

# **PUBLIC ACCOUNTS AND ESTIMATES COMMITTEE**

## **Inquiry into the 2021–22 and 2022–23 Financial and Performance Outcomes**

Melbourne – Monday 20 November 2023

### **MEMBERS**

Sarah Connolly – Chair

Nicholas McGowan – Deputy Chair

Michael Galea

Mathew Hilakari

Lauren Kathage

Bev McArthur

Danny O’Brien

Ellen Sandell

Meng Heang Tak

**WITNESSES**

John Bradley, Secretary,

Matt Lowe, Deputy Secretary, Agriculture and Chief Executive, Agriculture Victoria,

Kelly Crosthwaite, Acting Deputy Secretary, Bushfire and Forest Services,

Kate Gavens, Chief Conservation Regulator,

Sam Quigley, Acting Chief Fire Officer,

Barney Bodroza, Acting Deputy Secretary, Corporate Services,

Allison Wetzels, Acting Chief Finance Officer,

Elizabeth Molyneux, Deputy Secretary, Energy,

Anh Mai, Executive Director, Offshore Wind Energy Victoria,

Alistair Parker, Chief Executive Officer, VicGrid,

Phuong Tram, Acting Deputy Secretary, Forestry Transition,

Carolyn Jackson, Deputy Secretary, Regions, Environment, Climate Action and First Peoples,

Matthew Jackson, Chief Executive Officer, Parks Victoria,

Lee Miezis, Chief Executive Officer, Environment Protection Authority,

Chris Webb, Acting Chief Executive Officer, Resources Victoria,

Linda Bibby, Acting Executive Director, Policy and Legislation, Resources Victoria,

Chris Miller, Interim Chief Executive Officer, State Electricity Commission Implementation Office,

Stan Krpan, Chief Executive Officer, Solar Victoria,

Andrew Fennessy, Acting Deputy Secretary, Water and Catchments, and

Deb Brown, Executive Director, Partnerships and Sector Performance, Department of Energy, Environment and Climate Action.

**The CHAIR:** I declare open this hearing of the Public Accounts and Estimates Committee. I ask that mobile telephones now be turned to silent.

On behalf of the Parliament the committee is conducting this Inquiry into the 2021–22 and 2022–23 Financial and Performance Outcomes. Its aim is to gauge what the government achieved in both financial years compared to what the government planned to achieve.

All evidence taken by this committee is protected by parliamentary privilege. Comments repeated outside this hearing may not be protected by this privilege.

As Chair I expect that committee members will be respectful towards witnesses, the Victorian community joining the hearing via the live stream today and other committee members.

Witnesses will be provided with a proof version of the transcript to check. Verified transcripts, presentations and handouts will be placed on the committee's website.

I welcome the Secretary of the Department of Energy, Environment and Climate Action, Mr John Bradley, and other officials. Secretary, I am going to invite you to make an opening statement or presentation of no more than 10 minutes and this will be followed by questions from the committee. Your time starts now.

### Visual presentation.

**John BRADLEY:** Thanks very much, and it is a real pleasure for me and my colleagues to be here. I want to begin by acknowledging we are on Wurundjeri country, and I want to pay my respects to the elders past and present of the Wurundjeri people and acknowledge that all the work we will talk about today has occurred on the country of First Nations people.

This is the first financial performance and outcomes for the new Department of Energy, Environment and Climate Action in 2022–23 and also to discuss the relevant areas of the predecessor departments in 2021–22.

DEECA works across the energy, water, climate action, environment, agriculture, forestry and resources portfolios seeking to promote thriving environments and communities and to unlock Victoria's enormous economic potential in a sustainable future. The dedicated staff of the department and portfolio entities work closely with First Nations people, with businesses and industry across the state and with community on some of the most significant economic opportunities, environmental objectives and community priorities. The department's work, as the committee knows, is very much at the front line of climate action, including cross-government coordination, progressing the energy transition, the circular economy, climate smart agriculture and mitigating the risks to biodiversity. But as we have seen in the last two financial years, there have been significant extreme weather challenges which have made the task more difficult.

In October 2022 of course we had one of our worst flood disasters on record, significantly impacting communities and in our portfolio more than 4800 kilometres of public land roads and about 210,000 hectares of public land. Our FFMVic crews contributed more than 15,000 shifts, AgVic coordinated over 28,000 calls to farmers and ran 342 recovery activities engaging 3238 farmers and there were 143 visitor sites made safe and reopened, with further asset repairs progressing. In addition to that, in that financial year of course they were also responding to the varroa mite response through Agriculture Victoria.

The previous year, 2021–22, saw the June and October 2021 storm and flood events. Our energy team worked with essential service providers as power was restored to 300,000 homes and 520,000 businesses, rolling out two relief packages, including the prolonged power outage payments program. While business conditions were positive for some in our \$20 billion agriculture sector – exports indeed had been up 29 per cent in 2021–22 in a record year for food and fibre – Agriculture Victoria also supported producers impacted by the June storms, including through the clean-up and restoration grants.

I will turn then to some of the key outcomes that were in focus across the last two years. Of course in May 2023 the government set a new 2035 target to reduce greenhouse gas emissions by 75 to 80 per cent below 2005 levels. The latest data shows that we are actually already at the 2025 target now within that 28 to 33 per cent reduction range, with our emissions having fallen to 32.3 per cent below 2005 levels. The third round of the power saving bonus program was delivered and received 1.84 million applications. The first 35 public electric vehicle chargers were funded.

If we turn then to healthy, resilient and biodiverse environments, we delivered grants to upgrade regional recycling infrastructure. We commenced work with our delivery partner on the BushBank program – the most ambitious habitat restoration program in Victoria's history, targeting 20,000 hectares of revegetation and restoration. We concluded the bushfire biodiversity response and recovery program, delivering approximately 1.5 billion hectares of herbivore, predator and weed control. In effective land management, we acquired 391 hectares of land for three new parks, and we delivered two rounds of the 2022–23 Coastcare Victoria community grants program, assisting 67 community-led projects.

If I turn then to the water portfolio, in that year we launched *Water is Life* to support partnership with traditional owners in that traditional owner access to water roadmap. We launched the *Central and Gippsland Regional Water Supply Strategy*, targeting the region's long-term water supplies to protect jobs, farms, ecosystems and communities, and we secured funding of \$5 million over two years for future flood mitigation activities. FFMVic, in its case, delivered a further 2155 kilometres of road upgrades to improve the strategic fire access road network. It delivered 28 ecological burns and also supported the delivery of 20 traditional owner burns and

carried out 76 identified priority burns. Reforms were also introduced to enable vets and registered animal shelters to directly reunite lost dogs and cats with their owners in a new initiative, and of course AgVic coordinated the Victorian government state emergency animal disease preparedness program to ensure an effective response can be mounted to an EAD outbreak.

I turn then to the 2021–22 year and areas in focus. In that year the department released Victoria's climate change adaptation action plans for 2022–2026, which set out current and future actions for seven key sectors. We released regional adaptation strategies in December 2021, and we were delighted to receive 21 voluntary council emission reduction pledges being made under the *Climate Change Act*. The circular economy waste reduction and recycling legislation was considered by Parliament in that year. We phased out single-use plastic items across the Victorian public sector from February 2022 and progressed the container deposit scheme request tender. We released 18 helmeted honeyeaters into the Yarra Ranges National Park in May 2022 and delivered biodiversity community programs, with almost 1000 grants delivering \$17.4 million to environmental volunteers.

In energy, more than 400,000 applications were received through that year's power saving bonus program, and the Victorian Big Battery completed its first season of safeguarding the state's energy supply through our hot summer months. The Energy Innovation Fund provided a total of \$37.9 million in funding to support the initial development of three offshore wind projects that could generate the equivalent of more than 40 per cent of Victoria's electricity consumption.

Turning then to land management, in May 2022 we released the *Marine and Coastal Strategy*, a five-year action plan for healthy marine and coastal environments to support sustainable use and improve how we manage the health of that marine and coastal environment. We also supported traditional owners in developing the *Victorian Traditional Owner Cultural Landscapes Strategy*, which now in this period, as we focus on Yoorrook and treaty, helps us to understand the priorities of First Nations people. The fuel management program treated almost 79,000 hectares, comprising both planned burns and mechanical treatments. We worked in partnership again with 10 traditional owner corporations to co-develop funding agreements to transfer power and resources to them as we implement cultural fire programs.

Turning then to safe and sustainable water resources, we assisted more than 1300 vulnerable and hardship households and more than 200 not-for-profit organisations in saving over 77 megalitres of water per year through the community rebate/retrofit programs. The department also supported the government's release of *Burndap Birrarung Burndap Umarkoo*, the Yarra strategic plan, which will support the protection of the health and amenity of those waterways, and also began work with the actions of the *Waterways of the West* and the *Rivers of the Barwon* action plans to tackle pollution and stormwater drainage.

We commenced in that year also in Agriculture Victoria the on-farm action plan pilot to support 250 farm businesses to measure and implement actions to reduce emissions and developed the first *Victorian Agriculture and Climate Change Statement*, a shared vision for agriculture's role in a net zero, climate-resilient economy. We supported farmers to reduce their energy costs and be more energy efficient and productive through the *Agricultural Energy Investment Plan*. We supported more than 1000 workers to enter the horticulture industry through the seasonal harvest sign-on bonus program. We also facilitated the arrival of 1630 Pacific workers. New minerals and exploration development in Victoria was in focus, with a quarterly record of \$64 million in mineral exploration expenditure occurring in December 2021's quarter.

With that, Chair, I might hand over to the committee. We really appreciate the opportunity to assist you with your discussion of the last two financial years' outcomes.

**The CHAIR:** Thank you, Secretary. I am going to go straight to Mr O'Brien.

**Danny O'BRIEN:** Thank you, Chair. Good afternoon, Secretary and team. Secretary, can I start directly with the department's work. Pages 178 and 179 of the questionnaire refer to the achievement of targets or otherwise, particularly for solar rebates. The application for solar hot water rebates achieved only 89 per cent of its target; the rebate payments for solar retailers processed within five business days hit only 61 per cent out of a target of 80 per cent; the applications for solar PV rebates for owner-occupied and rental households approved achieved only 59 per cent of its target; and the applications for solar PV rebates for small businesses approved

achieved only 29 per cent of its target – only 1474 out of a target of 5000. Why is the solar rollout underperforming so badly, and what are you doing to get it back on target?

**John BRADLEY:** Thanks very much. I will ask Mr Krpan to join us at the table, and he may be able to supplement the question. I just would recognise that while the program has been very successful in delivering significant priorities across the community – achieving its main objectives of saving \$1000 per home that takes up PV and \$650 per home in addition to that where they take up a battery, and achieving more than 2.37 million tonnes in emissions reductions since the program commenced – it has installed 1.7 gigawatts, or 1700 megawatts, the size of a very large power station, in Victoria's electricity system over that period of time. We do know from the research we receive from the participants in the program that 89 per cent of them have very strong degrees of customer satisfaction and that 60 per cent of them have indicated that they would not have acted to take up those new devices without the impact of the program. Certainly what we have seen is a national trend where there has been a decline in take-up, particularly during the pandemic and that period of economic uncertainty and economic headwinds that the general community have faced. There has been a downturn in take-up of solar PV panels over that period of time.

**Danny O'BRIEN:** That is part of it, Secretary. But part of it, as I mentioned, is things like payments being processed within the times. That is a departmental thing. Can I get an answer as to what you are doing to improve it?

**John BRADLEY:** I might ask Mr Krpan if he would like to talk to the payment processing time frames.

**Stan KRPAN:** Of course. The demand, just to clarify that first point, comes off two record years: 2020 and 2021 were both record years for solar PV take-up in Victoria and under the program. In terms of the payment processing time frames, they were predominantly impacted by a couple of months period in 2022 as a result of the floods, where our contact centre in Morwell – we have got about 70 staff in Morwell; about 50 of them work in the GovHub there on the phones and processing applications – were processing payments and grants for the –

**Danny O'BRIEN:** There were no floods in Morwell in October 2022.

**Stan KRPAN:** Across Victoria. Our contact centre is in Morwell, and they were involved in processing those applications. Then the application process –

**Danny O'BRIEN:** Sorry, in processing flood applications?

**Stan KRPAN:** Yes, for flood grant applications.

**Danny O'BRIEN:** They were diverted?

**Stan KRPAN:** Yes, I am sorry if I was unclear.

**Danny O'BRIEN:** Right, okay.

**Stan KRPAN:** They work in Morwell. That was quickly restored. Before Christmas in that year our processing time frames were restored, but it did not impact on demand – just to be clear. There were a number of matters that impacted on demand in both of the years that you have referred to. One of them was supply chain constraints – supply chains predominantly coming out of the Asia-Pac region being impacted by COVID closures that slowly came onstream – and also we experienced some increase in prices, which impacted on customer demand. But by the end of 2022 customer demand was definitely starting to be restored, and indeed this year it is at record levels again.

**Danny O'BRIEN:** Okay. Do you expect you will actually achieve your targets, then, for 2023?

**Stan KRPAN:** For processing time frames? Absolutely.

**Danny O'BRIEN:** All the ones I have mentioned?

**Stan KRPAN:** It is a real priority, absolutely.

**Danny O'BRIEN:** Okay. Secretary, the government's *Gas Substitution Roadmap* was released in July last year. What work did the department do on the cost of the impacts of the *Gas Substitution Roadmap*, both the greenhouse gas emission calculations and the impact on the Victorian gas industry?

**John BRADLEY:** I might ask the Deputy Secretary to expand on this answer, but certainly through the course of the development of the *Gas Substitution Roadmap* the department engaged closely with a broad range of stakeholders, including with industry, with consumers and with property developers in relation to their intent. That was informing the overall analysis that went into the *Gas Substitution Roadmap*, which confirmed that, in terms of the price pressure on households and businesses being caused by the increased cost of gas and also the emission consequences of continuing to pursue the use of a fossil fuel, there was a need for Victoria to reduce its reliance on gas, particularly in a constrained supply environment.

**Danny O'BRIEN:** Were there consultancies and reports produced external to the government to inform this map?

**John BRADLEY:** We have a fairly significant in-house capability in the energy group that is led by Ms Molyneux, and she might want to speak about the analysis that her team did, but certainly the analysis was confirming that we knew that there would be a significant savings benefit for households if we progressed those reforms included in the *Gas Substitution Roadmap*. We know that a household now, a new all-electric home that connects to an electric solution instead of a dual-fuel solution, will not only save money in the first year but also reduce emissions outcomes in terms of the impact.

**Danny O'BRIEN:** The modelling that underpins that claim about savings for households, is that publicly available?

**John BRADLEY:** We have continued to release updates on that. I will just see with the Deputy Secretary whether or not we have got any of those analyses in the public domain.

**Elizabeth MOLYNEUX:** Thank you very much, Secretary. Thank you for that question. There is a fair amount of information in the public domain. We did undertake some modelling, and we have got some fact sheets that we continue to update which are on the DEECA website which relate to the emissions of a household, which would be an all-electric home. It would be something like 16 per cent lower emissions than a new dual-fuel home – that is if it is built today – and that increases to 29 per cent lower emissions –

**Danny O'BRIEN:** Sorry, Deputy Secretary, I am limited for time. I just really want to know about the modelling behind all that. So there are fact sheets on the website. Can the department have a look for any reports that might have been commissioned, either internally or externally, and if available, can they be made available to the committee?

**John BRADLEY:** We are happy to take that on notice.

**Danny O'BRIEN:** Okay. Thank you. Given that 4 per cent of domestic electricity appliances are manufactured in Australia but 50 per cent of domestic gas appliances are manufactured in Australia, what is the likely impact of the *Gas Substitution Roadmap* on jobs, particularly in Victoria? As part of that extensive consultation you mentioned, Secretary, did you actually speak to the gas manufacturers and electricity manufacturers?

