like other building products. In other jurisdictions where it is used, what is that process?

Andrew LITTLE: There is performance testing in Europe. At the moment when we write a performance solution – if I go a bit builder technical, just tell me.

Sarah MANSFIELD: That is fine.

Andrew LITTLE: Currently to use the product in a building in Australia you have to write a performance solution for it. There are some people that are close to getting through CodeMark certification. That is about a \$60,000 to \$150,000 process for a product. So you develop a performance solution, you are leveraging the test results from Europe to say that this product fits, and then you are paying \$15,000 for a report from one independent building surveyor to tell another independent building surveyor that this product is safe and that it is not going to burn the house down and it is not going to cause problems.

Sarah MANSFIELD: So what could be done to address that here?

Andrew LITTLE: There are two ways that it can be overcome. The Minister for Planning is effectively our building minister in Victoria. The Australian Building Codes Board can commission a process to create an Australian standard, so then if there is an Australian standard that relates to the specifications of hemp hurd, hemp binders and/or hemp-based bricks and hemp-based building products, if there is a specification that you can perform to, the test becomes cheaper because you do not have to go through the entire CodeMark certification. You are just saying, ‘Here’s my Australian standard. Here’s my performance results that say I made it,’ tick. Then that process becomes simpler. But again, that is a three- to four-year process – a substantial investment from somebody to come up with that. But that would certainly make the process a lot easier, because it takes about six weeks to do a performance solution on hemp.

Sarah MANSFIELD: Thank you.

The CHAIR: Thanks, Dr Mansfield. Mr Little, could you talk us through this a little bit more? Obviously we are facing a situation in Victoria where we are about to end native forest logging, and this could potentially be an opportunity for the people that are impacted by that transition. Do you think that it would be a suitable industry to transition workers into?

Andrew LITTLE: Absolutely. The opportunities in that space – if you look at plybrace board, composite plybrace boards are sandwich-pressed with glues that are using chip and pulp. You tell me you cannot build that out of hemp. There is that part of the industry. There is the paper part. There are so many other parts. If you are getting that scale up, I can guarantee you an insulation batt machine will come along, because you are going to strip the fibre off the outside of the hurd. You are not going to use that in a brace board. You are going to value-add that and make that into insulation batts, so then again you are just supercharging all the industry components.

The CHAIR: Sorry, I have been only learning about hempcrete recently, so forgive me if I ask any silly questions. Obviously there are a lot of challenges facing the building industry right now, and one of those is supply of products. If the regulations that are creating challenges for you were amended or removed, it would obviously be a more accessible source. Does it have the opportunity to be cheaper than other building materials?

Andrew LITTLE: No.

The CHAIR: No.

Andrew LITTLE: Anything can be cheaper when economies of scale come into play. Right now it is not greed, but at times there is profiteering in seed prices. Two years ago I bought seed for \$8 a kilo. Last year it was \$16.50 – different variety, different yields. I am playing around with what I can sow. I threw crop in on the

weekend as a trial because temps are up in the soil. I took the opportunity, had some seed, went, 'Hey, I wonder if it will grow now.' You do not know if you do not try. If you address input costs, yes, there is an opportunity, but when you add on all the other factors of decortivating machinery and all those main infrastructure things, could it get to cost neutral? Possibly. Will it happen in the next 10 years? Highly unlikely.

The CHAIR: Great. Thank you. Mr Berger.

John BERGER: Thank you, Chair. It is always a disadvantage – we have already gone through a few questions.

Andrew LITTLE: That is okay.

John BERGER: We have already knocked off the ones that I was thinking about, but I am –

The CHAIR: Sorry, I probably asked the one you were going to ask.

John BERGER: I had I do not know whether you would call it the pleasure or the opportunity to visit a factory up in Wangaratta that does that very board you are talking about, where the shredded fibre is then fed into the machine – it is just one big continuous line – and the particle board comes out mixed with the resins. Does that happen with hemp? Are there resins in there to firm it up?

Andrew LITTLE: Yes. Essentially you have got to have some sort of bonding glue. There are a lot of different bonding agents. I am meeting with someone tomorrow morning about a geopolymer. One of the other opportunities that I want to explore is a weatherboard. It is thinner, it is not quite that pressed board, because the pressed board wants to be down at 6 millimetres. We probably want to be closer to a substitute of a Baltic pine weatherboard. That is another opportunity for a composite product.

John BERGER: In terms of your bricks, are you looking at growing the hemp plant and then processing it yourself?

Andrew LITTLE: Yes.

John BERGER: I am just wondering whether that hub scenario would be of benefit to you.

Andrew LITTLE: The hub scenario is not a benefit to me, because –

John BERGER: You are end to end.

