

PROOF VERSION ONLY

LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Climate Resilience

Melbourne – Wednesday 6 November 2024

MEMBERS

Ryan Batchelor – Chair

David Ettershank – Deputy Chair

Melina Bath

Gaelle Broad

Jacinta Ermacora

Wendy Lovell

Sarah Mansfield

Rikkie-Lee Tyrrell

Sheena Watt

PARTICIPATING MEMBERS

John Berger

Ann-Marie Hermans

Evan Mulholland

Rachel Payne

Aiv Puglielli

Richard Welch

**Necessary corrections to be notified to
executive officer of committee**

WITNESS

Andrew White, Chief Executive Officer, Victorian Forest Products Association.

The CHAIR: I declare open the Legislative Council Environment and Planning Committee's public hearing for the Inquiry into Climate Resilience here in Victoria. The public hearing is for the Environment and Planning Committee, a cross-party committee of the Legislative Council in the Victorian Parliament, looking at the resilience of the built environment here in Victoria with respect to climate change. We will be providing a report to the Parliament, which may include recommendations to the government. Can everyone please ensure their mobile phones are on silent and background noise is minimised.

I will begin by acknowledging the traditional owners of the lands we are meeting on here today, the Wurundjeri people of the Kulin nations, and pay my respects to elders past and present and acknowledge any Aboriginal or Torres Strait Islander Australians who may be participating in today's proceedings. Welcome to everyone who is following along at home on the live broadcast and to anyone with us in the public gallery, and I remind those in the public gallery to please be respectful of the proceedings at all times.

Welcome to the representative of the Victorian Forest Products Association. All the evidence that we take is protected by parliamentary privilege as provided by the *Constitution Act 1975* and the provisions of the Legislative Council standing orders. Therefore the information you provide during the hearing is protected by law. You are protected against any action for what you say during the hearing, but if you go elsewhere and repeat the same things, these comments may not be protected by this privilege. Any deliberately false evidence or misleading of the committee may be considered a contempt of the Parliament.

All evidence is being recorded, and you will be provided with a proof version of the transcript following the hearing. Transcripts will ultimately be made public and posted on the committee's website.

Welcome, Andrew.

Andrew WHITE: Thank you. Thanks for having me.

The CHAIR: My name is Ryan Batchelor. I am the Chair of the committee and a Member for the Southern Metropolitan Region of Melbourne. I might ask the rest of the committee to introduce themselves, and then we will let you make your opening statement.

David ETTERS HANK: David Ettershank. I am the Deputy Chair. I represent Western Metropolitan in Melbourne.

Sarah MANSFIELD: Sarah Mansfield, Western Victoria Region.

Gaelle BROAD: Hi. I am Gaelle Broad, Member for Northern Victoria.

Wendy LOVELL: Wendy Lovell, Member for Northern Victoria Region.

The CHAIR: And joining us online we have –

John BERGER: John Berger, Member for Southern Metro.

Jacinta ERMACORA: And Jacinta Ermacora, Member for Western Victoria Region. Good morning.

The CHAIR: I might invite you, firstly, to state your name and the organisation you are representing for the Hansard and invite you to make an opening statement of around 5 minutes.

Andrew WHITE: Thank you. Thanks, Chair. My name is Andrew White. I am the CEO of the Victorian Forest Products Association. Thanks, Chair, for the opportunity. The Victorian Forest Products Association welcomes the opportunity to present before the committee and the inquiry into built ecosystems and climate resilience. I would also like to acknowledge the traditional owners of the land on which we meet and pay my respects to elders past and present.

VFPA – we are the peak industry body representing the forest products value chain in Victoria. That includes those processing and producing our sustainable wood, so plantation growers who are growing trees through to those who are processing that wood fibre into an extensive range of products, such as our sawmills. These are used by Victorians in a range of different ways every day, including in the housing and construction sector. It is widely acknowledged that the building and construction sector is a significant contributor to global emissions, responsible for around 21 per cent of global greenhouse gas emissions, with timber-based design options currently representing around 2 per cent of mid- to high-rise building and construction projects in Australia. However, we believe there is a substantial opportunity to reduce embodied emissions through increased use of timber products in large-scale buildings and in houses. While this inquiry has a focus on climate resilience, which I will touch on as well, it is useful also to understand the roles of adaptation, mitigation and resilience as the different climate change strategies, which you would be aware of. As you would know, an adaptation strategy aims to reduce the impacts, mitigation is reducing the cause and resilience is the capacity to cope with and withstand the effects of climate change.