**John BRADLEY:** Well, it is fair to say that we are contact with the sector about these issues. The energy transition is something which is occupying the entirety of the industry, including all parts of the supply chain, and we are seeing supply chain pressures across new energy technologies but also across existing manufacturers and the manufacturing base. We have tried to make sure that as we progress the reform the government is seeking to ensure renewable energy alternatives are available, not only to support households but also to support the businesses and industries that can take up economic opportunities through the transition. Victorian manufacturers are benefiting from nearly \$20 million provided in the 2022–23 budget to invest in renewable energy and low-carbon component manufacturing to help their workers transition into highly skilled, digital jobs. Mr Krpan and Solar Victoria have been working proactively with the Plumbing Industry Climate Action Centre to deliver solar hot water and heat pump training to 200 plumbers to help meet the expected demand for installations and will look to train an additional 1000 plumbers in 2024. Solar Victoria has actually implemented an \$11 million training and workforce program that has been offering free training to learn to

design and install PV and batteries, and it is introducing initiatives to support builders in the transition to all-electric and 7-star homes, with \$1 million of funding being allocated to develop new construction industry specific training.

**Danny O'BRIEN:** Can I just ask, going back to the question, though: did you consult the manufacturers here, and if so, who were they or the organisation that you were discussing with?

**John BRADLEY:** It is fair to say we have had engagement with the sector over an extended period of time about the work of the government in relation to energy policy in the energy transition and in relation to the *Gas Substitution Roadmap*. I will just see if the Deputy Secretary has got any specifics in relation to the consultation on this program.

**Elizabeth MOLYNEUX:** As you said, Secretary, we do consult with different companies, and many of these appliance manufacturers do manufacture electrical appliances as well, so as we do move towards electrification of households with support for reskilling different sectors of the supply chain those manufacturers will hopefully take advantage of those programs and reskill their workforce in order to apply their skills to the electrical appliances that will be needed for electrification. We have an ongoing dialogue, and we are consulting with local industry, including gas manufacturers, to manage and work out what consumer impacts and support they could take advantage of in this transition to the clean energy economy.

**Danny O'BRIEN:** Okay. Can I move on to the SEC. The questionnaire, Secretary, refers to \$11.1 million in a Treasurer's advance going to the SEC. There is also in the budget paper this year \$20.5 million for 2022–23. I assume that \$11 million is part of that \$20.5 million.

**John BRADLEY:** I might just ask the CEO of the Implementation Office to join me at the table if he can.

**Danny O'BRIEN:** While he is doing that, the \$11 million that was allocated as a Treasurer's advance last year, does that form part of the \$1 billion allocated to the SEC?

**John BRADLEY:** No, that funding is additional.

**Danny O'BRIEN:** It is in addition to the billion.

**John BRADLEY:** Yes.

**Danny O'BRIEN:** Okay. So the question was about this \$20.5 million in 2022–23. In this year's budget, does the \$11.1 million Treasurer's advance make up part of that \$20 million?

**Chris MILLER:** Thanks, Mr O'Brien. Just to build on the Secretary's response earlier, the money that has been allocated for implementation is separate from the \$1 billion that has been allocated to the SEC.

**Danny O'BRIEN:** Yes, got that.

**Chris MILLER:** That was committed in the 2023–24 budget. As you say, there was an allocation through a Treasurer's advance of \$11.5 million for the 2022–23 year, and that is actually reflected in the 2023–24 budget as an allocation of \$20.5 million.

**Danny O'BRIEN:** Right, so the \$11 million is part of that \$20.5 million.

**Chris MILLER:** Yes, that is right.

**Danny O'BRIEN:** Okay. The note in the questionnaire says that that money was, among other things, used for engaging traditional owners. How much was spent engaging traditional owners?

**Chris MILLER:** Thanks for the question, Mr O'Brien. We have certainly spent quite a bit of time engaging with traditional owners. All 11 traditional owners corporations have been engaged over the course of last financial year and this financial year. The outcomes of that are reflected actually in the SEC's strategic plan, which talks in the introduction about the relationship principles and, post following building our relationships with traditional owners. I would just have to take on notice, Mr O'Brien, exactly what the costs associated with that engagement were.

**Danny O'BRIEN:** Okay, that would be great. Thank you. While I am on energy, can I ask, on page 45 of the questionnaire there is a \$4.3 million Treasurer's advance:

... to support a large energy user according to the conditions defined in the support agreement.

Can anyone tell me who the large energy user is and what that was for?

**John BRADLEY:** Sorry, could you just give me –

**Danny O'BRIEN:** I am going to hazard a guess it was Alcoa at Portland.

**John BRADLEY:** I would like to check and take it on notice if I could, Mr O'Brien.

**Danny O'BRIEN:** Okay. Do you know if you will be able to tell us what it is? We often get 'I'll take it on notice' and then get told it is commercial-in-confidence.

**John BRADLEY:** To be honest with you, as you are suggesting, I think there will be commercial-in-confidence aspects of that agreement, as was communicated at the time and very much in the interests of Alcoa in relation to that agreement. But the better thing for me to do is to take that item on notice and just be specific about which party it relates to, and we will advise what we can on that.

**Danny O'BRIEN:** Okay. Can I continue with the SEC, perhaps, Mr Miller. How much of the money allocated to the SEC so far has been spent on SEC branding and products – things like mugs, tote bags, caps, jelly beans and the like?

**Chris MILLER:** Mr O'Brien, I do not have those details right in front of me, so I can take that on notice.

**Danny O'BRIEN:** Okay. Thank you. The SEC strategic plan, which you have alluded to already, states:

The SEC complies with the Victorian Government's competitive neutrality policy, which requires us to ensure we compete fairly in the market.

This is a question, really, that I tried to address in the estimates hearings. But that being the case, how does the SEC or how does the government being involved in the market actually have any impact on prices?

**Chris MILLER:** Thanks, Mr O'Brien. I am happy to elaborate on that. The starting point is that the competitive neutrality policy, which is published, is applicable to the SEC, and it is applicable because the SEC is a government-owned enterprise that is competing with private businesses in contestable markets. It squarely captures the SEC. It is actually very commonplace across Australia for –

**Danny O'BRIEN:** Do not get me wrong, I have no issue with the competitive neutrality policy. The question is: how does the SEC actually deliver cheaper prices if it is not using the government – whether it is cheaper borrowing rates or anything like that – to actually drive prices down?

**Chris MILLER:** Thanks, Mr O'Brien. I was coming to that. The reason I referenced the other entities that are also bound by various incarnations of the competitive neutrality policy is if you think about the Queensland energy company's CleanCo, for example, they are all bound by competitive neutrality policy. They are all seeking to do things that go beyond perhaps what a pure commercial market participant might be doing, which is exactly the same for the SEC. You might have seen in the SEC strategic plan that we have a number of guiding principles, one being enabling the market, another being public purpose and another pursuing sustainable return. So we absolutely will be pursuing commercial returns for our investments. It is a question of perspective, though, as we approach our investments. The context in which I think the SEC can be quite significant and helpful to the energy transition is that the scale of the task is huge. We need something like 25 gigawatts of new generation and new storage capacity between now –

**Danny O'BRIEN:** Yes. But we heard in estimates and we know that the SEC is going to do 4.5 gigawatts, so it is less than 20 per cent of what is at needed in Victoria. How does that impact the price at all? That is just at the wholesale end; it is not even at the retail side.

**Chris MILLER:** I think there are a couple of really important things the SEC can do within the context of those targets. Coming to the context, the speed of investment has been slowing in the last 12 to 24 months. There is lots of public commentary about that. The market operators talked about that; the Clean Energy



Council has talked about that. One of the reasons for that is that the investment signals that are required to bring on new investment can move around quite a bit. In particular for one of the asset classes that we know is critical for the transition, storage assets are critical as we move to a 95 per cent renewables-based system to smooth out the peaks and ensure we have got the capacity available to supplement variable generation. At the moment there are some investors that are investing in storage, but they are not the majority of investors. The SEC, I believe, has a role in making investment decisions to bring on those critical assets in the context of current investments.

**Danny O'BRIEN:** Okay. We went into that last time. Can I just ask on that investing, whether it is in batteries or storage or otherwise: will the SEC actually employ the workers on the projects in any of those projects?

**Chris MILLER:** Mr O'Brien, it will be a combination of arrangements. The SEC, as I think we did cover at estimates, is building up its staffing profile. We are in the market at the moment for a number of roles that will be recruited to the entity that has been established, but so too will we be partnering with co-investors and suppliers to deliver projects. So it will be a combination.

**Danny O'BRIEN:** Yes. I get that, and that is the nub of the question: will the SEC simply be an investor, or will it actually employ staff on some of these production projects?

**Chris MILLER:** Right now –

**Danny O'BRIEN:** If the answer is 'We don't know yet,' that is fine.

**Chris MILLER:** It genuinely will be a combination of staff that are working directly with the SEC, potentially developing the projects over time, and staff that are employed indirectly through its partner entities.

**Danny O'BRIEN:** Okay. The strategic plan also talks about how the SEC is:

... to begin servicing Victorian Government energy requirements from 2025.

Will Victorian government entities be forced to purchase from the SEC for their energy needs?

**Chris MILLER:** Thanks, Mr O'Brien. The arrangements and the commitment that are outlined in the plan really is a policy commitment by government to ensure that the SEC has a significant foundational customer and can build significant scale. We think that is essential for the SEC to be delivering on the many benefits that are outlined in the plan.

**Danny O'BRIEN:** So yes – yes is the answer.

**Chris MILLER:** I would characterise it as a policy commitment, Mr O'Brien.

**Danny O'BRIEN:** Yes. But government agencies, hospitals and the like, will be required to purchase SEC electricity. Is that right?

**Chris MILLER:** The reason I am hesitating, Mr O'Brien, is that through the process to this point there is no issue of mandate. It is a policy commitment that has been made.

**Danny O'BRIEN:** Righto. Given that is the case and the SEC is going to be on wholly renewable power, what work has the SEC or the department done to ensure that there is security of supply, particularly to places like hospitals?

**John BRADLEY:** Look, the first thing I might add is that there is already a significant amount of government coordination of purchasing for electricity that does occur. Certainly the government has embraced the opportunity in the SEC to actually use the might of the government's purchasing power in the electricity market across the customer base to try and not only achieve the lowest cost outcomes but also some of the acceleration of the energy transition.

**The CHAIR:** Thank you, Secretary. We are going to go to Mr Galea.

**Michael GALEA:** Thank you, Chair. Thank you, Secretary and officials, for joining us here today. Secretary, I note that the departmental objectives as laid out in both the 2021–22 budget and the 2022–23 budget outlined the department’s ambition for net zero emissions of course but also a climate-ready economy, and that is budget paper 3, pages 171 and 165 respectively. But also what I am particularly interested about is a sustainable water future for our state, and that is the same budget paper 3, pages 173 and 167 respectively. This morning and with Mr O’Brien’s questions before we have been talking about recent flood events, but we are already now at a phase where we are going to an El Niño declaration that we have already had just in the last month or so despite being in a La Niña for the last several years and obviously these flood events too. We are now going into what looks to be a much drier cycle, and of course you will remember just what that looked like with the millennium drought. I know my communities, places like Upper Beaconsfield that went through that horrific fire tragedy 40 years ago, are nervously watching what is going to happen as well. But fundamentally in terms of our long-term water sustainability and having enough water for people, whether it is in their homes, in their businesses or on their farms, what is DEECA’s plan to ensure the long-term sustainability of Victoria’s water resources, both broadly through a departmental level and also through your water and catchments group specifically?

**John BRADLEY:** Yes. Thanks very much for that question. Even though our dams are currently at about 95 per cent full, the undeniable trend in a drying climate is driving the need to make sure that we do have a very integrated and secure water supply strategy to deal with the needs of Victoria right across all of our regions. We have taken an approach to water security that takes into account the very diverse needs of water users, including agricultural users across some parts of our state, very dependent on the conversations occurring in relation to the Murray–Darling Basin but then also the Central and Gippsland regional water supply strategy work that we have done working so closely with really diverse stakeholders. Mr Fennessy might give you the broad overview of that strategy and how it is securing water for Victorians.

**Andrew FENNESSY:** Okay. Thanks very much for the question, Mr Galea. John was right there and you were right in respect to we have seen significant wet years over the last three years. We have seen a La Niña period over those three years. At the end of the 2023 period or the 2023 financial year, in September 2023, our dams were at 93 per cent full. That is actually 9 per cent higher than they were the year before. But from Victoria’s experience we do actually know that we cannot be complacent in respect to the level of our storages. As was recently announced by the BOM, we are heading into an El Niño period and a positive Indian Ocean Dipole, which essentially means that the Indian Ocean is warmer in the west than it is actually in the east. That boils down to we are likely to see less rainfall over the next sort of year or so.

We also know that the stream flow run-offs between 1997 and 2022 have actually reduced by 28 per cent over that period of time as well, so all of this points to the fact that – knowing that we have lived through this experience before through the millennium drought, where we did experience 20 per cent reductions in our dams – in any one particular year we know that we need to be on point in respect to managing our water resources. That is why even though over this wetter period over the last three years, and the two years in particular we are talking about, we have been focusing still on water efficiency programs and how we can continue to save water within our storages, because the water saved in our storages is always going to be the cheapest and most efficient way to actually do that. As was mentioned, one of the things we did do here was around the Central and Gippsland region strategy that we put in place, which did identify over the sort of next 50 years what strategies could be put in place.

If I just run through a number of areas across the different demographics there as well for the regional sector, and a couple of programs that we have been running, recently \$11 million was invested in that program over the two years we are talking about in this particular hearing. One of a number of initiatives that were put in place was the Target 150 program. People would be familiar with this; this was previously targeting the 155 litres per person per day amount. We are now actually targeting 150. That is down from 161, or currently sitting at 161 litres, where we are at the moment, which will lead to around 21 gegalitres of water saved over that period of time. We have other programs like the schools water efficiency program, where we go and do audits in schools, making sure they are as efficient as possible and reducing any leaks. Another program, as was touched on by the Secretary in his opening address, was where there are vulnerable and hardship customers who do seek access, they can have access to water efficiency appliances, and over that period of time, over 3200 appliances were actually delivered under that particular program.

For businesses we do have an efficiency program as well. It was recently announced \$5.27 million for water efficiency in businesses, and that includes things like auditing and looking for leaks within businesses, to drive that sector as well. And importantly within our rural water sector, we continue to look to save water in there, so we look at that through our system efficiency programs, such as within our irrigation districts, where we look at efficiency, stop leakages within the system and upgrade those systems. That also allows an increased level of service at the farm gate to allow farmers to be able to upgrade their systems to be more efficient there as well. Whilst we are on the rural water sector, we have invested in recycled water schemes, such as the Western Irrigation Network, that allow water to be used back onto land that otherwise might have been discharged.

In respect to looking at things like our recycled water and our stormwater re-use, there was \$14.6 million over this particular period in which there were 50 integrated water management projects put in place, which include stormwater harvesting and recycled water schemes, and on the larger scale there we have implemented programs such as the Dingley recycled water scheme, which will deliver around 1800 megalitres to 48 properties within the south-east. So that is just a number of the initiatives that have been undertaken over the period that we have in question here for PAEC today and how we are looking to save water in our system.

**Michael GALEA:** Thank you, Mr Fennessy, and Secretary as well. The Dingley recycled water scheme is of particular interest to my colleague Meng Heang Tak and me, both looking after that area as well. I was actually going to pick up on a few things. You actually did touch on a couple of them already, but the *Central and Gippsland Region Sustainable Water Strategy* – I know that has done a few projects, and a few others in fact in the south-east too. For example, earlier this year I was able to join the minister in officially opening the Monterey recycled water scheme in Frankston North, which is a great scheme to provide all the sportsgrounds in that suburb with recycled water, which is obviously fantastic for the environment, fantastic for sustainability and for reducing the demand as our population grows, especially in the south-east, and also in reducing the financial burden on those sports clubs and local councils to actually have to fund ongoing mains water usage. I note you mentioned of course the Dingley scheme, which is also underway at the moment. So for these sorts of integrated water management projects, especially including ones such as recycled water, what other projects are in the pipeline? How does the department plan to continue to deliver and look at opportunities, and what aspects and criteria do you use to see what will make a good project in this scheme?