Andrew LITTLE: I have done the cost due diligence of it. What people want to sell hurd for out of those scenarios is great for the owner-builder market, because they are not factoring the labour into the cost of the product. It is not good from a builder point of view, because essentially there is a 25 to 30 per cent premium on the product at that point. I can drop a machine into Australia for about \$200,000 out of the States that will do my decortication and sorting, and then all I need is a brick-batching plant. Obviously there is a little bit of money in connecting them all up and making them all work together in harmony, but most of the machinery that you are going to look at in a hub point of view is probably going to be about the scale of between a \$1 million and \$3 million investment. They need to be up at a very high scale to make the economy of scale work. I do not need that economy of scale at an entry point.

John BERGER: So in terms of your bricks, have you got any prototypes made?

Andrew LITTLE: Yes. I have made prototype panels. I have made prototype bricks. I have played around with all different –

John BERGER: Who do you envisage being your market?

Andrew LITTLE: From a panel point of view?

John BERGER: No, brick.

Andrew LITTLE: From a brick point of view, today it would probably be owner-builders and/or GreenSmart builders, who are already playing around in that space. So if I was at year four of my business plan,

in five years time I would view that that would probably shift substantially to builders, purely because with where the building codes and the standards are going, I suspect – we have already seen it in commercial buildings with all the combustible cladding stuff – it is only a matter of time before that happens to residential building code, and hence why I want to be ready with product in that space.

John BERGER: Because I think from the way I am looking at it is that you are only going to succeed by scale. No-one is going to want to go into buying these bricks just because they want to feel good about themselves. They are going to want to make sure that you have got sufficient to supply in the first instance and they stand up to all the regulations and all the standards, I suppose, that are there. Again it comes back to that market. It is who you are pitching it at.

Andrew LITTLE: So off our property that we currently have, with our proposed crop cycles and all of our yields and all of that testing that we have done, we can basically manufacture enough to do between 6000 and 7000 square metres of product per crop.

John BERGER: And like a house brick or a besser brick?

Andrew LITTLE: We have played around with both. It will probably be closer to a besser brick. So are you familiar with schooners?

John BERGER: Yes.

Andrew LITTLE: Schooner bricks – yes. Schooner brick for those who do not know is a double house brick. They use them a lot in Western Australia. So it is probably going to be similar to a schooner brick in size because you want that efficiency of lay. The main reason why concrete blocks are not bigger is they are too heavy. The advantage of a hemp block – we did a trial panel, 2.4 by 900, 75 millimetres thick, and dry weight was 36 kilos.

John BERGER: Okay. And what is the adhesive between the brick courses?

Andrew LITTLE: Basically a lime binder. So the same binder that you use to bind the product together you used to glue them together.

John BERGER: There you go.

Andrew LITTLE: So what we did was we spoke to – I have got a very good friend who is a solid plasterer. He over about 3 hours took the binder and played with different sands. I have got a render mix. So then we can bag up a render mix. So you are not buying binder and having to try and do 30 years of his brain on the fly. Here is a bag, put 6 litres of water in it, trowel it on the wall like any other render product. Likewise, take that binder, put it into a sausage, put it into a gun. So the approach that we wanted to take was all you are doing is changing the material that you are putting on the wall. For the renderer, for the carpenter, whoever it is that is doing it, it is the same process as what you are familiar with.

John BERGER: And one final question if I could –

The CHAIR: Of course.

John BERGER: What is the life span on a brick?

Andrew LITTLE: No different to any other thing. Most people will actually knock the house down and do something else with the house before it fails.

John BERGER: Is there an anticipated life time frame on a brick?

Andrew LITTLE: Again, because of the masonry composition I have not seen anything at 20-plus years old yet, but I have done some pretty nasty things to prototypes that I have built. I have hit golf balls at them. I have sat them in semisubmerged grass so that they could try and –

John BERGER: Grow?

Andrew LITTLE: Not grow but see if they will propagate mould. I have done all the things that you should not. So if you follow the CSIRO guide to maintaining your home, I have done all the things that you should not, that are on the no list, right, because for me as a practitioner, I do not want to go and put this in someone's house. I have got to guarantee it for 10 years; and nine years and six months down the track I get a phone call, and I have got to go and rip someone's house out and repair it.

John BERGER: You do not want that.

Andrew LITTLE: I am not interested in doing that, let alone what my insurers would do to me.

John BERGER: Thanks, Chair.

The CHAIR: Thanks, Mr Berger. Ms Payne.

Rachel PAYNE: Thank you. And thank you, Andrew, for coming and presenting today as well as for your submission. And I really love your personal story of your partner telling you, 'Why aren't you building with sustainable material?' I am a huge fan of hempcrete, and I think there is so much potential for Victoria in that space. So I just wanted to talk about hemp as a unique building material. What are some of the benefits? I think John referred to the life span. My understanding with hempcrete is that it continues to gain strength in its life span.