Today I will focus on how we can prepare for and mitigate the impacts of climate change on our built environment and infrastructure. What is clear is that the challenge to limit global warming to below 2 degrees will only be achieved if the embodied emissions at the construction stage and the operational emissions used to operate buildings, such as energy, cooling, heating et cetera, are both reduced dramatically. Construction emissions are called embodied emissions and are expected to account for more than half of the entire carbon footprint of new construction between now and 2050.

So what are the solutions, and how do we reduce these embodied emissions? We believe that forestry and trees have a significant role to play in our move to a net zero carbon future. At the construction stage maximising timber in residential dwellings and large buildings can provide substantial carbon sequestration up-front – as we are growing the trees, they are obviously sequestering the carbon – and provide mitigation advantages over cement and steel through lowering embodied carbon emissions.

The development of engineered wood products like GLT and CLT has been instrumental in the move towards a greater use of timber, particularly in medium- and high-rise buildings, and this had led to construction efficiency through increasing prefabrication and modular housing opportunities. CLT and GLT, for those that are not aware, are essentially pieces of timber that are glued together to make a super-strong piece of timber. This has actually been available in Australia for decades, but it is now starting to gain a lot of prominence. While EWPs, engineered wood products, have traditionally been used in the housing sector, these are now being used in buildings that are higher than eight storeys, larger buildings, as a way of minimising the embodied emissions in those built environments.

As well, the built ecosystem resilience will need to increase overall to ensure that buildings are safe, reliable and healthy shelters during extreme climate events. At the same time, we must avoid locking in emissions in inefficient and unsafe structures.

Interestingly, mass timber can actually perform better in fire compared to steel and concrete due to its inherent charring behaviour. When exposed to fire the outer layer of mass timber will char, which creates a protective layer that insulates the underlying wood and slows down the spread of fire, and this is known as self-charring. The unaffected wood behind the sacrificial char maintains its structural integrity. In contrast, steel and concrete can lose their strength and structural integrity when exposed to high temperatures. Steel can weaken and buckle when heated, and concrete can spoil and crack due to the expansion of water inside the material. So overall, we would argue that code-compliant timber frame construction is robust and resilient when subjected to adverse and extreme conditions, including those associated with floods, bushfires and cyclones. Of course the design is very much key in the creation of these constructions and buildings.

When it comes to housing, obviously the Victorian government has committed to a large target in terms of the amount of houses that we require and to building new homes in metro Melbourne as well as regional Victoria. However, without decisive action all new buildings across the world will increase carbon emissions at a global average of 0.7 per cent per year. Currently, globally we have around 203 tall timber buildings either proposed or under construction. We need to do more. We believe as the forest products association that a key part of the solution is within our grasp. Carbon is obviously sequestered in trees and harvested in those timber products and then stored for the life of that product. Our research shows that our plantation trees store on average

30.3 tonnes of CO₂ per hectare each year compared to environmental plantings of 7.7 tonnes of CO₂ per hectare.

Victoria is actually the home of plantation forestry. We have more timber plantations in Victoria than any other state around Australia, so there is a significant opportunity for Victoria as the home of plantation forestry to do more and be a leader in the decarbonisation of the environment within Australia and globally. We know that each single-storey house contains around 12 cubic metres of wood, which sequesters 22.2 tonnes of CO₂, while each two-storey house sequesters 37.4 tonnes and a mid-rise commercial building can store 2280 tonnes of carbon.

So among our recommendations, in concluding, we would like to see the Victorian Parliament establish a bipartisan policy on greening construction with sustainable wood products. We know in France all buildings must be constructed with at least 50 per cent wood and other natural materials, and that includes buildings that were constructed for the 2024 Olympics. Requiring new building projects to give preference to domestically produced sustainable timber products, a kind of wood-first policy for housing in Victoria, could include preferencing structural engineered wood products in multistorey construction such as social housing. Secondly, we would like to see the Parliament introduce embodied carbon reduction requirements for government buildings and projects. To do this the government and the Parliament would need to endorse an agreed state framework to actually measure, verify and compare embodied emissions in new building projects and major refurbishments. This will be essential to allowing building owners and investors to set robust and measurable targets. We understand the New South Wales government are taking the lead in this through their NABERS program with engagement from industry and are looking to also establish a national standard for embodied carbon in Australian buildings. However, I think there is an opportunity for the Victorian government to deliver its own strategy on embodied carbon emissions and take a more proactive approach and to introduce a requirement like in New South Wales to require measurement and reporting of embodied emissions in all building types so we can capture this valuable data to inform future policies.

Thank you, Chair and the rest of the committee, for your time. I may have gone over 5 minutes, so apologies.

The CHAIR: That is okay.

Andrew WHITE: I will leave it there, but thank you very much for your time.