**Andrew FENNESSY:** Thank you very much for that. As I did say, there was funding for over 50 programs within that integrated water management system. Just bear with me a moment, and I can talk about some of the types of programs in that particular space. Apologies. I will just be one moment.

Thank you. Some of the other programs that we are looking at within there are a feasibility study for water-based businesses in the upper Ovens region and undertaking that, a scoping and prefeasibility study for the cultural landscape management of lakes and, in Horsham, integrated water supply connections to properties. There are quite a number of different ones we do have within our integrated water management, and there is a full list of around 50 programs that we can look at.

**Michael GALEA:** Terrific, terrific. Thank you. You have both mentioned that obviously dams are quite full the moment. In fact they have been at very close to capacity for some time now. We are already starting to experience that drier weather. How much of a lag will there be until it starts to affect our catchments?

**Andrew FENNESSY:** We are not expecting any restrictions across this particular year. What I did say is that we do see, and did see during the millennium drought, drops of around 20 per cent in any one particular year. What we did see around 2006 with the millennium drought was a continuation and a number of years in a row like that. If we do see those drops of 20 per cent, we could be looking at two to three years before we are looking at restrictions in that space.

**Michael GALEA:** Interesting. Thank you. You also mentioned the Schools Water Efficiency Program. It is in the budget papers, but I will not need to reference it because you did already mention it in your answer. I note that the number of schools that were signing up to it was impacted by the COVID settings we had a couple of years ago. Can you give us an update as to how that program is now progressing?

**Andrew FENNESSY:** Yes. You are right. The program was impacted by COVID. We did go close to actually meeting our targets. It is one of the BP3 measures that we do have in place. We did get very close to

that, and we do continue to look to ramp that up over a period of time. As we have started coming out of the COVID period, we have looked to start to do that. I will just try to find my figures here as well.

**John BRADLEY:** I think I can help you there, Deputy Secretary.

**Andrew FENNESSY:** Thanks.

**John BRADLEY:** In terms of the performance in that financial year in question, 2022–23, the target was 1550 schools participating and the actual number was 1385 schools participating. That is of course an 11 per cent underperformance, and that reflected, as Andrew was saying, school registrations being impacted by some residual COVID-19 impacts in the education sector, reducing engagement opportunities and therefore our ability to bring schools into the program over the last three years. But there are a range of things being done to try and increase the focus and rebuild that participation of schools with a focus on achieving that four-year target of 1800 schools by June 2024, as set out in the original plan. The target for 2023–24 is probably out of scope, so I will not dwell on it. But it has been increased to 1800 to reflect the recruitment activity we have undertaken in the previous financial year across water corporations. It is, as you have mentioned, an action out of the *Central and Gippsland Region Sustainable Water Strategy* to try to register 80 per cent of public schools to participate in the Schools Water Efficiency Program or a similar program by 2030.

**Michael GALEA:** Thank you. What sort of feedback have you had from those schools that have taken up the program, particularly those that took up the program in the two financial years that we are looking at in today's hearings? What has the response been from those schools about how it has affected and improved their school?

**Andrew FENNESSY:** Yes. It has been extremely well received, and that is on two fronts. There is obviously the side where water savings have been coming out of that program, so that is good for the schools and the environment – they actually make those savings – and also for the financials in regard to looking to reduce costs. But the program, as you may be familiar, also does involve the kids within that program. It does two things: it is really looking to save water onsite in respect to any leaks or inefficient appliances, but it is also educating the next generation that is coming through. The feedback on the program is that it has been really well received.

**Michael GALEA:** Okay. Thank you. And going broader again, you mentioned some of the water efficiency programs, especially for businesses and the like. Can I ask you to expand on what that other program looks like? Businesses in general of course but also in particular for agricultural producers.

**Andrew FENNESSY:** Yes. For the businesses, as I mentioned, it is more tailored around audit programs. They can seek an audit of the business to look at where they are best able to save water. It is similar in some ways to what we are looking at with the schools program as well in how to drive savings there. Some of that might entail just checking to see if there are any leaks in the property, whether that be a checking the meter overnight type of an approach. It could also be: are they being as efficient as possible with their cooling systems on the sites there? It can go across all manner of things. It is just within the businesses that there is a broader scope there than just taps and toilets, so it is how it is actually used within production, and over the years other things have been looked at within cooling towers in that space.

In regard to the rural strategy, or the irrigation space as well, as I did mention, there has been a lot of work done within savings within the irrigation districts themselves. We have seen a lot of water that is actually lost through transmission through leakage in channels. Some of these channels have been in place now for the last hundred years or so where they have been pushed up. The water does leak back into the environment. It does leak back into the environment when the environment is not actually looking for that water, so that can have impacts on raising the watertables and so forth. There are the efficiencies in delivering those. But also what I did mention there is that it drives a lot of efficiencies within the rural sector itself, because what we have done now in modernising the systems is actually modernising them to the farm gate, so farmers are able to call water when they actually need it. They could be sitting here and be able to open up their gate and start watering. Instead of just opening up gates in the middle of the night and letting it run across paddocks, they can actually now connect up to a modernised system and also connect that up to their farm. They can connect that up to recognising whether there is no moisture within the soils – when that gets to a particular level, that will indicate to them that they need to start irrigation again. They can get onto their phone and if they like, they can open up

their system and they can start irrigating from that point of view. It also allows them to automate all of their irrigation and drippage and sprinkler systems and everything else like that. It is a lot more efficient than it was once previously where a farmer would have got up in the middle of the night and potentially pulled out a couple of boards to allow the flooding of the paddocks and then just got up in the morning and put those planks back in. That is what was done. There is a lot more science to doing it now, and the modernised systems allow them to actually do that.

**Michael GALEA:** Farming is definitely becoming a lot more high-tech than it once was and a lot of people imagine it to be, which is very good to see. Just staying on that for a moment, obviously the Murray–Darling Basin plan is a very big part of the national debate and probably will be again as we do lean into this El Niño period once again. We know that the state government has ruled out further water buybacks in the interest of protecting these regional communities and that Victoria has already been leading the pack amongst the states that cover the Murray–Darling Basin in the return flows to the environment. Specifically in relation to these two financial years that we are looking at, I am wondering if you have any comments on the Murray–Darling Basin in particular and how we are set up to support those communities in particular as we face tougher conditions.

**Andrew FENNESSY:** The Victorian government does still remain committed to the basin plan, and as you rightly said, there has been significant work that has actually been done around the basin plan. At this particular stage we have still delivered 820 gigalitres out of our 1075-gigalitre target. We have actually delivered all of our water resource plans that are required. We have delivered the largest modernisation project in Australia, which is the connections project, which is 433 gigalitres, of which 279 gigalitres went back to the environment. That finished during the period we are talking about for these two years, but we have undertaken other projects in this particular space as well. We are currently undertaking the Goulburn–Murray Water water efficiency project and also the Lower Murray Water water efficiency project, which are doing the same sort of things as I talked about before – how can we actually save water within the system where it is being distributed and it is just actually being lost, and how can we capture that to be more beneficial so that it is then either returned back to the environment or in some of the cases, with the connections project, back into consumptive use.

We have also been progressing a number of the other key projects. One is called the Victorian Murray Floodplain Restoration Project. That has been a big piece of work over the last couple of years within this particular portfolio. What that is looking to do is to return water back onto the flood plains and maintain and improve the biodiversity of those particular flood plains. A big component there is that, given that the system is so heavily regulated – the Murray–Darling Basin system – water cannot always get to where it is actually needed now. With projects such as the Victorian Murray Floodplain Restoration Project we are looking at putting works in place there to ensure that water can get back up onto those landscapes, hold the water there for as long as it is actually needed and provide other benefits to that particular landscape. We cannot do that in the fully regulated system that is currently there at the moment, and we certainly cannot do that without having some impacts to towns within the landscape as well. We are looking to still progress that project.

Other things that we are doing within this space include another project which we refer to as the constraints project, which is essentially looking to how we can move water throughout the system – it does it at low flow or minor flood levels – and how we can utilise the water that is actually being recovered through the projects that we are doing, such as the water efficiency projects, how can we return that back and reconnect the Murray system back into the flood plains there as well.

**Michael GALEA:** Yes. Thank you. And of course the more efficiently we use that water the more there is for both the environment and for communities and farms, which is so very important. Just very quickly with the time I have left – you can probably tell I could ask you questions about this all day – can I ask for the rough breakdown across the state geographically for those integrated water management projects that are underway? We talked about obviously the ones in Frankston North and Dingley that are close to my heart, and you mentioned Ovens Valley as well. In terms of across the state, is there a fairly even geographic spread?

**The CHAIR:** We will come back if we have time. I am going to go to Mrs McArthur.

**Bev McARTHUR:** Thank you, Chair. Secretary, just going back, following on from Mr O'Brien's question about the gas plan, has the department conducted any of its own modelling with respect to the job losses that will ensue because of the ban on gas in new homes?

**John BRADLEY:** I think, as we addressed that question with Mr O'Brien, the short answer is that the energy transition is a very complex and significant economy-wide activity that is occurring. What we have sought to do, through the investment of the government's measures in supporting the transition of our manufacturing sector into new energy technologies that are going to provide better outcomes for consumer bills and also for the environment, is to provide assistance to those industries participating currently in the supply chain to make that transition and embrace all of the job opportunities that are coming through that energy transition. We know that there is a significant opportunity for some of those manufacturers that Ms Molyneux was referring to earlier, that already supply in some cases both electric and gas appliances, to navigate through their business model into opportunities that are presented in the energy transition. If we going to achieve the kinds of levels of deep decarbonisation that the Australian Energy Market –

**Bev McARTHUR:** Just the job losses, Secretary.

**John BRADLEY:** Sorry, I was just going to say, if we are going to achieve the kind of deep levels of decarbonisation that the Australian Energy Market Operator is forecasting out to 2030, it relies on a lot of electrification occurring in homes and businesses, including moving to all-electric homes. So it is important that we are helping Victorian businesses to take advantage of what is an economic opportunity in the rate of installation that is going to occur.

**Bev McARTHUR:** So you cannot tell me how many job losses will ensue?

**John BRADLEY:** Well, Mrs McArthur, that will depend on how businesses reposition themselves as suppliers in this massive boom that is going to occur in household electrification installation. We are certainly doing everything we can, through the work of the department, through the grants that we referred to earlier that are being provided and through the training that is happening through Solar Victoria and other agencies, to try and assist those businesses to navigate their way into providing the services that are going to be in very high demand.

**Bev McARTHUR:** Okay. Secretary, in my electorate, in the town of Avoca a new household needed to be all-electric. The extra cost to connect the upgrade to the transformer was \$70,000 on about a \$300,000 two-bedroom house. How can even builders and home owners afford to have your all-electric plan? This particular consumer will actually have to go to bottled gas. What modelling have you done to show what costs are going to further ensue? If they cannot afford to go all-electric because you have got to upgrade the transformer, how are they going to afford the extra bottled gas?

**John BRADLEY:** I will be careful not to turn my mind to estimates and to the 2022–23 financial year. But if we just look at what we know about the framework that has been progressed, it is a framework that recognises existing planning approvals that are in place. I am not aware of any circumstances where individual customers are facing anything like that kind of scenario that you are talking about in relation to households.

**Bev McARTHUR:** It is because the power companies only have to supply a set amount of energy. To upgrade it to become all-electric, not even to accommodate for EVs, the home builder is going to have to pay extra to increase the ability of the transmission.

**John BRADLEY:** In terms of the planning reform that is occurring in relation to new homes being all-electric, we certainly see significant benefits for households in terms of the household bill outcomes that will be delivered for them across the economy. That specific circumstance – I am happy to have a look into it for you, but it does not sound immediately like it is being directly impacted by this change.

**Bev McARTHUR:** Well, it does. If you have to build all new houses electric, this is the cost that many people will endure, in the country especially.

**John BRADLEY:** The distribution systems undertake their regulatory investment proposals to meet the capacity of the distribution network. They put that before the Australian Energy Regulator in a regular five-year cycle, and that determines how the distribution network is developed to meet the requirements.

**Bev McARTHUR:** They only have to supply a set amount of energy. But to go to your plan of all-electric, the transformers do not have the capacity, so they will charge the builder or the home owner.

**John BRADLEY:** As I said, Mrs McArthur, I am happy to look at a specific case, but I am trying to respond I guess to the 2021–22 and 2022–23 outcomes.

**Bev McARTHUR:** Okay. Can you tell us what percentage of Victoria’s carbon emissions are generated by domestic gas use?

**John BRADLEY:** Thank you. The Deputy Secretary has got it right in front of her, so I will let Liz answer.

**Elizabeth MOLYNEUX:** Thank you, Secretary. The Victorian gas sector is responsible for about 17 per cent of Victoria’s net emissions.

**Bev McARTHUR:** Okay. Thank you, Deputy Secretary. Let us go to the VNI West proposal. Has the department consulted with traditional owner groups on VNI West?

**John BRADLEY:** Mr Parker, the CEO of VicGrid, is just joining us.

**Bev McARTHUR:** Oh, excellent.

**John BRADLEY:** The VNI West project is a project that is being advanced by the Australian Energy Market Operator, which is the transmission network service provider planner for Victoria. VicGrid is working very closely with AEMO as they progress their development of the VNI West program and certainly encouraging them to engage closely with a broad range of stakeholders, including to engage at the outset with First Nations people. Mr Parker, you might have more detail about the engagement that is occurring with traditional owners by the Australian Energy Market Operator in relation to VNI West.

**Alistair PARKER:** Yes, thank you, Mr Bradley. Thank you for the question, Mrs McArthur. Yes, we have been happy, as Mr Bradley observes, it is AEMO who is leading that work, but we have been happy to support them given the department’s relationships with traditional owners along the route. In fact later this week we will be assisting in a workshop with Djaara and making sure that we build a good relationship between AEMO and the traditional owners. We stand able to assist, but the primary responsibility sits with AEMO.

**Bev McARTHUR:** Well, communities I talk to along this project say that the consultation is basically zero. So have you got any evidence that the department has consulted with any communities or community groups about this project?

**Alistair PARKER:** Yes. I could provide written material on that. Certainly I would not try and pretend that communities are happy with the consultation that has happened, but we have had staff at a number of events and seen AEMO in particular try to explain the project and what is going there, so there have been widespread engagement and genuine attempts to answer the questions that people have.

**Bev McARTHUR:** Will you provide us with the findings? Has a report been prepared on your level of consultation?

**Alistair PARKER:** No, there is no report. Sorry if I gave that impression.

**Bev McARTHUR:** No reports. Okay.

**John BRADLEY:** Sorry, Mrs McArthur. I might be able to assist, though. The reason why AEMO is engaging with a range of stakeholders is that they will shortly progress the environmental effects statement, and as part of that, that consultation and that engagement would be a fundamental part of the input into the EES proposal and then of course the consultation that occurs as part of that planning system.

**Bev McARTHUR:** Have any contracts been signed in relation to VNI West?

**Alistair PARKER:** How do you mean? Sorry.

**Bev McARTHUR:** Well, contracts to progress the plan.

**Alistair PARKER:** There will not have been a substantial appointment of a proponent, no. But I am sure – and I am answering here for AEMO – they have engaged contractors and so on to help with community consultation, to engage with local communities and so on.

**Bev McARTHUR:** Have any contracts been signed in relation to land acquisition?

**Alistair PARKER:** No, they would not be at that point.

**Bev McARTHUR:** No. In relation to early works for VNI West and the strategy that this will unlock more renewables, has the department undertaken any work in relation to decommissioning or rehabilitation works or a rehabilitation bond scheme to manage the end of life of renewable projects?

**Alistair PARKER:** I am not aware of that – Liz may have more clue on the projects in particular – so not yet in terms of transition.