Andrew LITTLE: I bought myself a density pressure gauge because I wanted to see what it was like. It was just the curiosity part of me. I could not help but poke it and try and break it. There are a lot of peer-driven reviews and studies from overseas that talk about the fact that because of the lime and the composite, it does continue to absorb carbon. I guess the bell curve slows down a lot. I think most studies seem to suggest that at about that 7- to 10-year mark is where it caps out. Has anyone gone and done a performance test on a 10-year-old wall? I do not think they have. Maybe that is a project for CSIRO.

I would love to do a bracing test on an in situ hempcrete wall, because currently when we design it you do not even build in the fact that you have compressed the wall. You do not get any bracing credits for it as 'concrete'. So if you pour a concrete wall, that is deemed to be braced. If you compress a hempcrete wall, it is not. And that is because we have never done the test. So it would be interesting to see a CSIRO project where you build a hempcrete box and try and blow it over at a cyclone speed and actually see what the bracing capacity is of the wall at, say, plus-45 days when you would typically render it.

Rachel PAYNE: Some of the contributions throughout today have mentioned hemp as being fire-resistant. Is that your experience with hempcrete? Would you mind expanding on that?

Andrew LITTLE: Yes. There are lots of wonderful tests on the internet where people take blowtorches to it and go, 'Look at this. It's great,' et cetera. For me, the one that I want to see is the actual. When I have got the money and when I have got that opportunity, I would love to test a legitimate party wall set-up of hemp and actually put it through the 60, 90 and 'see how far it goes' test. I reckon it would certainly get to 90 minutes – easy. I wonder whether it would beat Hebel and get past 180. I do not know. I think it would. There was a bushfire that went through southern Perth where one of the hemp plants was and all the hemp blocks survived, so that is probably as good a real-world test as you can get, but I would love to see the theory test done.

Rachel PAYNE: Yes.

Andrew LITTLE: Currently I do not think my wife would like me proposing that idea in the house.

Rachel PAYNE: As someone who has a background in construction, I am really interested to know around the substitution there. Have you seen any other product that operates like hemp, or is it quite unique in that space? And is it an easy substitution?

Andrew LITTLE: It is not an easy substitution because you have got to walk the client through the process. If you have got a client that is already open to it, it is a different conversation. It is probably a different space to rammed earth but similar. And again, it is probably a different space to straw bale – still different because it has a different composition and a different process. They are probably the two most comparable, but they are not even really – they are apples and oranges still.

Rachel PAYNE: I guess, just finally for us as a committee, you mentioned some of the obstacles around planning permits, the process to getting a licence and that departments do not talk to each other – is there anything else that we should consider as a committee, particularly in relation to the building industry and entry into the industry in the innovation space?

Andrew LITTLE: Builders are generally pretty quick to adapt. I think if the settings are right and the products coming to market are right, builders will very, very quickly adapt. I think it is really just about unlocking that planning scheme, because cost is king. You go to a builder. I could walk into five or six volume builders tomorrow and go, 'I've got this panel. I can do this, we can do that, we can do that,' and the first thing they are going to say is, 'What's it cost?' And I am going to go, 'It's 25 per cent on what you're paying for foam now.' They are going to go, 'See ya.' You go in and go, 'It's green, it's 5 per cent, hey, I'll do a hempcrete wall in your display home,' and they are probably going to sell it as an upgrade, but at 5 to 10 per cent people are going to pay that.

Rachel PAYNE: Okay, excellent. Thank you.

The CHAIR: Thanks, Ms Payne. I do not believe we have any other questions from committee members, so thanks very much for coming along today and for your submission.

Andrew LITTLE: Is it worth touching on – because I know we did not specifically talk about it, but I did provide some information about the land use definition, and it provides what I would view as a substantial competitive advantage for New South Wales over Victoria.

The CHAIR: Go for it.

Andrew LITTLE: In the Victorian planning scheme, 'rural industry' says 'handle, treat or pack agricultural produce', which is fine, and obviously in 2013 Matthew Guy as the then Minister for Planning went through a process to add 'manufacture of mudbrick' to that. I think I submitted the DELWP report or the planning officer's report and the minister's reply to that with the submission, so if you have not got it I can definitely send that. When you look at New South Wales as a comparison, and I did this recently because I was talking to someone else about this, they have a far more expansive definition of rural industry. They say it means 'the handling, treating, production, processing, storage and packing of animal or plant agricultural products for commercial purposes.' We just simply say, 'It's land used to handle, treat and process.' So the key factor for me is that they bring in that, 'Hey, it's got to be commercial.' You cannot just be doing it as a hobby on the side; it has got to be commercial, but they talk about it in a far broader and more specific way. They talk about production. They talk about that. In our planning permit at the VCAT hearing, the whole breakdown happened because in Victoria it is 'handle, treat, process.' If we had those other extensions to the definition, all my people assisting me in planning matters tell me that that would probably be a different outcome.

The CHAIR: Okay. Thanks for that context. That is great. Thank you very much for coming along and speaking with us today.

Committee adjourned.