The CHAIR: Great. I will start. You mentioned in the submission the use of more timber frame construction, particularly in multistorey dwellings. Obviously the government has announced some ambitious plans to build more homes here in Victoria, and they will rely on more density in certain locations. How much of that kind of medium-density multistorey residential construction – apartment-type construction – do you think is possible to do using timber frame timber products, in terms of not the quantum but in terms of the types of buildings that we could see in Melbourne?

Andrew WHITE: That is an interesting question. My understanding is from speaking with my members who are creating these products. To give you a bit of context, the building I work in is Melbourne's tallest timber building.

The CHAIR: How many storeys?

Andrew WHITE: That is a good question. It is over 14 or 15 storeys.

The CHAIR: Right. Okay.

Andrew WHITE: It is big enough. That has just recently opened, and that has had a 34 per cent reduction in the carbon footprint through its build. That sourcing product, like I was saying, is the GLT, the glue-laminated timber, which is essentially this timber where you are gluing them together. I think going directly to your question as to how much is possible, it is difficult to put a figure on it, but through discussions with my members there has not been any indication that there are particular impediments to particular buildings being built. I think more so it would be a case of us needing to ramp and scale up our supply end of those products to meet that demand. So I think it would be more a question of creating the product to go into it than a kind of question around if it is it feasible. I think the feasibility is very clear; it is just that historically these buildings have been dominated by a concrete construction or a steel construction, with minimal timber.

The CHAIR: On that, what is your understanding of the difference from a livability, thermal efficiency and environmental comfort point of view of a building that is thick slabs of concrete versus one that has got more timber throughout?

Andrew WHITE: Yes, sure. On the thermal heating question, I would have to take that specifically on notice; I do not have data to hand on the question of thermal heating. What I do have information on is in terms of human wellbeing. There has been quite a lot of research done around – and this may sound strange – the impact of having timber buildings and how integrating wood into buildings creates a warm and natural environment. So there is some research I can provide –

The CHAIR: That would be great.

Andrew WHITE: that, from an emotional wellbeing perspective, as strange as it sounds, timber is better –

The CHAIR: We are human. We do have emotions; it is an important part of our lives.

Andrew WHITE: That is right. Obviously the main thing is reducing that carbon footprint. Timber is also lighter, so it has less impact in terms of roads. It is also quieter, or less noisy, to construct. So when you are talking about prefabrication and these types of things, our research has shown that it can reduce construction noise, time and disruption in that way as well in the construction stage.

The CHAIR: Because the alternative construction methods are harder and noisier – to kind of drill together and those kinds of things?

Andrew WHITE: Yes. Look, I am not a builder per se, so I could not speak in detail –

The CHAIR: Okay. Neither am I, so we are on the same page.

Andrew WHITE: but essentially the information I have, the research that we have to hand, is that it is less noisy, it is less heavy, it is quicker to construct and it has a lower carbon footprint, but it just has not been rolled out on a mass scale. This is an emerging area of construction. Like I mentioned, the building I am in has just recently opened. It is Melbourne's tallest timber building. Surprisingly, despite these products being around for quite a while, at a mass scale this is a new and emerging trend in construction, with these kinds of green-star buildings.

The CHAIR: Great. Mr Ettershank.

David ETTERS HANK: Thank you. Thank you for your submission this morning. Can I just start out with a question? I am happy to take as given the carbon advantages of using sustainable timber, but I have a couple of questions about practicality, I guess. Over the last couple of years in the building industry there has been obviously a chronic shortage of timber, and it has either got to be imported from interstate or overseas. So I sort of wonder about the practicality of mandating increased timber usage when the supply is manifestly not there and it is not something that you are going to, pardon the pun, grow into quickly.

Andrew WHITE: It depends on the product, I think is the answer to that question, Deputy Chair. We have abundant radiata pine, which is used for frames and trusses for housing, so there is absolutely no issue there. In fact at the moment, despite projections of a long-term shortage by 2050, we actually have a lot of product available because of the housing slowdown. My members are wanting to see more product out the door, so the quicker we can build houses, the better for us. We have got substantial plantations for radiata pine. The Victorian government has just announced recently a \$120 million program for expansion of those resources and assets.

David ETTERS HANK: But that will be decades away, won't it, before they become available?

Andrew WHITE: It will be decades away, which is why we need to start planning now for the future, but we do have plentiful resource in terms of plantation pine available at the moment.

David ETTERS HANK: So that is more suitable for your –

Andrew WHITE: Frames and trusses.

David ETTERSHANK: low-rise residential.

Andrew WHITE: Houses, yes.

David ETTERSHANK: If we are looking at housing priorities at the moment and obviously medium rise to high rise, but let us focus, say, on medium rise, where does the timber industry stand in terms of supply and I guess also competition again in terms of supply chain reliability and cost?