**John BRADLEY:** Not in relation to this project. It is obviously still in a developmental stage. The next step, just to sort of recap, will be for the Australian Energy Market Operator to then progress the planning work that is occurring at the moment. There would be a need for a proponent to be confirmed in that role and then for the EES process to proceed, and the individual project and its environmental impact would be assessed as part of that EES assessment.

**Bev McARTHUR:** Secretary, do you think the VNI West project will have any greater chance of progression than the Western Renewables Link project, which has basically no social licence?

**John BRADLEY:** We certainly want to make sure, and Mr Parker can talk to you about the reform that VicGrid is implementing through the Victorian transmission planning framework, which has seen the state government introduce a new, fundamentally different approach to progressing transmission in Victoria as VicGrid takes over responsibilities through that Victorian transmission plan. That will include an up-front strategic land use assessment and much more detailed engagement with First Nations people, with landholders directly but also with the benefit-sharing reform which is to come. What we are trying to do at the moment is make sure that those parties progressing projects, whether it is AusNet with its responsibilities for the Western Renewables Link or AEMO with its responsibilities for the VNI West program, are taking account of best practice, and we have also worked very closely with the Australian energy infrastructure commissioner Andrew Dyer, who meets regularly with those two parties, with the state's involvement, to make sure that better practice across Australia is informing the way AEMO progresses the VNI West project. It is a very important project as a backbone of the renewable energy transition that is occurring and is providing so much economic opportunity for Victoria, but it is really important that it is progressed in a way that is sympathetic and understanding of agriculture uses, of local industry and of local community priorities.

**Bev McARTHUR:** Just on that, Secretary, what economic and environmental studies have been undertaken by the department in relation to the loss of productive agricultural land in relation to transmission lines and renewable projects, including the economic impact?

**John BRADLEY:** Thanks very much for that question. Certainly as I said, you will see individual project assessments occurring, including through the EES process, which will come for the VNI West project, but one of the things that the department has done previously when it was the Department of Environment Land, Water and Planning, is to progress solar farm guidelines that help to take account of the development of solar farms that might impact the irrigation districts, which have been the subject of significant economic investment by government over a period of time. So we are seeking, as I said, not only to reform the Victorian transmission planning framework through the work of VicGrid and Mr Parker's team, and look at that comprehensive approach to the way transmission is developed, but also looking to deal with those intersections of the renewable energy transition and the implications it may have for agricultural production, of which one of our most significant assets is of course the Goulburn–Murray irrigation districts, and hence those solar farm guidelines that help to provide a stronger, more robust protection of that irrigation district.

**Bev McARTHUR:** Okay. Secretary, DEECA's *Offshore Wind Policy Directions Paper* has estimated that 70 per cent of Victoria's agricultural land will be required to meet your net zero emissions policy. What do you say to that department's directions paper?

**John BRADLEY:** Certainly one of the reasons why we are so confident about the important role that offshore wind will play is that it helps to establish very large sources of generation through offshore wind supply that can help to avoid some of the community interface that occurs with high levels of onshore



renewables. It is really important that the offshore wind sector also develops with a very close attention to its social licence, and you will see –

**Bev McARTHUR:** But it seems to have a problem with whales and fishing.

**John BRADLEY:** And there are environmental impacts that need to be very carefully managed in relation to the maritime areas and the offshore areas, and also our coastal regions that have such incredibly sensitive biodiverse environments, but we are developing the Offshore Wind Energy Victoria work program with this long-range plan to make sure that we can bring on those targets of 2 gigawatts in 2032, 4 gigawatts in 2035 and 9 gigawatts in 2040, which has the potential to provide such a significant supplement, because we can see offshore wind output occurring at levels that are much higher and more reliable than what you get from onshore wind and onshore solar. Capacity factors up in the range of around 50 per cent are common, and that, as we see the departure of increasingly unreliable and unpredictable coal-fired generation from the grid over the coming period of time, will help to provide important sources of reliable supply at scale coming into the system.

**Bev McARTHUR:** Has the department – just going to all these costs to people – assessed the economic impact on farmers who will no longer be able to conduct aerial spraying near transmission lines? That is particularly relevant to the potato farmers in the Western Renewables Link area of VNI West. You know, the requirements are 100-metre easements, and it is just not feasible to continue.

**John BRADLEY:** Mr Parker might want to supplement, but we have certainly been working very closely to try and make sure that it is very clear what adjustments can be made in relation to the safe operating practice around high-voltage transmission lines, and one of the things that is really important is that if there is an economic impact on that farm, that is fully reflected in the valuation and the compensation that is provided to a landholder in relation to the adjustment of the farm business. That compensation that is intended to reflect in full the costs on the business is in addition to that commitment to provide an additional payment of \$8000 per kilometre per year to producers, as well – as an additional benefit for hosting this important transmission capacity. Mr Parker, if there was anything you wanted to add to that in relation to the use of aerial spraying near powerlines, that would be –

**Alistair PARKER:** Yes. Thank you, John. We have also in the VTIF reforms – in the Victorian transmission investment framework reforms – outlined a process for what we have termed ‘strategic land use assessment’, and so that will look at the different impacts of transmission on different types of land, including farmland, and so will allow us to avoid areas that are less suitable for hosting this infrastructure. And then as Mr Bradley said, we will really understand what the impacts on particular farms and operations will be and then to the extent there is a harm, compensate for that. But the point here –

**Bev McARTHUR:** Mr Parker, can I just interrupt. There will be no amount of compensation that will compensate for the loss of amenity, the loss of productivity, with 80-metre-high transmission lines crisscrossing country Victoria. You do not have social licence for that. Have you considered the alternative proposals, instead of using 40-year-old technology with above-ground transmission, given that the offshore wind industry have said to us in various parliamentary inquiries that they will not use above-ground transmission because they have no social licence – it will all be underground once they bring it in onshore?

**Alistair PARKER:** Thank you. Yes, we have looked at the relative impacts and costs of underground and overhead. There are a number of farming practices that can coexist well with transmission lines. There is obviously a visual amenity impact and concern around that. I know that in the EES process that Mr Bradley referred to for Western Renewables Link, that will consider undergrounding as an option. AusNet have been obliged to give that, and also to think about areas within the route that would require undergrounding.

**Bev McARTHUR:** Only very small areas, though.

**Alistair PARKER:** Yes, and look, the –

**Bev McARTHUR:** Instead of going through the middle of a housing development?

**Alistair PARKER:** Yes. But the cost really is significantly more. Work that is –

**Bev McARTHUR:** Can you give us the work you have done on that, then?

**Alistair PARKER:** Well, I was going to quote work by other people –

**The CHAIR:** Apologies, Mrs McArthur. Your time is up. We are going to go to Mr Tak.

**Meng Heang TAK:** Thank you, Chair. Secretary, I refer to page 47 of the 2022–23 service delivery budget paper, number 3, on biosecurity. Can you outline the way in which the Department of Energy, Environment and Climate Action has worked over the past few years to strengthen the biosecurity of our agricultural assets?

**John BRADLEY:** Thanks very much for that question. The CEO of Agriculture Victoria Matt Lowe is with us, and I know he would love to talk about that.

**Matt LOWE:** Thanks so much for the question. I guess probably a key area that I would focus on in relation to biosecurity would be the work that we have done in the department to increase Victoria's preparedness for emergency animal disease. By way of context in relation to emergency animal disease, our preparedness was increased in response to an increased risk of emergency animal disease incursion into Australia since foot-and-mouth disease was detected in Indonesia in 2022, as was lumpy skin disease likewise detected in Indonesia in 2022, and as we know, African swine fever is present in Timor-Leste and Papua New Guinea.

In terms of why we would increase our preparedness and what the consequence is, an incursion of an emergency animal disease like foot-and-mouth disease into Australia would trigger an emergency response across Australia – the entire nation. It has trade implications. Essentially, as soon as a disease like foot-and-mouth disease is detected in Australia, all livestock products cease being traded. And because the disease moves so quickly, one of the first things that needs to be put in place if the disease is detected is a national livestock standstill. That happens across Australia, so if it is detected in Queensland, we still have to call a livestock standstill in Victoria as well. This is a significant logistics exercise and significant emergency management response. To deliver that just within Victoria we are looking at a surge workforce in the order of 5000 people over the first 12 weeks of such a response. We have done a lot of work to identify where that surge workforce would come from across the entire Victorian public service, particularly in the emergency management space, but also thinking about the private sector as well – private veterinarians, who would be a really important backbone of a response, as well as private contractors delivering things like demolition, building holes and those sorts of things as well.

Just to set it in context of why we would hit it so hard, a major foot-and-mouth disease event would be estimated to have direct economic losses in the order of \$80 billion over a 10-year period, and wider economic impacts beyond agriculture would occur as well. Social impacts at the individual, household and community levels are also likely to be significant. So that is, I guess, just the context. I will start to go to some of the key initiatives that we have delivered as part of our biosecurity preparedness for emergency animal disease.

We have implemented the Victorian government's investment of \$33 million in 2022–23 to establish a dedicated emergency animal disease preparedness program to strengthen the government's ability to mount a rapid, well-coordinated and appropriately resourced response to an emergency animal disease detection. Some of the examples – and I can go into quite a lot of detail here; there has been a tremendous amount of work that has been done. But obviously if the disease got into Australia, the last line of defence is really about intercepting the disease before it hits livestock, so on a farm, for example. So a really important focus for us was to ensure that we were helping farmers to prepare for and protect their property and animals from biosecurity threats by delivering an extensive EAD – that is emergency animal disease, the abbreviation – awareness and education campaign; a comprehensive industry engagement program, including the establishment of a livestock industry consultation group – it is incredibly important for us as we are developing these preparedness programs to test them with industry leaders; and field days, webinars and biosecurity planning workshops across the state. To date the program has delivered 233 emergency animal disease awareness events and other activities and promotions engaging 86,485 producers and 1526 stakeholders – an enormous amount of work.

It is probably important for us to think about how there are a range of different types of producers that operate in Victoria, including small-scale landholders, and getting information to them and engaging them is a bit of a different proposition to engaging, if you like, large-scale commercial farmers. So we have provided a dedicated landing page for small-scale landholders which has had 5879 visitors at an average of 93 visitors per day, so

that shows us that we are hitting the right market in terms of accessing and engaging with that cohort of farmers as well.

We have delivered biosecurity workshops in partnership with peak industry bodies to ensure plans are tailored to individual farms. To date we have done 161 workshops, and they have been delivered with 1231 biosecurity plans developed with farmers. That is a huge increase in the number of biosecurity management plans that exist on farm now. They are essentially the nuts and bolts of what a farmer is going to do to ensure that people come onto the farm clean, stay clean when they are on the farm and when they leave, they go clean as well, so not taking anything on or off a farm in terms of disease. We have enhanced our ability to track and monitor livestock movements across the state by installing real-time scanning technology at 26 priority saleyards and abattoir sites.

Now, if I turn to – and there are, I guess, parallels with COVID here – thinking about the laboratory analysis and the diagnostics that are needed to support a disease response as well. We have had funding that has ensured that Agriculture Victoria's laboratory capacity is ready to deal with increased sampling needs, while we have had investment in on-ground specialised equipment. So that means that our diagnostics can be rapidly mobilised and are able to deal with the highly contagious nature of an emergency animal disease. Some particular highlights are a mobile diagnostic van to support safe collection and preparation of samples from infected properties, portable yards so you can set up a small-scale containment and then 100 decontamination kits and purpose-built decontamination trailers as well that can be delivered during the response.

At a higher level obviously an emergency animal disease would not just be – while it would be led by DEECA through Agriculture Victoria, it would rely on the support of a range of other agencies across the Victorian government, so we established a whole of Victorian government emergency animal disease preparedness taskforce which developed a *Victorian Government State Emergency Animal Disease Response Plan*. That was delivered in 2022–23 as well.

Key additional focuses for the funding include boosting biosecurity technical and specialist expertise capability to increase our response capability. I have talked about the surge workforce, but then another thing that I think is really important and easily forgotten about is implementation of an emergency animal disease waste disposal strategy to address the waste that comes from mass destruction of susceptible animals. You need all the goods and equipment on hand should a disease outbreak occur, so we have invested heavily in ensuring that we have got the appropriate emergency animal disease goods, equipment and services procured for the response and operations in an EAD detection as well. And I mentioned before our enhanced research capability for early detection and surveillance.

**Meng Heang TAK:** Thank you very much. That is very thorough and detailed. You have already touched on a little bit in terms of when there is an outbreak. Can you talk more about that? What kind of system would be put in place to ensure that we can support farmers and animals in transportation should there be an outbreak?

**Matt LOWE:** Yes, fantastic. I guess, probably diving into if there was an outbreak and what are the types of things that we would think about should an outbreak occur, I mentioned that surge workforce but one of the first things that would happen would be that a national livestock standstill would occur. So that would occur at a national level, and that would happen via a technical committee that is set up of chief vets that would essentially make that call. It is probably just important to take a step back and just say, for the committee's benefit, that biosecurity exists in a national system. For any biosecurity incident, really it sits in a national system where decision-making happens at the national level and states and territories are subject to that national decision-making. A national livestock standstill would be put in place, and then at that point we have quite detailed plans that we have developed, the emergency animal disease response plan being, if you like, the peak of that for Victoria. There also exist national plans and policies that we operate under for an emergency animal disease outbreak as well. We have been working with the Commonwealth on national EAD policies to support a nationally consistent and agreed approach. Probably the two principal things that I would point to there are the foot-and-mouth disease and lumpy skin disease AUSVETPLANs. They have been reviewed and updated to ensure that they are current and agreed, if you like, across all jurisdictions.

In the case of a livestock standstill and then supporting the response going forward, some of the things that we have to get down in detail are who, if you like, mans the borders, and how do we think about the transport of livestock when they are in transit at the time that the standstill has occurred. We have ensured that we have got

across the state one agreed guidance and communication that can be provided as soon as that livestock standstill is called. It is quite detailed communication and guidance that would go out on social media, go out on mainstream media, and then also we would target directly industry associations, particularly industries like livestock transporters, for example, to ensure that that message is getting out there. We would be looking to ensure that there is quite clear guidance for livestock transporters, and it depends a bit on where that livestock transporter is as to whether we allow them to continue their journey to their point of destination and ensure that appropriate controls are in place when they get there or whether we turn them around or send them to a saleyard or something like that.

Just to give you a sense of how detailed we go, what happens with milk? How do we allow milk transport to occur in the case of (1) a livestock standstill and (2) an ongoing response? Our team has supported a national piece of work to ensure that there is really clear guidance associated with allowing milk transport to occur, because it is essential that you cannot leave a dairy storing milk for too long, so you need to be able to think about how we can continue to allow those movements to happen as well.

In terms of the workforce that would support that emergency response, it is really important that we have, if you like, the systems and processes for that surge workforce to come on board. So we have invested a lot in systems and processes to administer the mobilisation and welfare of a large-scale rapid-response workforce. If you think about the scale of such a response, the other thing that we have done is –

**Mathew HILAKARI:** Sorry to interrupt, but what sort of scale workforce are we talking about?

**Matt LOWE:** We are talking about in the order of 5000 people over a 12-week period to deploy. We have done a number of exercises, for example, to test how our response would go, and on each exercise we learn something additional about how we can improve as well. We test things like livestock standstill, we test things like our communications, we test things like our laboratory diagnostics and we test things like our whole-of-government arrangements and how they would be activated as well, so all of those various exercises have occurred over the course of this calendar year.

**Meng Heang TAK:** Thank you so much. I think the overseas disease link, foot-and-mouth – it sounds like very thorough work there. Talking about local, the red fire ants – what has Victoria done over previous years to stem the spread of red fire ants?

**Matt LOWE:** Red imported fire ants are a really important and significant, I guess, pest species. Again, going back to the fact that biosecurity is a national endeavour, just to set the context, red imported fire ants are a highly invasive and aggressive species. It has impacts on agriculture. It has impacts on social amenity, natural environment, human health and animal welfare, and it has certainly devastated both production and natural environments in places where it has established in other parts of the world.

RIFA, as we abbreviate it to, was first detected in Australia in Brisbane, and it has been the target of a nationally cost-shared eradication program since that time, since 2001. A 10-year plan with substantially increased levels of funding commenced in 2017, to which Victoria allocated \$4.79 million annually. Actual contributions for 2021–22 and 2022–23 were \$9.3 million and \$12.51 million respectively due to consecutive requests to bring forward contributions from future financial years. This is to essentially enhance the capacity of the response there in Queensland where RIFA has been detected. The program has made significant progress – the ants are largely eradicated from large parts of the western side of the infected area in Queensland. Nevertheless, it is evident that the objectives of the 10-year plan cannot be achieved within the agreed budget, so the program has continued in a revised form since the completion of a strategic review in August 2021, which was made public on 9 June 2023. The matter was considered at a recent agriculture ministers meeting and the need to continue eradication efforts was agreed and to maintain momentum under the response program.

Victoria has continued, on the request of Queensland, which is the combat jurisdiction, to ensure that we have brought forward funding that we have allocated to the 10-year eradication program on request. So that has been a key role that we have played. We have also leant technical expertise over the course of the 10-year plan to ensure that the combat jurisdiction, Queensland, is supported with the response.

**Meng Heang TAK:** Thank you.

**Mathew HILAKARI:** Do you mind if I just ask: what are we learning from that eradication program? Like, what are we taking away as a state about our own risks that come down the line?

**Matt LOWE:** It is a really good question. First of all, I think really good detection and surveillance is critical. It is not here in Victoria and we do not want it to get to Victoria, so from our perspective ensuring that we maintain really strong detection and surveillance programs and awareness. Essentially the best detection and surveillance is industry who are potentially going to be taking soil material or plants and organic matter from Queensland where it might end up in Victoria.

We have had a recent example which gives us a sense that the awareness and education that we have been doing in relation to RIFA around detection is working. On 23 February this year a wholesale nursery in Thomastown in Victoria reported suspect ants in a consignment of plants from a supplier in the Greater Brisbane area. A single RIFA queen ant was found, and this was confirmed on 27 February by DNA testing. So from a nursery detecting suspect ants, we were able to in three or four days by DNA testing determine it was a RIFA ant and ensure basically that it was eradicated.

**The CHAIR:** Thank you, Mr Lowe. I am just looking at the time. The committee is going to pause and take a short afternoon tea break of 10 minutes, if we can be back here ready to go at 3:15. I declare this hearing adjourned.

The committee will now resume its consideration of the Department of Energy, Environment and Climate Action. We are going to go to Mrs McArthur or Mr O'Brien for the next 21 minutes.

**Bev McARTHUR:** Thank you, Chair. I am going to Mr Bradley. The government, in its response to the Victorian Environmental Assessment Council Central West Investigation on 24 June 2021, committed to the establishment of three national parks in the regions of Mount Buangor and the Pyrenees and Wombat-Lerderderg national parks. Has the department begun work on these commitments?

**John BRADLEY:** Thanks for the question. I might ask Ms Jackson if she can speak to the detail of this, but certainly work has begun in terms of us preparing for some significant activities that are necessary to advance those national parks, including some surveying work.

**Carolyn JACKSON:** Thanks, Mr Bradley. Thanks, Ms McArthur. The Victorian government has committed \$4 million over four years to support the surveying and mapping work that is required to create the parks through legislation. This has enabled the recruitment of six dedicated resources within the Surveyor-General Victoria to undertake this work. In March 2022 the Surveyor-General Victoria commenced preparatory work on the park plans required to create these three national parks, two conservation parks and seven new and expanded regional parks through legislation. This work includes detailed land status checks, confirmation of road alignments, investigations of encroachments and identification of any freehold inliers. On-ground surveying and mapping to support the preparation of park plans commenced in the second quarter of 2023 and is anticipated to continue for the next three years. It is common for the preparation of these plans to create a national park to take 12 or more months depending on the location and size of the park and the complexity of the boundaries and boundary issues. That work has started and is underway, and once that is completed we will then be looking to introduce legislation into the Parliament.

**Bev McARTHUR:** Have you had any consultations with Indigenous groups or other groups on how you are going about all this?

**Carolyn JACKSON:** I do not have the specific details, but there has been consultation to date on the work that is underway.

**Bev McARTHUR:** Could you get us the specific details on notice?

**Carolyn JACKSON:** I am happy to take a question on notice.

**Bev McARTHUR:** Terrific. Recommendation 4 of that investigation, which the government has partially accepted, states that:

Upon government acceptance of VEAC's recommendations, relevant land is to be managed in accordance with those recommendations.

Has there been any management of the three proposed national parks, in line with this recommendation?

**Carolyn JACKSON:** I will need to take that on notice, Mrs McArthur.

**Bev McARTHUR:** The government provided an update on VEAC's Central West Investigation via the Forests and Reserves website in November 2022. It reaffirmed the government's commitment to create three national parks. Has the government done any work since that date? Has there been any change in the department work policy after the government tabled its response in June 2021?

**Carolyn JACKSON:** As I mentioned, Ms McArthur, the surveying work is underway. That is required to create those three national parks, and the legislation will then follow as a result. Certainly in the department we are doing work in parallel, but we are waiting for that surveyor-general work to be finalised.

**John BRADLEY:** And also, just to supplement if I could, Ms McArthur, there is progress towards implementing the response through of course the immediate cessation of commercial timber harvesting in Wellsford in addition to the Bendigo Regional Park and an embargo on the granting of new exploration licences in those parts of the proposed new national parks which are not currently covered by exploration licences. As Ms Jackson said, we have begun the engagement process with traditional owners whose country incorporates the proposed parks, and through the Victorian great outdoors package work is well underway now to upgrade recreational facilities in the central west parks, including upgrades at Ditchfield, the Glut, Richards, Mugwamp and Chinamans campgrounds in the Mount Cole area. Planning is underway or nearing completion for the Wombat four-wheel drive tour, Wombat walking trails and the Firth Park projects, with the commencement of on-ground works delayed pending the completion of some storm and flood recovery works required to restore access to those sites. So there is some work underway.

**Bev McARTHUR:** Okay. What is the funding stream, Ms Jackson, for the creation of these new parks? Does the department have an estimate on their cost?

**Carolyn JACKSON:** As I mentioned earlier, Ms McArthur, there has been \$4 million committed by the government to undertake some of the works, so there is that \$4 million allocation. In terms of the preparation of legislation, for example, that would just occur through existing resources with the team that I have.

**Bev McARTHUR:** And since the Secretary has mentioned Mount Cole, have any steps been taken to revoke the game sanctuary?

**Carolyn JACKSON:** I am not aware of that, Ms McArthur.

**Bev McARTHUR:** Does the Secretary know?

**John BRADLEY:** I am not aware, Ms McArthur. We are happy to take that on notice.

**Bev McARTHUR:** Good. Okay. Great. By the way, Ms Jackson, do you know how many brumbies have been shot in the High Country and at what cost?

**Carolyn JACKSON:** I am afraid I do not have that.

**Bev McARTHUR:** Can you take it on notice?

**John BRADLEY:** Ms Jackson, maybe we could ask Mr Jackson – the other Jackson. We have your friend Matthew Jackson with us, the CEO of Parks Victoria, and I am sure he can answer a few questions about brumbies.

**Bev McARTHUR:** I thought there was a Jackson involved in that area.

**John BRADLEY:** I should say: no relation.

**Matthew JACKSON:** Thank you for the question, Ms McArthur. Just on the brumbies, we are continuing to work on our programs in the Barmah National Park and the Alpine National Park.

**Bev McARTHUR:** So how many have been shot and at what cost?

**Matthew JACKSON:** As I have mentioned to you many times in this committee and outside of that, we will not go into the detail of those due to the safety of contractor staff and their welfare. However, I will continue to say that we will be getting the Barmah National Park and working towards 100 horses and then future eradication in line with the joint management plan, and then in the Alpine National Park, whilst we appreciate New South Wales and Kosciusko National Park, we will continue to work on eradication of horses in the Bogong High Plains and then continue to work on sensitive areas post the 2019–20 bushfires. I can assure the committee that we are getting on with the programs in the safest –

**Bev McARTHUR:** Eradicating the horses in the High Country and the Barmah forest?

**Matthew JACKSON:** The plan, the current plan that is enforced, is to get the horses down to less than 100, and we believe they are. And then in the Alpine National Park, whilst we cannot eradicate them because of the border of Kosciusko National Park, we will focus on eradication in the Bogong High Plains and then sensitive areas post the 2019–20 bushfires.

**Bev McARTHUR:** Don't the taxpayers have a right to know how much all this is costing?

**Matthew JACKSON:** Yes, sure, I can give you the points, absolutely.

**Bev McARTHUR:** Give it to us on notice if you like.

**Matthew JACKSON:** No, I can do that here.

**Bev McARTHUR:** Have you got it there at your fingertips?

**Matthew JACKSON:** Yes, I do, noting that the federal government funds some of these programs too. Ms McArthur, starting in the 2018–19 budget, \$450,000 was allocated to Parks Victoria to move and implement the plans. The Australian government, being the federal government, in 2021–22 over a two-year period allocated \$430,000 to implement the Alpine National Park control programs. Parks Victoria and the department have allocated a further \$425,000 towards the delivery of the Barmah action plan for 2022–23, and, again, once we have floods and so forth. that will carry forward. Parks Victoria and the department have allocated a further \$815,410 towards the delivery of the Alpine National Park feral horse control program across the 2021–22 and 2022–23 financial years. And, obviously, if you know the Senate inquiry, Parks Victoria recently submitted to that, and hopefully the findings of that committee will be that there will be Commonwealth government funding further to control those programs in the future.

**Bev McARTHUR:** So Mr Jackson, the funding is for shooters to shoot these moving targets either from the air or on the ground, leaving the animals to die a very slow death. That is the process of eradication?

**Matthew JACKSON:** No, that is incorrect, Ms McArthur. The funding is for controlled techniques of feral horse management programs that do include rehoming, ground shooting and potential aerial shooting.

**Bev McARTHUR:** You are not rehoming them.

**Matthew JACKSON:** We have rehomed horses.

**Bev McARTHUR:** About 20.

**Matthew JACKSON:** No, an example in the Barmah park recently – there were 33 horses rehomed.

**Bev McARTHUR:** Thirty-three. Right.

**Matthew JACKSON:** And Ms McArthur, if I could just add to that, there were a further 21 declined by the brumby society – we had a further 21 horses captured and rehomed, but due to sex, age and appetite they were released back into the park. We will continue to rehome where it is safe and appropriate to do so.

**Bev McARTHUR:** I hand over to Mr O'Brien.

**Danny O'BRIEN:** Thank you, Mrs McArthur. Mr Jackson, while you are there, the chestnut – I am sure you have got an answer for me. You, two years ago, said the Thurra River bridge reconstruction was ready to go to tender. Has it finally gone to tender?

**Matthew JACKSON:** I can probably comment for the department on that. The department is still doing that, Mr O'Brien. But the question – thank you for that. It is out to tender. It has been tendered, and I am aware – if the department would like to comment – that there will be a successful applicant announced shortly.

**Danny O'BRIEN:** Sure. Okay. You or the department or Parks Vic committed to the Member for Gippsland East a few weeks ago that the Cape Conran boardwalk would be reopened by Christmas. Is that still the case?

**Matthew JACKSON:** The east cape boardwalk?

**Danny O'BRIEN:** Sorry?

**Matthew JACKSON:** The east cape boardwalk?

**Danny O'BRIEN:** Yes.

**Matthew JACKSON:** Yes. So we have just been reissued another permit on 10 November from First Peoples–State Relations to continue with the project, so that will be finished just a bit early into the new year – so back on schedule, permits are all in place, complicated landscape and that will be included. And the builder is already onsite, no tendering – so early next year.

**Danny O'BRIEN:** But not by Christmas?

**Matthew JACKSON:** No. We only just got the permit on 10 November from First Peoples–State Relations to proceed with that program.

**Danny O'BRIEN:** Okay. I will let you tell Bully that. I will not do it.

**Matthew JACKSON:** Yes. That is fine.

**Danny O'BRIEN:** Secretary, can I just touch on your presentation.

**John BRADLEY:** Yes.

**Danny O'BRIEN:** You mentioned that 78,000 hectares across the state have been treated with either planned burning or mechanical treatments. I appreciate that the government long ago dropped the 5 per cent target of planned burning from the royal commission, which was roughly equivalent to about 440,000 hectares. What sort of risk reduction level are we getting to, and are you satisfied that 78,000 is enough going into a very hot fire season? Sorry, I hate people saying that – potentially a very hot fire season.

**John BRADLEY:** I do understand the nature of the question, and I might ask Sam Quigley, the Acting Chief Fire Officer, to join us at the table in case you have got supplementaries, Mr O'Brien. But the short answer is that our statewide residual risk profile is currently sitting at the moment at around sort of 65 per cent against our target of 70 per cent and is within our targeted standard, if you like, for how we manage risk across the state. But also when we look at ultimate risk outcome for community, we are recognising that that planned burning window is becoming harder and harder to undertake planned burns within because of the challenges of weather conditions, and we have had a number of seasons –

**Danny O'BRIEN:** We have had three wet years.

**John BRADLEY:** Yes, correct.

**Danny O'BRIEN:** So, I mean, it is either it is too hot and dry to do it, or it is too wet and soggy to do it.

**John BRADLEY:** Correct. So, Mr O'Brien, to answer your question, it is reasonably correct that in a changing climate what we are seeing is a volatility in the weather that does make it challenging to take advantage of those planned burning windows, and Mr Quigley can talk to some of the techniques we are using to address that. But when you ask that question about the overall risk profile for the state, I should indicate to you that all 12 of the fire and emergency management targets within our BP3 measures have been met, with 187 kilometres of fuel breaks instead of a target of 152 kilometres met. Our strategic fire access roads target has been achieved with 2155 kilometres instead of 2000. Our personnel with fire and emergency management roles



exceed the targets. As I mentioned, our statewide residual risk target is at 65 per cent – our outcomes at 65 per cent instead of a target of 70 per cent. We have achieved our stakeholder forum targets. We are performing with our fires kept below 5 hectares, which is critically important to stop small fires becoming big; with the target of those being 80 per cent, we are achieving 92.4 per cent. And in terms of our overall impact on fires controlled at first attack, that performance is at 97 per cent instead of 80 per cent. So while you are absolutely right to highlight the challenges of taking opportunities of planned burning, the overall risk profile for the state is as good as it could be given the challenging conditions we are coming into in an El Niño year.

**Danny O'BRIEN:** And apologies, Mr Quigley, but the Secretary has answered the question and I need to move on, sorry. Thank you for coming forward.

**Sam QUIGLEY:** No problem.

**Danny O'BRIEN:** Secretary – I am not sure who this will go to – the government announced the Gippsland plantations investment program a number of years ago. Can I ask how many new plantations and how many hectares, how many trees, were planted in the two years in question?

**John BRADLEY:** Thank you. I will ask the Acting Deputy Secretary to join us at the table. I know she has got those numbers to hand.

**Phuong TRAM:** Thank you for the question, Mr O'Brien. The Gippsland plantation program will see 14,000 hectares or 16 million trees in plantings. So far there have been approximately 4000 trees that have been planted –

**Danny O'BRIEN:** Four thousand trees or 4000 hectares?

**Phuong TRAM:** Four thousand trees.

**Danny O'BRIEN:** Right. 4000 trees. That is under the Gippsland plantation investment program.

**Phuong TRAM:** Correct. The rate of planting has been lower than expected because the establishment of softwood plantations in the Gippsland region is a seasonal activity that typically occurs during the winter months. We understand that Hancock Victorian Plantations is continuing to work closely with traditional owners to address cultural heritage matters so that the planting activities can be accelerated in 2024.

**Danny O'BRIEN:** Wow. So 4000 trees have been planted on how many hectares? Have you got that figure?

**Phuong TRAM:** I do not have that figure to hand.

**Danny O'BRIEN:** How many new plantations have been actually established under this program? Is that it, the 4000 trees?