Andrew WHITE: I will come back to the question on cost. I have some data on that. In terms of supply, without putting figures on it, we could be doing a lot more than we are at the moment. To your question, 'Is it going to be enough to meet where we need to get,' the short answer is no, we need to be planting more hardwood plantations. There are some issues around, as you said, importing of product, because there was a decision – and I will not go into the politics of it in this hearing, but obviously in Victoria we ceased native timber harvesting in I think it was January. So when you are talking about softwood, which is radiata pine, we have sufficient plantation assets. When you are talking about hardwood, which is used for floorboards, cladding and also those glue-laminated structural products, which is basically a wood beam, if you like, that is replacing what would otherwise be concrete or steel, the short answer is no, we do not have enough supply. We need to be getting more hardwood plantations in the ground now because, as you said, they take 20, 30 years to grow. We are importing those from either interstate overseas. There are some plantation assets in that space, but it is not sufficient to meet demand. At the same time my members are telling me we could be doing a lot more. Their businesses are able to scale and they do have sufficient supply to be able to scale now. But in the longer term you are correct in saying, yes, there is a shortage, and we would need to be looking at planning for that in terms of planting those trees soon.

David ETTERSHANK: Sorry, can I take you back – I missed something there.

Andrew WHITE: Yes, sure.

David ETTERSHANK: How is it a problem in the longer term rather than the shorter term? Because the supply shortages are now, aren't they, particularly for your harder woods and for your structural stuff?

Andrew WHITE: For the hardwood construction there are some shortages at times, but they are able to get product from interstate to meet demand. The answer is they could be doing more, but ultimately we do not have enough supply to do what we would like to do.

David ETTERSHANK: Okay. Given the obvious pressures on construction costs at the moment, what is your understanding of the relative cost comparisons of using timber vis-a-vis steel and concrete? There are two factors there: one is the cost of construction and the other one is time of construction. Do you have views on that?

Andrew WHITE: Yes, I do have some data on the cost of construction, and I can provide this as well separately to the committee.

David ETTERSHANK: Okay. We are happy to take that on record. That would be great. Thank you.

Andrew WHITE: Yes. I can read out some of the information, though. Modelling that has been done is showing that for a conventional construction of a seven-storey office building the cost would be \$8,379,104. For a timber structural solution you are looking at \$7 million or \$7.2 million versus \$8.3 million, so essentially a \$1.1 million saving. As you go to different size buildings there are different amounts. For an eight-storey CLT apartment building you are looking at a \$291,000 saving with timber – this is just the cost alone, not the emissions or anything like that. A two-storey aged care facility, for example, is \$112,600 cheaper. So we have done some modelling on the cost. In terms of your question on time, because a lot of these solutions can be pre-done, there is a time saving. I do not have specific data.

David ETTERSHANK: If you go prefab construction, are you talking about – go modular?

Andrew WHITE: Yes, prefabricated, or with mass timber as well. My members have told me they can do it 20 or 30 per cent quicker. I would have to get you that detailed data, though.

David ETTERSHANK: That would be good.

Andrew WHITE: To your question, though, as well around the supply question: we are actively looking at other opportunities. One thing we are doing in the western part of Victoria is looking at how we can use our eucalypt hardwood trees to potentially create this kind of GLT or CLT engineered wood product that could be used for these structural beams. We have a feasibility study happening at the moment.

The CHAIR: We might get on to that in a minute. I am sure Ms Ermacora will get to it.

Andrew WHITE: Sorry.

The CHAIR: You mentioned the magic words ‘western Victoria’, but I will go to Ms Broad first.

Gaelle BROAD: Thank you very much, Andrew, for appearing today and for your submission. It is very informative, and I guess it just highlights how important timber is in the whole industry, because it certainly has so many different benefits. I guess I am just interested in – you touched on it earlier – the state government’s decision to close the sustainable native timber harvesting industry. I have visited timber mills and had people with multi generations that were in tears because of that decision and others that have lost major contracts with big building companies. What are you hearing from members about the impact of that decision?

Andrew WHITE: Thanks for your question. I started in this role two months ago only, and I have spent my first eight weeks in the role basically on the road visiting members. I have been around to plantations all around the state as far as the border in western Victoria through to north-eastern Victoria and Gippsland, and I have also visited a lot of the timber mills and spoken to pretty much every timber mill either in person or via telephone.

The impacts have been substantial. A lot of those mills are really scrounging for product to be able to continue their operations. Some do have plantations. However, those plantations will not reach, as we indicated, before – these trees take a long time to grow, particularly for the hardwood product. They need to be mature. Those trees will not reach maturity for another five or six years in some cases, so they will not have access to that resource, and in the meantime they will be looking to import that product either from interstate or from overseas or source product as a by-product from places like Melbourne Water et cetera where they might be having to remove trees for a particular purpose. Those trees can then be potentially harvested and turned into furniture or stairs or cladding or floorboards et cetera that those mills will utilise.

In speaking with my members in that segment of the industry, it has been an incredibly tough period. What has impressed me, I must say, is the innovation and ingenuity of the industry. A number of these mills are moving into other products, whether it is firewood, whether it is food service, with smoked wood products for the food service market, which obviously attract a premium, or whether it is these mass-laminated timber products and glue-laminated timber products. So it has had a substantial impact in terms of the decision in particular being brought forward. As I said, I prefer not to get into the politics of it, because it is a very emotional issue for our members, but suffice to say it has had a substantial impact on that hardwood supply.

We are looking, as I said, to do feasibility studies around the use of other tree varieties. We have eucalypt trees in the green triangle in the west, which are currently grown for export as woodchip, and there is an opportunity to develop those into an engineered wood product that would become structural beams et cetera. We currently have a project with what was formerly known as Warrnambool Timber, where they have been able to do a variety of testing to test this other type of tree, to test its structural integrity et cetera to see if we can use this other type of tree, which we do have on the ground. We do have substantial resource available, which would assist, to the other member’s question earlier, around the supply in the short term if we can get this off the ground, but it is going to take time.

Gaelle BROAD: Can I just ask you about plantation in Victoria?

Andrew WHITE: Yes.

Gaelle BROAD: What support does the government give? Do they plant many trees? What are some of the risks? Because I understand it is a high-risk industry too.

Andrew WHITE: Yes, it is a risk. Some of the biggest risks are with bushfires. I have been meeting with the chief fire officer and with the department about those issues and how industry plays a role in that.

Plantation-wise, the government has made a recent investment, as I mentioned, of \$120 million to a particular plantation company to grow the estate substantially over a period of time, which is positive. One of the issues we have, as I mentioned, is that we do not have a hardwood plantation estate that is usable – we do have some, but not enough – for housing and construction, and that, to be fair to the member's question, is an issue, which is why we are looking at these other feasibility studies to look at the other types of trees we can utilise for those glue-laminated products.

In terms of your question on risks, bushfires are probably the main risk facing our plantations, and there are obviously various mitigation measures in place and preventative measures, such as prescribed burning. We have our own forestry industry brigades all across Victoria, which we fund ourselves, which are volunteer brigades representing the companies themselves. We have our own tankers, we have our own slip-on units and we have our own helicopters even, which we contract from the government, to protect that asset. Obviously there is –

Gaelle BROAD: You have highlighted the need for smoke detectors, I think.

Andrew WHITE: Absolutely. We have fire-detection cameras currently in the green triangle region. Last season I believe they were able to detect 2100 instances of a fire starting for one reason or another which otherwise would not have been detected. These cameras use AI, and they can see about 20 kilometres in range, a 360 view. They are proving to be very effective so far in identifying fires and ensuring that we have a quick response time. We would like to see them expanded further. They are proving to be a very positive asset for the industry. Again, we have self-funded those cameras from industry in Victoria. In South Australia the government has funded those, so we are keen to see more support I guess for prevention, which is cheaper than obviously putting the fire out after it is too far along.

The CHAIR: Thanks very much, Mr White. Ms Ermacora.

Jacinta ERMACORA: Good morning. Thank you for coming along, and thanks for your submission. I am from western Victoria, and I have visited the Port of Portland and the three timber businesses there who are exporting woodchip – I have sat at the bottom of the woodchip pile. And I have visited Warrnambool Timber Industries as well; I have known for a long while what they have been doing. What is not to like? We have got two global challenges of housing and climate change, and your industry is leaning in and proposing a solution for both, which is terrific.

I want to say thank you for raising the issue of bipartisan policy – or a policy; we are in government, so a government policy. What would be in a government policy that is not there now? Obviously you are recommending a policy be developed – or a further policy be developed. What do you need that is not there now?