**Phuong TRAM:** Well, Hancock plantations is going through the process of purchasing and acquiring new land at the moment. There is land. I think at the June hearing we indicated that Hancock had acquired a piece of land, and they were working through and doing the planning with the traditional owners. What they are doing at the moment is assessing appropriate land for purchase to continue to grow the plantation.

**Danny O'BRIEN:** This \$110 million investment, which I think became \$120 million when it went to tender, was announced, if I am not mistaken, in 2017. Will a single one of the trees under this program be available in 2030 for the timber industry?

**Phuong TRAM:** Well, Hancock plantations only just started planting in June this year, so the period it is going to take to establish that plantation will take some time. It will likely be beyond 2030.

**Danny O'BRIEN:** Okay. So the 4000 trees, were they radiata pine or blue gums?

**Phuong TRAM:** I am not sure. I do not have that detail.

**Danny O'BRIEN:** Do we know what they are even for, because there are trees and there are trees. The plantations are supposed to be to replace the native timber industry, but if it is radiata pine, or even if it is blue gum, it is not relevant to structural timber.

**Phuong TRAM:** Our understanding is it is largely softwood, which is timber that is conducive to the construction industry.

**Danny O'BRIEN:** Sorry, I should not say structural, but not replacing native hardwood. Okay. Can you confirm when those 4000 were planted? Was that in 2022–23?

**Phuong TRAM:** Yes, it was in 2022–23 that the planting started.

**Danny O'BRIEN:** Okay. Nothing in 2021–22?

**Phuong TRAM:** No.

**Danny O'BRIEN:** Okay. Can I move on. This is still on timber: the government made an announcement in the budget this year that \$200 million additional would go into the forestry transition plan, and it stated that that takes the total support to \$875 million. Could I ask for a breakdown of what makes up that \$875 million?

**Phuong TRAM:** Yes. The \$875 million: there was \$200 million for timber harvesting transition support for sawmill businesses and workers and alternative work for harvest and haulage contractors, and it includes downstream supply chain support as well, which the Department of Jobs, Skills, Industry and Regions is delivering. There was another \$200 million invested in 2019–20 and supplemented in 2020–21 for a forestry transition package to support timber communities and their families; \$151.9 million was invested to strengthen and implement the *Victorian Forestry Plan* through active forest management, bushfire management and road maintenance; there was \$121 million for GPIP, which we have just discussed; and \$193 million was for targeted timber industry and worker transition support services, which included ensuring that timber businesses could remain open and retain workers following the Supreme Court's decision in November 2022.

**Danny O'BRIEN:** Sorry, can I just clarify that? Was that \$193 million, that last one?

**Phuong TRAM:** That was one \$193 million. That came from the 2023–24 budget. It is part of the \$388 million that was announced in the budget papers this year.

**Danny O'BRIEN:** Okay. Half of those sound the same, but can I get a breakdown of how much is available for timber mills, how much for forestry workers, how much for harvesting operations and how much is actually for the forestry plan.

**Phuong TRAM:** I think it is probably a more detailed answer than I will have to hand. The *Victorian Forestry Plan* then transitioned to the forestry transition support once the government announced bringing forward the end of native timber harvesting to 1 January 2024. The investment that was made as part of the *Victorian Forestry Plan* in 2019 was repurposed and scaled up to provide support for business, community and workers, so that is a package of supports that is available for everyone. We do not have that itemised; it is just compensation provided to sawmill businesses for timber volumes unrealised based on the contracts they have with government, standdown payments offered to harvest and haulage operators for work that they are unable to do and worker support payments available for eligible workers of up to \$150,000.

**Danny O'BRIEN:** Okay. I assume you will not be able to give us data on payments to individual workers or companies, but can we get a breakdown of the grants to the recipient organisations? So that includes the ones that have gone to local councils, local areas, industry and business. Is it possible to get those?

**John BRADLEY:** Mr O'Brien, I might be able to assist with some of those details. Under the local development strategy grants that were being provided to councils, in 2021–22 a total of \$3.2 million in local development strategy grants was awarded, which includes Wellington Shire Council to deliver the Yarram and Heyfield local development strategies at \$720,000; Benalla rural city, \$360,000; Yarra Ranges Shire Council, \$500,000; Upper Murray Inc. to deliver the Corryong local building strategy –

**Danny O'BRIEN:** Secretary, could that be provided on notice, given I have now run out of time?

**John BRADLEY:** Sure. Of course.

**Danny O'BRIEN:** Thank you.

**The CHAIR:** Thank you, Mr O'Brien. We will now go to Mr Hilakari.

**Mathew HILAKARI:** Thank you so much. I am just taking us to page 27 of the PAEC general questionnaire that was provided – thank you for the detailed work that has gone into that. On page 27 it notes the Victorian government's commitment to the 2035 interim target to reduce Victoria's greenhouse gas emissions by 75 to 80 per cent and bring forward the date for net zero to 2045, previously 2050. Could you please update the committee on the importance of these updated targets?

**John BRADLEY:** Yes. Thank you very much for the question. Again, Ms Jackson might want to offer a view around the approach to that. The bringing forward of that target from 2050 to 2045 to achieve net zero emissions reflects both the urgency of achieving a Paris-aligned outcome in the climate change strategy of the government but also the opportunity that is there through a coordinated approach to climate action to achieve significant economic growth and regional economic development in a green energy transition. What we see in the target being set at 75 to 80 per cent by 2035 is a commitment of what the state can achieve through the coordinated action that is occurring through the climate change strategy released previously by the government. That sets out for each of the major sectors both the risks and the adaptation challenges in response to climate action but also the significant measures that can be taken across the energy transition, including stationary energy, both electricity and gas; in relation to the decarbonisation of transport through measures like achieving 50 per cent of light-vehicle sales by 2030 being zero-emission vehicles; or through the progress that is being made in the agriculture sector through initiatives like our on-farm pilot action projects that we referred to earlier, which are helping 250 farm businesses to assess their emissions profiles and those things that will have most significant impact. Then we are also seeing in the land use, conservation and forestry sector significant abatement occurring as a net sink in relation to carbon sequestration within land use and forestry. It is an integrated plan that the government reports on transparently, and it is something where I am sure, if you would like to go to specifics, Ms Jackson will be able to assist further.

**Mathew HILAKARI:** Yes, and I am just interested in those signals that are sent to the market and how the whole economy is transitioning. If you can talk about some of the specific programs, I would appreciate that.

**Carolyn JACKSON:** Yes, sure can. I might just give you an overview of how we have gone to date, because I think that is really important just to show that it is not just a 2035 target, but there has been work that has been achieved so far. In terms of the 2020 target, which was to reduce emissions by 15 to 20 per cent, that target was actually achieved three years early, and it was achieved by a significant margin, so the 2020 emissions were actually 29.6 per cent below 2005 levels, and that is in comparison to that target of 15 to 20 per cent I mentioned. The latest available data shows that by 2021 Victoria's emissions had reduced by 32.3 per cent below 2005 levels, and that was in the presentation earlier. That is within the 2025 target range, so at 2021 we were already in the 2025 target range, which is 28 to 33 per cent. We are now working on achieving the targets that are future targets, so the target of 45 to 50 per cent by 2030, the 2035 target of 75 to 80 per cent below 2005 levels and of course bringing forward the achievement of net zero from 2050 to 2045. So there has been a significant amount of work that has been done to date.

It is worth noting that there has been economic analysis that was commissioned by the department, and that shows that the Victorian economy will continue to grow strongly while continuing to cut emissions to meet Victoria's targets, and that analysis is consistent with historical experience. Between 2005 and 2021 Victoria's economy grew by 42.8 per cent, while emissions fell by that 32.3 per cent level that I mentioned. There has been significant investment that the government has made, and that goes to your point around certainty. The government while setting targets has also then put in place funding to ensure that there is an orderly transition and that we are meeting those kinds of targets. The work over 2021–22, for example, has been setting new targets for the take-up of renewable energy, offshore wind, storage and developing a road map to transition away from fossil gas. There has been support for hundreds of thousands of Victorian homes and businesses to cut emissions by installing energy-efficient products: solar PV, solar hot water and battery systems. There has also been work to accelerate the uptake of zero-emission vehicles and work to establish a new land restoration scheme to improve biodiversity and sequester carbon, and there is work that is happening with the BushBank program, which I can talk to as well, and also some pilot activities to reduce emissions from agriculture. So

there is a range of work that is happening across government, not just within my team, but certainly across government, to really push forward and achieve those targets and work towards hitting net zero by 2045.

**Mathew HILAKARI:** You have read my mind on BushBank. It was not the next question, but why don't we go to that straightaway and go into a bit of the detail?

**Carolyn JACKSON:** Sure, so BushBank is a program within my area. It is a significant project in that at the end of the project it will rehabilitate 20,000 hectares. In Victoria a really good analogy is the MCG – it seems to attract the most attention – so that is the equivalent of 10,000 MCGs. It is significant. The reason that it is also significant is because it is not just government doing it alone. There is certainly a recognition in Victoria, but also more broadly, that we do need the private sector and we need philanthropy to help arrest biodiversity decline. The BushBank program has provided about \$31 million of government investment, and then we have worked with the private sector with an organisation called Cassinia, who are delivering BushBank, or at least the private land component of BushBank, for us, and they have managed to leverage a significant amount of private sector investment as well. It is in its infancy at the moment. It is a long-term project. With 20,000 hectares, it is going to take some time to revegetate those hectares. I think we have achieved about 850 hectares of revegetation to date, but it is going quite well, and over the course of the coming years we will hit that 20,000-hectare target.

**Mathew HILAKARI:** And it obviously will not be at the MCG – whereabouts across the state are we seeing those sites already?

**Carolyn JACKSON:** There is still work happening by Cassinia. They need to sign up private landowners to participate in the program. I am expecting it will be statewide, but we do not yet have the details of where those sites will be, so they will be coming online progressively as Cassinia works to revegetate.

**Mathew HILAKARI:** And Secretary, you might throw this to someone else in a moment as well, but the independent expert panel that has been providing support around these changes – could you just reflect on some of their work and some of the insights that they have provided on updated emission reduction targets?

**John BRADLEY:** Yes, and indeed Ms Jackson will be able to speak to the detail of the work with the panel.

**Carolyn JACKSON:** Okay, great, straight to me – I will not have that water. Thank you. Just to link it, there was \$10 million that was allocated to climate action for seizing the economic opportunity of a net zero climate resilient state. That did include the establishment of that independent expert panel in January 2022. That panel was to provide advice on a 2035 interim emissions reduction target for Victoria, which is required under the *Climate Change Act 2017*. My area or the department, the former DELWP at the time, provided secretariat services for the panel. The panel ran a public consultation process from April to June 2022 which sought feedback on an issues paper to inform advice to government on setting the 2035 target. The panel received 996 responses to the general survey, 381 responses to the youth survey and 109 submissions from organisations and individuals. The former DELWP conducted economic modelling and emissions analysis to inform the independent expert panel and government's decision on Victoria's 2035 target.

**Mathew HILAKARI:** So you had almost 1500 people respond. Is that a usual sort of response rate?

**Carolyn JACKSON:** I could not compare it to other ones, to be honest, but it is pretty significant in terms of the number of responses that we received. I guess it shows the importance of the issue for a number of Victorians.

**Mathew HILAKARI:** Great. Fantastic. I might end up here again, so we will keep going, but you direct me as you please. Looking at some of the adaption action plans and regional climate change adaption strategies, could you provide a bit of further detail on these and how they are starting to impact communities?

**John BRADLEY:** Thank you. Look, it is a really important area of activity for government because along with the release of *Victoria's Climate Change Strategy* in 2021 the government committed almost \$2 billion also to accelerate climate action and invest in a clean energy future. And over 2021–22 and 2022–23 there were a broad range of initiatives as part of that plan to increase Victoria's climate resilience. They include things we are talking about all the time, including opportunities for Victorians to reduce their power bills and make homes more energy-efficient and cooler during periods of extreme heat but also delivering technology upgrades for

firefighters so they can reduce the risk of bushfire and use some of the best climate science in the way we deal with our fire risk management. It includes funding safer, healthier and more resilient marine and coastal environments for the community by addressing some of those critical erosion and flood risks that we know are very present in relation to climate change.

In the 2021–22 state budget also covered by this committee, \$10 million was invested in climate action over two years to seize the economic opportunity of a net zero climate resilient state. That included providing that expert advice on climate resilience opportunities that can reduce the impacts of climate change across Victoria. In adaptation action plans that the government released on 9 February there were seven separate adaptation action plans for the built and natural environment, the education and training system, for health and human services and the primary production, transport and water cycle systems. That set of plans incorporated 127 actions to improve public assets and services, such as schools and health and transport assets, so they can bounce back from extreme weather events. There were changes to government policies, operations and decisions that reflected climate science and prepared for climate impact. There was some funding to support genuine partnerships with traditional owners and Aboriginal communities, so we can embed cultural knowledge in adaptation and support self-determination and support for our industries and communities to access high-quality evidence-based climate information and guidance through that process. So those adaptation action plans were a very significant way of distilling for each of those sectors what the most important risks were to address and also where the opportunities might be indeed in a more resilient economy for business.

Just on that note, I note that our work across the circular economy in the department and that Recycling Victoria strategy that the government has introduced is also really important in terms of the climate action dividend it provides. We know that we see emissions reductions through the circular economy, not just through the reduction of organics going to landfill or the opportunities for energy from waste in better use of those methane emissions but also through landfill capture practices as well. A circular economy can, in addition to those direct treatments of methane emissions, also reduce the amount of material that is used in production of things in the economy. Seventy per cent of our emissions are actually created through the production and use of materials, and so a circular society has been estimated to be able to reduce material use by up to 28 per cent, and the dividend of that is that if you could achieve that, you would be reducing emissions by approximately 39 per cent. So the integrated work across those adaptation action plans and the work that occurs across the different parts of the department from the circular economy through to the areas that Ms Jackson is responsible for in the climate action division all contribute towards that integrated outcome for the community.

**Mathew HILAKARI:** One of the programs which is important for my community out of those adaptation plans is More Trees for a Cooler, Greener West. That came out of the 2021–22 budget – budget paper 3, page 36 is the reference point. I am just hoping you can start to explain how some of that is going to improve the environmental outcomes in the western suburbs, particularly with reference to some of the other parts of Melbourne with much denser tree coverage.

**John BRADLEY:** Are you happy to take that one?

**Carolyn JACKSON:** I am happy to. Thank you. You are right, and in 2018 the government commissioned a report that identified that Melbourne's west had just 5.5 per cent canopy cover in urban areas compared to 17.4 per cent in the inner south-east and 25.9 per cent in the east. Accordingly, the western suburbs are disproportionately exposed to the impacts of urban heat across metropolitan Melbourne, and that led to the More Trees for a Cooler, Greener West initiative, which seeks to plant 500,000 trees in Melbourne's west, creating cooler spaces for families in the western suburbs to enjoy for generations to come. There are obviously also the flow-on implications in terms of addressing climate change and helping to meet the target for net zero emissions by 2045. The trees will also complement the thousands of hectares of open-use space being delivered under the suburban parks program.

In terms of the More Trees for a Cooler, Greener West initiative, the government committed \$5 million in the 2021–22 budget to the delivery of this initiative. Two additional allocations, including \$2.97 million in 2022–23 and \$1.98 million in 2023–24, for a total of \$4.95 million, were provided to continue the delivery of this program. In terms of outcomes, in 2021–22 the former Department of Environment, Land, Water and Planning, DELWP, commenced the tree planting in September 2021, and those tree-planting projects focused on mass tube stock planting and advanced trees in local streets. In the 2021 calendar year there were 32,981 trees, and that first delivery phase focused on advanced trees in local streets where they are most needed to address issues

associated with urban heat. In 2022–23 there were 178,878 trees planted from May 2022 to June 2023. Projects as part of the third delivery phase were announced on 21 April 2023. This phase includes 134,154 new trees that will be planted by mid-2024. That encompasses grants to organisations to plant those trees, to schools and also to DEECA-led projects on Crown land. As of November – as of now – over 325,000 trees have been planted, with more than 3000 volunteers supporting the program through planting trees.