Andrew WHITE: Thanks for the question. I appreciate it. In terms of a policy that is not there now, we are not measuring the embodied carbon emissions at the moment, and New South Wales is looking to do that. So I think that is a useful data point to understand the lay of the land, if you like, in terms of where Victoria is sitting. We know that steel and concrete are still being used predominantly in the construction of a lot of these buildings. Even in residential houses there are opportunities to use more of these glue-laminated products. So without going into policy detail, we would like to see a policy that preferences or somehow incentivises the use of these timber products where possible. Notwithstanding there are some supply challenges, I believe and the industry believes, we can do a lot more. We cannot be the full solution to the issue, and we are not suggesting that we are the silver bullet, so to speak, but clearly the data shows we can be doing a lot more, and globally that is the way things are heading. So a policy that preferences the use of these timber products and provides incentives to – I suppose there are cultural issues as well at play in terms of things have been always done this way, and that will continue unless there is some kind of policy or intervention to incentivise a shift. Otherwise those market forces – we are not seeing that shift at the moment quickly enough, and whilst there are some companies that have the foresight to create buildings like the one I am in, in Collingwood, that is not the norm. So we do believe there is a need for a government policy to fast-track this shift, otherwise it will continue at a much slower pace.

Jacinta ERMACORA: So, Andrew, I think what I am hearing is there has been a lot of tilt towards getting rid of native forestry, and perhaps we need to now lean into an industry approach to plantation timber?

Andrew WHITE: Yes. Well, we have the largest asset for plantation timber, but it is the types of trees. There are multiple approaches. One is we need to get some more hardwood plantations in the ground so that in 25 years time we are not sitting around behind the eight ball. So that is one; that is more of a longer term approach – agreed – and I appreciate the other members' questions on that and acknowledge that.

Jacinta ERMACORA: So –

Andrew WHITE: The other approach is the innovation, so having the products to use what we have got now to fit in quicker. So the path we are going down is that innovation – sorry for interrupting – to be able to fast-track those solutions using the trees that we do have in the ground that are ready for harvesting now.

Jacinta ERMACORA: I believe from what I saw at the Port of Portland the plantations from which the woodchip came can be left in the ground for only a few more years and then actually achieve the strength required for that structural timber process, which is probably what you were meaning by four or five years, also that the plantations use marginal farming land rather than the fertile farming land. So it almost becomes you have got dairy farming, sheep farming, cropping and cattle, and you have also got trees as a form of farming. Do you see a future in value-adding in Victoria in terms of production of that structural wood?

Andrew WHITE: A hundred per cent we do, yes. I mean, that is where things are heading and that is where our industry is moving to. We are investing in that, so in our own organisation we are investing in it. We are looking to invest in the feasibility study to develop these products using these trees that have a lower rotation rate, so they are, as you said, grown for a lesser amount of years than the traditional native hardwood et cetera. So the research and the science, we are looking at that, and we are a fair way along. There is still a bit more work to be done to get to that point, but absolutely we do see it.

Jacinta ERMACORA: Excellent. If I can –

The CHAIR: All right. Your time is up, Ms Ermacora.

Jacinta ERMACORA: Sorry, just one more, if the committee can indulge me.

The CHAIR: Yes.

Jacinta ERMACORA: Just with the cameras, I am aware that the fire reduction camera work is a fantastic innovation and a private sector investment too, which is terrific. I believe that the state – DEECA – are also in that space. Would you include in a policy recommendation that the state develop a unified program or a single program for that once the science is in place, the evidence is in place to support it?

Andrew WHITE: A hundred per cent. I think there is a risk in having different systems. As I understand it, the department is looking to create its own system but is trialling this using I think the disaster ready federal funding for a number of cameras. We use an off-the-shelf solution, which is a subscription model, which essentially provides a cleaner solution. All of the infrastructure is already in place, so it is a cheaper option in the long term in that the companies that provide this service already have globally all of the infrastructure in place to manage the AI systems and manage the process that sits behind the actual cameras themselves – the alerts that you get to your phone to see there is a fire et cetera. So yes, our preference would be to use an off-the-shelf solution where possible, and that is something I am keen to obviously discuss with the department further and see where we land on that.

The CHAIR: Thanks, Ms Ermacora.

Jacinta ERMACORA: Thank you. Thank you for your indulgence, committee members.

The CHAIR: Thanks. Dr Mansfield.

Sarah MANSFIELD: Thank you. Thank you for appearing today. There is lots of interesting evidence in your submission and presentation. I am keen to just unpack a little bit more the arguments underpinning the first recommendation, which is incentivising the maximal use of timber to reduce embodied and operating carbon in the built ecosystem. I am just wondering what assumptions underpin some of those arguments, particularly when it comes to the carbon accounting that is used. What factors are included in that carbon accounting? For example, are you including forest carbon in that accounting?