**Bev McARTHUR:** How many are still alive?

**Carolyn JACKSON:** I obviously do not have that impact, but part of –

**Mathew HILAKARI:** I can talk to that. I have been to a few sites where we have seen trees from multiple years. They are taller than you – some of those trees.

**Nick McGOWAN:** That is not saying much!

**Mathew HILAKARI:** I will leave that.

**Carolyn JACKSON:** If I can, Mrs McArthur, part of the reason for planting those advanced trees and also timing when they are planted is to give them the best chance of survival. We have not just used tube stocks; we have certainly planted advanced trees to make sure that they do survive. Over 325,000 trees have been planted to date, and we are expecting by the end of 2024 that there will be over 410,000 trees that will have been planted.

I probably should also note, if I can, and to your point Mrs McArthur, the department has consulted with key stakeholders. We have worked with stakeholders to make sure that we are planting trees in a way that ensures the right tree species were selected for the selected locations and that the trees were planted at the right time of the year. That has meant that the projects have been phased over a longer period of time, but it is making sure that we give those trees the highest chance of survival.

**Mathew HILAKARI:** Just in terms of the impact on biodiversity, are we starting to see some of that in the western suburbs of Melbourne?

**Carolyn JACKSON:** We certainly will. I do not have that level of detail with me. But certainly as you revegetate areas, whether it is the trees with the cooler west or whether it is the BushBank program, there are certainly positive biodiversity impacts, which are fantastic to see.

**Mathew HILAKARI:** Just on community involvement, I have been to Werribee zoo to plant there and Victoria University in East Werribee. Can you just talk to some of the other community organisations that are involved in this program?

**Carolyn JACKSON:** I might have to take that on notice, if I can. I do not have the number or the types of community organisations. As I mentioned, there have certainly been over 3000 volunteers that have taken part, but I do not have those community groups with me.

**Mathew HILAKARI:** All right. At different points in time I have been along with at least several hundred of those volunteers. It is quite extraordinary to see the growth just over a single year that we are achieving with the advanced trees, but also those in tube stocks are going great guns.

**Lauren KATHAGE:** Are there honeyeaters there, New Holland honeyeaters?

**Mathew HILAKARI:** There are some rare lizards that have been found in the west recently –

**Lauren KATHAGE:** The far west?

**Mathew HILAKARI:** so we are really getting some brilliant things happening there. While we are on biodiversity, I might take us to budget paper 3, 2021–22 state budget and page 40. There is a quote there around the unique biodiversity protection through community-driven action program. Could I just hear a little bit more about some of those community-driven biodiversity action programs?

**Carolyn JACKSON:** Sure, happy to. It might be one that we perhaps take on notice, because I do not think I could answer it in 4 seconds.

**Mathew HILAKARI:** Apologies.

**The CHAIR:** We might be able to come back to that one. Ms Sandell.

**Ellen SANDELL:** Thank you, Chair. Good afternoon, everybody. I would like to ask about threatened species, perhaps to you, Secretary, but feel free to pass it to the right person. A 2021 VAGO report found that:

DELWP –  
now DEECA –

... is not complying with the legislative obligation to prepare action statements for all listed species in a timely manner.  
and:

Its use of action statements is therefore not driving the protection of threatened species, as intended under the FFG Act.  
Do we know how many action plans the department has delivered since then, so over the two years?

**John BRADLEY:** Thank you very much for the question. The approach to managing the protection of threatened species is a significant priority. What we have done as a department is to devote our resources to those initiatives which are achieving both on-ground impact, like the helmeted honeyeaters released to the natural environment that I referred to earlier as part of our programs, and the important work that we covered in the opening presentation. In relation to these action statements, we accepted the finding of VAGO, that there did need to be a timely level of progress in relation to those action statements. We have achieved approximately 100 I think – the Deputy Secretary will be able to confirm – of those in a first round of action statements that have been updated, but we also have a systematic program that we have been working through with our scientific advisory committee to seek to complete the outstanding action statements in the very near future. I might just see if the Deputy Secretary is able to confirm.

**Carolyn JACKSON:** That is right. There have been 100 that have been recently released, and we are obviously working as hard as we can on the others.

**Ellen SANDELL:** Thank you. How many are left to do?

**Carolyn JACKSON:** There are still a number. I cannot remember, I am sorry, the exact number off the top of my head.

**Ellen SANDELL:** Could you get that to us on notice?

**Carolyn JACKSON:** I am happy to give you that number, yes.

**Ellen SANDELL:** Thank you. I appreciate that. And, Secretary, you referred to the VAGO report. One of its recommendations was to reform the processes for preparing action statements given what VAGO found. Could you just outline how those processes have been reformed?

**John BRADLEY:** Yes. And that was the allusion I was making to the work we have been doing with our scientific advisory panel. The biodiversity division that Ms Jackson leads has done a bottom-up assessment of the key features that are required to be completed as part of those action statements and to identify how we can use effectively more digital solutions to populate those action statements in a quicker way while still making sure they are robust and meet the requirements of the legislation. It is fair to say that the progress of Victoria's action statements, although it is not as occurring as quickly as we would like, probably has a clearer level of specificity in relation to those threatened species action statements than other Australian jurisdictions. That is recognised when we deal with those independent scientific advisers – that there is more work to be done but that we are actually relatively advanced in the assessment that we have got through the capacity of the Arthur Rylah Institute, the strategic management prospects framework that we use there to look at those broad indicators of species survival through conditions in the environment in which they live. So I think there is still more work to be done, Ms Sandell, but it is an area of work that continues.

**Ellen SANDELL:** Thank you. And my understanding from this year's budget is that the Arthur Rylah Institute had a funding cut. Do you anticipate that this will impact this work going forwards?

**Carolyn JACKSON:** If I can – that is not correct. The Arthur Rylah Institute is mainly funded through cost recovery so that the work that they do, whether it is for my division or, for example, water and catchments group or an external party, is paid for on an engagement basis. There has been no funding cut. They are supported with funding for I guess administrative type things that maybe you cannot cost recover for, but there has been no change to that funding.

**Ellen SANDELL:** And, Ms Jackson, is there anything you wanted to add just about any more specificity around how processes have been improved to enable you to deliver these action plans?

**Carolyn JACKSON:** Happy to – and I do have a couple of those numbers for you. So in terms of your question around how many are left, there are about 1500. We are aiming to have about 500 of those done by the end of the year in addition to the hundred that were released a couple of months ago.

**Ellen SANDELL:** By the end of, sorry, this calendar year or the financial year?

**Carolyn JACKSON:** Yes, you are right. Yes. So there has been significant progress that has been done to date. As the Secretary has talked about – and they are important and we do not want to cut corners, and while I note that there is a big gap between the ones that we have done and the ones we need to do, we are the leading jurisdiction in terms of completing them, so other jurisdictions are looking to us in terms of how they are being done. But we certainly have been looking at how we can prioritise the action statements that we believe need to be completed first and are looking at I guess some foundational work that might apply across all of those action statements so that that is sort of the basis that we use going forward and are also looking at those action statements where we have rigorous data and making sure we are progressing those as quickly as we can too. So there has been a lot –

**Ellen SANDELL:** So is the prioritisation then the ones that you are able to complete that you have the data for, that you have the expertise for, or is there a prioritisation process based on, say, how threatened the species is or other biodiversity indicators?

**Carolyn JACKSON:** It is mainly based on the data. So we are looking at where we have got the information to be able to complete that action statement. We are looking at prioritising those first so that we can get a number out as quickly as we can.

**Ellen SANDELL:** So what are the barriers to you doing more? Is it primarily data, not enough research, that kind of thing, or is it your internal resource?

**Carolyn JACKSON:** It is probably a little bit of both. So we definitely have a dedicated team working on it, but they are quite a specialised team. It is not something that you can necessarily bring an extra person in on quickly and get them to be delivering action statements. But we are reliant on the data, and there are I guess a number of different views as well that we just need to work through. So we need to make sure that when we are developing up action statements that we are reflecting those views as much as we can.

**Ellen SANDELL:** What do you mean by that?

**Carolyn JACKSON:** There are different views around what actions should be a priority and whatnot, so you might have –

**Ellen SANDELL:** As in political considerations?

**Carolyn JACKSON:** Sorry?

**Ellen SANDELL:** Is it more like political considerations?

**Carolyn JACKSON:** No, no, no. Sorry, more in terms of community. You might have a particular community group that thinks a priority action should be X, but you might have another community group that thinks a priority action should be Y, or a traditional owner group as well. So there are those differing views, but it is certainly not political views.



**Ellen SANDELL:** Yes. Thank you. I appreciate that.

**Bev McARTHUR:** No-one thinks you should be shooting brumbies.

**Ellen SANDELL:** Well, I do not know about that, Mrs McArthur. But in May 2020 the government committed to review the *Wildlife Act*. A panel was appointed to do this and delivered its report to government in December 2021 – so two years ago. We understand this also included a review of related Acts, such as the *Flora and Fauna Guarantee Act*, to make sure our threatened species legislation is fit for purpose. The panel's report still has not been made public and the government has not responded to it. Where is this up to?

**Carolyn JACKSON:** You are right, there was an expert advisory panel that undertook the review, and that report was submitted to the then minister in December 2021. The government is still considering its response to each of the panel recommendations. In terms of the length of time that it has taken, as you would know, the *Wildlife Act* regulates a wide range of activities relating to wildlife care, management, use and control. And likewise there were a wide range of views in the community about how government should approach these activities. Government acknowledges that it is quite a complex area, and there is significant work that the department is undertaking to make sure that that balance is right.

**Ellen SANDELL:** I appreciate that, but there was a panel appointed, which I assume was appointed in part to represent some of those views and provide expert advice to government. They did that job in a year and half, and yet we have been waiting two years for the response. I am just wondering: two years seems a very long time to be waiting for that response.

**Carolyn JACKSON:** It is a long time. All I can say is it is a complex nature, or there are complex problems that the *Wildlife Act* grapples with, and there are those widely different views held by the community on the best way to resolve them. So we are still working that through and, given its importance, definitely do want to get it right.

**Ellen SANDELL:** Okay. Thank you. Just returning to the VAGO report for a moment, the VAGO report found the department presented a business case for *Biodiversity 2037* to government that listed several options. The government chose to fund the bare minimum option, also known as the 'life support' option, which was funding much less than recommended by the department. The department at the time advised that the option was likely to result in continued decline of biodiversity across Victoria if the government chose that option, which they did. Has that warning played out and the biodiversity crisis worsened since 2021, and how have you observed that?

**Carolyn JACKSON:** Thank you for the question. I cannot comment on a business case that was submitted to government for consideration. What I can say is that *Biodiversity 2037* is Victoria's plan to stop the decline of our native plants and animals and improve our natural environment. There has certainly been progress internationally, including with the global biodiversity framework, which was struck by 200 nations last December, where signatories agreed to take urgent action to halt and reverse biodiversity loss by 2030. That agreement recognised that the scale of the challenge is great and that partnerships with the private sector and the broader community are required to halt and reverse biodiversity decline.

As I mentioned earlier, *Biodiversity 2037* does state that government cannot do this alone and that there certainly does need to be co-investment. Progress is being made towards the targets that are set out in *Biodiversity 2037*, but a broader suite of action is required if we are to halt biodiversity decline, and that is why we are working with the private sector to develop strong partnerships through programs like the Nature Fund and the BushBank program, for example, and are also looking at other opportunities. As this committee has heard today, the Victorian government announced that timber harvesting will end by 1 January 2024, and obviously that will have biodiversity impacts as well. There is a range of work happening, whether that is government funded or working with the community on biodiversity or also then these ancillary decisions, which will have biodiversity implications as well.

**John BRADLEY:** If I could just supplement that, Ms Sandell, over the two years in question for this committee, in 2021–22 and 2022–23, there was \$115 million spent in that period on biodiversity and conservation across works to address invasive species, biodiverse land sequestration, environmental volunteering and landcare, threatened species actions and strengthening country with traditional owners. Coming out of the 2019–20 bushfires and some of the national disasters, we have also been targeted in

refocusing the work on biodiversity with 2.2 million hectares of pest predator controls, 3.3 million hectares of herbivore pest control and 100,000 hectares of weed work as well. So in addition to the BushBank and the work in relation to the Nature Fund there is a fairly substantial investment occurring over the two financial years in coverage for the committee.

**Ellen SANDELL:** I appreciate that, although VAGO found that the government chose the option which was the life support option and that the funding shortfall was about \$110 million over the first four years and \$38 million ongoing for *Biodiversity 2037*, so that was advice provided by the department to the government. We talk about the Nature Fund, but that was not funded in the last budget and then only funded \$3.7 million, so it is quite a shortfall between what the department's own advice is saying is necessary to protect threatened species and what is actually being committed. I am trying to understand what the impact of this funding shortfall has been. One question I have is: the last annual report for Biodiversity 2037 was in 2020 – three years ago. Has the department developed annual reports for 2021 and 2022?

**Carolyn JACKSON:** Thank you. We are in the process of finalising those reports. The last report that was published was for 2020, so we are aiming to finalise the reports for 2021 and 2022. It is worth noting –

**Ellen SANDELL:** Do you know when they will be finalised?

**Carolyn JACKSON:** I cannot give an exact time frame, but it should not be too far away, and when they are finished they will be posted to or uploaded to the DEECA website as per the 2020. It is just worth noting with the progress reports that they are compiled using information from organisations across the environment sector, including traditional owners, DEECA obviously, other government agencies, not-for-profit organisations, businesses, community groups and individuals, so there is a fair bit of data that needs to be worked through and consolidated to prepare those progress reports.

**Ellen SANDELL:** Okay, thank you. VAGO in their report also found that DELWP, now DEECA, had not provided any further advice to government since 2017 through their budget bids about the impacts of funding shortfalls or on the increased need for more investment due to increased numbers of listed endangered or critically endangered species. Since the VAGO report, has DEECA provided any further advice to government about the impact of funding shortfalls?

**Carolyn JACKSON:** I am not aware of any particular advice around funding shortfalls. We certainly provide information to our minister around the projects that are undertaken, and there will be conversations about budget as part of that, but I am not aware of specific advice like that.

**Ellen SANDELL:** Does DEECA still stand by the goals that are in 2037? Are they still the goals that are being worked towards?

**Carolyn JACKSON:** Yes. Yes is the short answer.

**Ellen SANDELL:** How will they be achieved with such a huge funding gap between what you have said is necessary to reach the goals initially and what the government has actually provided?

**John BRADLEY:** I think we are trying to address the question. Over the two years in question, as I said, \$115 million has been spent, and that is across a broad range of things that go to the goals of *Biodiversity 2037*. It has got quite explicit targets in relation to pest predator and pest herbivore targets and weeds, and those landscape-scale interventions are certainly occurring with the kind of progress that I have referred to earlier, with 2.2 million hectares of pest predator treatment occurring over that two-year period and 3.3 million hectares of herbivore treatment. So we continue to be focused on the *Biodiversity 2037* approach. We are also now moving to a model with Nature Fund and indeed BushBank where we are leveraging private sector investment. The *Biodiversity 2037* goals in themselves were whole-of-economy, whole-of-community targets, and so that is why we are delighted to be getting the kind of leverage we are out of that BushBank program, where we have got \$45 million in non-government funding basically being brought into the work of Cassinia, and 20 parties involved in that work program. We have also funded over that same period of time, 2021–22 and 2022–23, \$35 million in environmental volunteering support. That is helping to enlist incredible community contributions that we are very appreciative of. But *Biodiversity 2037* is more than just a set of targets around threatened species: it is whole-of-landscape, it is whole-of-ecosystem planning.

**Ellen SANDELL:** All right. Thank you. Has the department done any work for the government as part of a response into the parliamentary inquiry into ecosystem decline? The government's response was due in June last year, so it is 18 months overdue. I am just wondering if the department has done any work for that response.