Andrew WHITE: Yes, sure. Thank you for the question. My understanding in terms of the way that it is accounted for – and I am happy to provide some more background information – is the calculations are based on the carbon emissions associated with the construction. Essentially what we are saying is that wood and trees have a lower carbon footprint than steel and concrete, and I think that is widely acknowledged. There are obviously, in fairness, recycled versions of steel, for example, that you can use. Like I said, I am not suggesting that this is the silver bullet, but certainly when you look at the overall picture we are not where we need to be in terms of the proportion of buildings that are being constructed in this way. The proof case is now there in terms of this being done. This is starting to gain more prominence. It is cost-effective, it is time-effective and it is obviously friendly to the environment, but it needs to be scaled, obviously, to get that kind of scaling effect that you get with different industries, which can only bring the cost down even further. In terms of the carbon accounting per se, are you referring to the ACCU scheme in the carbon credit scheme or just the calculations themselves?

Sarah MANSFIELD: Just some of the figures, some of the calculations. So you are talking about, for example, the carbon footprint of a building potentially taking into account the embodied carbon. How does that compare then? Do you factor in the impact on the forest where that tree was removed from, whether it is a plantation or a native forest, the carbon that was stored in plants, the trees and other plants that are affected, soil? You know, that broader –

Andrew WHITE: Holistic view?

Sarah MANSFIELD: Yes, life cycle.

Andrew WHITE: Look, the short answer is I am not 100 per cent sure on the answer to that with these particular calculations I have provided, but I am more than happy to come back and provide information on what is included and what is not included so that you have got clarity around where that is sitting.

Sarah MANSFIELD: That would be helpful. Thank you. I think the other thing I am just seeking clarity on is that obviously a living tree will continue to draw down carbon throughout its life cycle whereas obviously once that tree is cut down whatever carbon it has got in it stays in it, but it is not drawing down or absorbing any more carbon once that is in a building.

Andrew WHITE: That is true, and that is why our approach with the plantations is to have a phased approach where we are continuously planting more and more trees so that we are sequestering more and more carbon. My understanding – and I am happy to provide some information on this as well – is that as the tree is actually growing it is sequestering more carbon than it otherwise would be if it had reached maturity. So there is actually a benefit from a plantation perspective in regrowing the trees over and over again, because you are sucking more carbon out as the tree is growing than, say, a mature tree. I do not have that information in front of me, but I am happy to provide some information. There have been some scientific studies that have shown there are benefits to obviously regrowing the tree.

Sarah MANSFIELD: Okay. Thank you.

Andrew WHITE: I appreciate your point as well, though, that once it is cut down –

Sarah MANSFIELD: Thank you. Just one last one. Obviously timber products are only going to be as climate friendly or environmentally friendly as the practices that are used to source those products. You are describing Victorian practices, but obviously if we are going to have a policy that significantly increases our demand for different timber products and we cannot meet all of those locally – and even if we are meeting them locally – how can we ensure that those practices are genuinely sustainable and that environmentally and climate friendly forestry practices are used to obtain the timber?

Andrew WHITE: That is definitely a concern that we share, in terms of particularly imported products, which is why we would prefer to have more plantations in the ground here and utilise them. With our growers, as I have been learning over the past eight weeks as I have been visiting them and meeting with their scientists, silviculture experts et cetera, as with growing any kind of crop, there is a lot of science that goes on behind the scenes in terms of how everything works with biodiversity, how everything works with our natural environment, the amount of land that is separated out for conservation use within the plantation estate et cetera. On the practices themselves in terms of the Australian growers that are our members, there are two certification

schemes. There is the PEFC certification scheme and the FSC certification scheme. A lot of our members are members of or certified by both schemes, and those schemes have a range of audited practices around a whole range of different categories across everything from production through to the supply chain et cetera. In all honesty I cannot say the same for internationally produced timber.

The CHAIR: I am conscious of time, so I might just go to Ms Lovell.

Wendy LOVELL: Thank you. I was really interested in you saying that in France it is mandated that they must have at least 50 per cent wood or natural products in their homes. Can you give us just a little bit of background as to the rationale behind that, please?

Andrew WHITE: It is a very good question. I might have to take that one on notice and provide some more information. I do not actually have that information to hand in terms of the specifics of that policy, but I am happy to provide that to you on notice, if that is okay, in terms of the reasons. I can assume the reasons are pretty clear from what I have outlined in terms of the benefits and where the trends are going globally. There are really a number of countries now that are looking to come to the forefront of this, and obviously with the Olympics being quite a notable event, I am assuming that they thought this would be a good opportunity to promote positive practices around environmentally sustainable buildings and so on and so forth. But the exact detail on that I would have to provide on notice, if that is okay.

Wendy LOVELL: Immediately post COVID there were a lot of particularly roof truss manufacturers who were screaming out because there was such a shortage of product for them to produce the trusses that were then in demand. I am not sure if that was a local supply issue or whether it was an import issue, but is there enough plantation timber to sustain our building industry now, or do we need to expand on our plantations?

Andrew WHITE: It is a complicated answer, unfortunately, because it is not a simple answer. The short answer is: the market changes and right at the moment there is too much timber in the warehouses and in the mills. There is a glut. Because the housing market has softened, there is more there. We would like to get it out the door, basically. That is not going to be the situation in the long term if you do the projections. To your question around the plantation estate, the answer is yes. I think it is something like 30 or 40 per cent, but please do not quote me; I can get you the exact figure. But the deficit over the longer term is clear – there will be a shortage in Victoria of plantation wood, so we do need to keep investing in our plantation estate. Even though that we are the biggest in Australia, the demand is such that, for houses, we will need a lot more, so we need to continue to be growing trees and investing in that sustainable resource in the longer term. At the moment the industry is feeling a bit of pain because of the housing market itself, and we are hoping that that will pick up and the product will start flowing again.

Wendy LOVELL: Is there any reluctance to invest in plantation timber, given that people might think that there is going to be change to government policy, regulation, legislation et cetera around the timber harvesting industry?

Andrew WHITE: Not in terms of plantations, not that I have seen. In fact the carbon credit scheme nationally is really driving a new wave of investment, to be honest, into plantation assets, so where once you might have been getting a return of let us say 6 per cent or something, the carbon credit scheme really gets you to that 8 per cent that makes it better than bank interest in terms of actually a return on your investment. So we are seeing a lot of international investment in plantations and a lot of domestic investment. Obviously, some of those are companies that are wanting to offset other emissions that they are making in other businesses, but ultimately the more trees we can get in the ground, the better for the environment, the better for industry and the better for meeting our housing targets, and we employ, I think, 17,000 people in Victoria as well.

Our industry is not perfect by any means – there are challenges – but from what I have seen in my two months, it is a very professional industry, not unlike any other farming industry. I have worked in the vegetable and horticulture sectors previously, growing veggies and carrots and stuff like that, and I think the tree industry essentially are growing a crop. They are doing everything in their power to maintain the land because they want to be able to grow another crop, another rotation, after that, so it is in their interests to look after the environment and to look after the land around them. And they are very conscious also of their social licence and the need to do things properly. I have been, I must say, really impressed going out and seeing the operations. The level of sophistication that goes into it is quite impressive. These are quite large companies that

have very professional systems in place. We are very lucky, I think, in Victoria that we do have that estate there, but we do need to continue to build it and capitalise on that opportunity.

The CHAIR: Thanks. Mr Berger.

John BERGER: Thank you, Chair. Thank you, Andrew, for your appearance this morning. I am interested in fleshing out a bit more about the cost. The cost I am talking about is the cost to the environment. In relation to building a residential house, your frame would typically be either pine or you would use steel. Whatever the consumer might want, there will be a cost–benefit one way or another. When you get into the higher stuff and you are talking about constructing a building when you use products like RSJ or RHS as opposed to your laminated timber products, what might the cost be for the environment in producing one or the other? Do you have any analysis of what the difference might be?

Andrew WHITE: In terms of the cost of production?

John BERGER: Production.

Andrew WHITE: To be honest, I do not have that data on the cost. I only have the data on the cost of construction, not the cost of producing that material itself.

John BERGER: My question is more around the cost to the environment, because I am thinking that once you are putting a laminated beam together there are glues, resins, all sorts of things – you know, heat temperatures that need to be achieved to put these timbers together – and it is the same with producing RSJ or RHS for structural stability or for the costs associated with putting both products together. Has there been a comparison of one against the other?

Andrew WHITE: I would have to come back to you on that. In terms of glues and resins – and my members are more downstream in terms of the construction industry; we are supplying into the construction industry, we are not the construction industry itself – there is a lot of research being done in terms of which products work better, which are more environmentally friendly, which are better for fire resistance. Our research and development corporation, Forest and Wood Products Australia, have done a lot of research on the design specifications around buildings, and in terms of climate resilience they have produced a number of guides including the resilient timber homes guide, which details in terms of the building code how buildings need to be designed.

It is one thing to say I guess that the wood is having less of an impact on the environment than steel, for example, but it is also around how you design the construction and the building itself – that is equally important. That is not our area of expertise at the Victorian Forest Products Association. To your question around the environmental impact and the cost of production, I would need to take that on notice, I am sorry.

John BERGER: No worries. Thanks, Chair.

The CHAIR: Thank you, Mr Berger. Mr White, thanks so much for coming in today. We really value the evidence you have given to the committee. A transcript of your evidence today will be provided to you shortly for review, and then following that we will publish it on the website.

With that the committee will take a short break to reset for the next witness.

Witness withdrew.