**Carolyn JACKSON:** We have, and I believe the former minister, Minister Stitt, wrote to Parliament to flag that a response to that would be provided in the coming months. So even though the Parliament when that was presented no longer exists, I guess, Minister Stitt at the time did write to say that a response would be provided in the coming months.

**Ellen SANDELL:** Okay, thank you. On a different topic, as you would likely be aware, 55,000 square kilometres off the coast of Victoria's Otway Basin has been released for seismic surveying by TGS through a special prospectors authority. In what ways has the Victorian state government enabled the delivery of surveying for offshore gas in Commonwealth waters off the coast of Victoria? For example, was there any investment made in port infrastructure or other infrastructure that enables boats to undertake this surveying?

**John BRADLEY:** If it suits, I might ask Chris Webb, our Acting CEO of Resources Victoria, to join us at the table. He might have some detail for you on that. Chris, if you do not, then we will take it on notice, but I am not aware of any information that could assist.

**Chris WEBB:** Thank you. I do not have it at a detailed level, but what I can talk about is that the releases that are out in Commonwealth waters are subject to regulation by NOPSEMA and they are then referred to us for assessment locally, and we have our jurisdiction within three nautical miles, so those assessments are done. There is a significant environmental management plan as part of that, and then we reassess that under our local provisions.

**Ellen SANDELL:** I understand all of that. I guess my question is more around: has there been any investment by government to enable that to occur, such as in ports, or also perhaps has there been any funding granted for research into the impacts of it, for example, which might be one for Ms Jackson?

**Chris WEBB:** Yes, it is not really my portfolio.

**John BRADLEY:** I am not aware of one, but we will take that on notice.

**Ellen SANDELL:** That would be great. Thank you. I appreciate that. Just to Ms Jackson as well about the central west proposed parks, you talked before about the surveying having started. Do you know how much of the boundary survey has already been completed?

**Carolyn JACKSON:** I do not. I can take that on notice. It is the surveyor-general that is undertaking that survey work.

**Ellen SANDELL:** No problem. Thank you. Fire and emergency management received \$411 million in the 2022–23 budget for a range of activities, including fuel breaks. DEECA also engaged VicForests to remove fallen timber from roadsides. Over the past few years we have seen removal plans in protected natural areas, such as Dandenong national park and Cobaw State Forest. Why is Forest Fire Management allowed to access timber in protected areas and then use it for commercial purposes with no independent oversight, particularly around impacts on biodiversity?

**John BRADLEY:** Thanks for the question. It is important to note that wherever we are involved in the removal of that debris under the responsibilities of the chief fire officer, those decisions are being made in accordance with that legislative framework. The chief fire officer assesses both the ecological risks and issues as part of that process, but also the need to reduce fuel loads over time in response to that.

**The CHAIR:** Thank you, Secretary. We are going to go to Ms Kathage.

**Lauren KATHAGE:** Thank you, Chair, Secretary and staff. I wanted to ask about renewable energy targets. We had a target for 2023 of renewable energy: in terms of electricity generation, 38 per cent being renewable. How has that renewable capacity grown over the last two years?

**John BRADLEY:** Thank you. It has been an incredible period of growth for renewable energy in recent years. At the moment, as you said, the total renewable energy penetration is 38 per cent; that is the amount that has been achieved. That compares to just 29 per cent back in 2020–21, and back in 2013–14 it was just 12 per cent. So there has been an incredible uplift in renewables. Obviously significant portions of that increase have been in wind, which now represents about 20 per cent, and also in utility-scale solar and of course rooftop solar, which as I mentioned earlier is now about 1700 megawatts in its own right in terms of the amount of solar installed behind the meter. That renewable energy, as it has been delivered in the system, has occurred through a significant amount of government work, including the VRET programs – VRET 1 and 2 as auctions – which have, as you will see in the outcomes for this last financial year and the reports of the department, exceeded our targeted expectations in terms of the megawatts of capacity that we are seeking to achieve.

But all up, Victoria now has achieved 38 per cent renewable energy. It has 1.7 gigawatts of wind and solar under construction or in commissioning right now, which is supporting economic employment, and we remain a really big energy exporter, both in terms of electricity exports from the state and then also exporting more gas than we process in Victoria.

**Lauren KATHAGE:** Thank you. How does that place us for 95 per cent by 2035?

**John BRADLEY:** Yes. We are outperforming our renewable energy targets, and the government has outperformed each renewable energy target that it has set. We also have taken an approach which is being reflected in an integrated energy strategy, which includes the approach we are taking to the development of the renewable energy zones, where the government has invested over \$515 million in transmission-hosting capacity in renewable energy zones to help to unlock some of those resources on the system. It also is reflected in relation to the structured transition agreements, which have been put in place to ensure an orderly transition as we see existing fossil fuel generation leaving the system, and in relation to the investment that has occurred through 100 neighbourhood batteries and the Solar Homes program, which is delivering that 1700 megawatts of solar capacity behind the meter.

So overall the work program is achieving, but it will still be very ambitious to reach that 95 per cent renewable electricity target by 2035. But we also know that we need to be proactive in managing that transition, given the increasing unreliability and planned exit of those coal-fired generators. What we have seen so far, though, is a really significant benefit in this transition, with a focus on renewable energy for households in terms of electricity bills. The Victorian default offer is significantly lower than other jurisdictions. In Victoria, while prices at all levels have been under pressure, our wholesale prices were about 30 per cent lower in the last quarter of the financial year that the committee is considering, and we are seeing that integrated approach to the renewable energy transition provide dividends for large and small customers.

**Lauren KATHAGE:** Thank you. We have spoken a bit in this hearing about storage and investment in storage. Can you reflect a little bit on the role of storage capacity in reaching that target?

**John BRADLEY:** The government has two storage targets. The Deputy Secretary might want to elaborate, but one is to achieve 2600 megawatts by 2030 and the other one to achieve 6.3 gigawatts, or 6300 megawatts, by 2035. Storage and firming of all those renewables will be a really important part of an orderly energy transition. We currently have approximately 500 megawatts of battery storage on the system in Victoria at the moment. There is an incredible potential for storage to play its role, both large-scale utility storage and also the kind of storage that is being delivered through Solar Victoria that Mr Krpan was talking about earlier.

Today there is around 5000 megawatts of battery storage with planning approval in Victoria that is not yet developed. So we certainly do have the capacity – this is not a pipedream – to see the kind of uptake of large-scale utility storage providing its role. The government has done significant things in the large-scale storage space to stimulate our home as the home of big batteries in Australia, including the Victorian Big Battery that was established to provide a system-integrated protection service for transmission. What that means is the battery operates effectively to provide the kind of redundancy that transmission systems need to avoid the failure of one line, and with that battery online it means you can increase the interconnector capacity between Victoria and New South Wales and effectively operate the transmission lines with more energy travelling across them.

So there is a big role for batteries to play. They are sometimes called the Swiss Army knife of new energy technologies because they can support things like frequency control ancillary services, and they can do balancing of absorbing energy when it cannot be used by the market and then put downward pressure on wholesale prices by selling it back into the grid later. There is a big role for batteries to play, but they do have to be managed in a way that is safe and well regulated by Energy Safety Victoria. We are working very hard on making sure that those targets are achieved, and we are in a good place to do that.

**Lauren KATHAGE:** Thank you. I recently visited the local landfill and future circular economy powerhouse in my electorate, where they are converting landfill to gas and then to electricity. I heard the gas singing on the top of the hill and it was a beautiful sound indeed. They are actually using some of that electricity to rent out for bitcoin miners.

**Nick McGOWAN:** You like the sound of gas?

**The CHAIR:** Mr McGowan!

**Lauren KATHAGE:** Do you see the circular economy initiatives around that sort of thing as being something that contributes to our targets or more as something that reduces negative effects of modern life, or do you see it as a key part?

**John BRADLEY:** An absolute contributor. I mentioned earlier the important role that the circular economy can play in terms of decarbonising the economy more generally. So there is the direct opportunity through the capturing of landfill gases, and some of the leading practice in Australia is occurring through Hanson quarries and LMS Energy services, who are using really advanced approaches to capture landfill gas and to generate electricity and export that back into the grid. We have also got an opportunity through the circular economy through the diversion of organics from landfill as we all start using our food and garden organics bins and we take up that four-bin system. That is helping to divert organics out of landfill and to use better streaming of those organics into innovative waste-to-energy projects like Yarra Valley Water's significant food organics generation project that they have got.

In a broader sense, as I mentioned earlier, the powerful statistics for me are about the overall approach to the circular economy in terms of reducing the amount of materials that are used in production of our services in the economy. 70 per cent of our emissions are coming from the production and use of materials, and a circular economy can help to reduce materials potentially by up to 28 per cent if we achieve all of our goals in that circular economy. That has the potential to make really big impacts on emission reduction across the economy.

**Lauren KATHAGE:** Another frontier, I guess, was raised by Ms Sandell before, which is offshore wind. Can you update us on progress with that project?

**John BRADLEY:** Yes, thank you. In offshore wind we have released two implementation statements to the market for the government to achieve its offshore wind goals of 2 gigawatts by 2032, 4 gigawatts by 2035 and 9 gigawatts by 2040. I might ask the Deputy Secretary to just speak to the latest progress and the forthcoming implementation statement.

**Elizabeth MOLYNEUX:** Thank you, Secretary. As mentioned, we are very keen to support this industry coming into Victoria and in fact Australia. It is a tried and true technology, but it is obviously new to Victoria. Victoria has the only declared area, at this point, that looks very promising – off Gippsland. The implementation statements 1 and 2 have been released. They are a really important mechanism to give certainty to the industry that the government is serious about implementing offshore wind, and implementation statement 3 is due to be published imminently to give some more structure around the expectations for any mechanism or cost support that might be required for the introduction of this industry and also expectations around things like partnering with traditional owners. I mean, I could speak more broadly about offshore wind but I am just not sure –

**Lauren KATHAGE:** Sorry, the implementation statements, what does that include? Is it sort of looking at what we need to do to get there or what the –

**John BRADLEY:** It is a really good point, one of the things we have received really favourable feedback around from the international market. This is a new market for Australia, but it is very globally significant in

the UK, Europe and the US. And there has been strong feedback to us that they like the transparency that the government has adopted in relation to the release of formal implementation statements that are indicating the positions the government is taking on specific issues.

So in our first implementation statement, we indicated the government's targets of 2, 4 and 9 gigawatts. Then we confirmed as part of implementation statement 2 the site of the port of Hastings as the construction and assembly port for the offshore wind sector, because the scale of the port reinforcement that is needed to support offshore wind construction and assembly is absolutely huge. We also identified the process that VicGrid would take to prepare for the transmission connection points, and basically you would take a coordinated approach to that and define where the offshore wind proponents would connect their transmission lines to as they bring them on from offshore. Then the last aspect, I should say, that was also in that implementation statement 2 was a program of regulatory and legislative reform that we are undertaking in three stages, including some cooperation with the Commonwealth government to streamline the pathway for the development of the offshore wind sector in Victoria.

So those formal implementation statements are released at regular intervals. We foreshadow in them what the unanswered issues are that are going to be addressed in the next one, and one of the things that the market is very interested in understanding is what approach we will take to the offshore wind procurement process, which we expect to commence and get underway in 2025 while still then being on track to deliver 2 gigawatts of offshore wind by 2032. One of the reasons we are doing all of this is to make sure that the local economic opportunities can occur, that local industry can assemble itself to participate in what are really global-scale procurement processes. Offshore wind makes onshore wind projects look very small by comparison. We know that the 13 gigawatts of identified development potential around Victoria, those offshore wind projects could generate up to 6100 jobs, both 3100 jobs in the development and construction phase and a further 3000 ongoing operational jobs. We have got a very significant program in relation to the renewable energy hub that is being progressed as part of the offshore wind program, and this is all being done in a way that is transparent to the market – to come back to your question about implementation statements – so that we can have the sharpest pencils possible when people start developing their investment plans for Victoria.

**Lauren KATHAGE:** Thank you. In a similar vein, the work that is being undertaken for the gas substitution road map – I actually had a constituent come to my office probably five weeks ago now, a retired gentleman. He drove probably 20 minutes to get to my office to meet with me, and he had had a Eureka moment that he wanted to share with me. He said, 'We've got to get off the gas.' I said, 'Well, you've come to the right place.' I was so glad, but he has retired and his concern was for younger people that could not afford to modify their homes. I said, 'Have I got news for you!'. So I was really glad to tell Barry about some of the things we are doing. So from the –

*Members interjecting.*

**Lauren KATHAGE:** Sorry, it is hard, Chair, to concentrate with the chatter over there.

**The CHAIR:** Mr McGowan, you are the Deputy Chair. I am going to ask you this once more: please be respectful towards your colleagues and witnesses at this table. The break is coming up and you can take some time out in your break. Thank you.

**Lauren KATHAGE:** You have talked a bit about the different programs that are available to electrify homes. Can you talk more broadly about the *Gas Substitution Roadmap*: where we are at on that, what sort of progress has been made and what we have got left to go?

**John BRADLEY:** Thank you. The road map, as you were saying and as we discussed earlier with the committee, was released in July 2022. We are a jurisdiction which has sought to do this in a transparent way, engaging with the gas sector and the community around the transition to a net zero emissions economy for the gas sector while also maintaining reliability and affordability. The road map is an explicit, transparent communication of government's policy and the transition steps that it is taking, because we do know the gas sector, as we said earlier, contributes about 17 per cent of our net emissions and will need to decarbonise significantly, particularly to achieve the kind of electrification uptake that is required over the period.

The road map is intended to lower bills, reduce emissions, support jobs and support gas reliability, and the first step in the road map was the removal of the barriers in the Victorian planning provisions in August 2022 that

ensured that gas connections were no longer mandatory for new Victorian homes. There are also new residential electrification incentives that were introduced into the government's Victorian energy upgrades program on 31 May 2023 and residential gas efficiency activities were phased out under the VEU in late June of 2023. Then, as you are aware, the government has announced that from 1 January 2024 a phase-out of new gas connections will apply to new dwellings, apartment buildings and residential subdivisions that require a permit.

The reason why this was a logical thing to do to protect households at a time of significant pressure on energy bills and cost of living is that going all-electric puts \$1000 per year back in the pockets of new home owners or over \$2200 with solar installed. New Victorian detached homes built all-electric will spend about \$2600 on energy bills and can save \$1200 with solar panels. A dual-fuel home would spend by comparison \$3600 per year. We also know that, as I mentioned earlier, that will also achieve a significant benefit for emissions, with a 16 per cent reduction in emissions compared to a new dual-fuel home, and over a 10-year life of the assets that is likely to be something like 29 per cent lower emissions for new all-electric homes compared to dual-fuel homes.

It is worth noting, though, that the *Gas Substitution Roadmap* is more than just measures in relation to households. There is a significant commitment as part of the government's work to fund the Australian Gas Infrastructure Group's Hydrogen Park Murray Valley project, with \$12 million being provided as part of a joint program also funded by ARENA and the Clean Energy Finance Corporation. That will see a 10-megawatt electrolyser installed in Wodonga at North East Water's wastewater treatment plant, and that will allow blending of up to 10 per cent of hydrogen into that existing natural gas distribution network in Albury and Wodonga and support hydrogen offtake opportunities for local businesses potentially to also supply hydrogen as a fuel for fuel cell vehicles. So there is a lot to be interested in in relation to the *Gas Substitution Roadmap* in terms of innovation and economic opportunities for businesses.

We have provided funding for two bioenergy projects under round 2 of the Energy Innovation Fund: \$9.3 million was awarded to Pavilion Farms to install a 2.4-megawatt organic anaerobic digestion plant at Anakie, which uses chicken litter and other organic matter as feedstock for conversion to biogas; and then also \$10 million awarded to Innovating Energy to install a 2.2-megawatt anaerobic digestion facility at a dairy processing plant in Gippsland. Sustainability Victoria is also supporting bioenergy itself, supporting a \$10 million Waste to Energy Fund, which has been made available to the sector to increase renewable energy generation in Victoria, and its projects will be completed by March 2025.

**Lauren KATHAGE:** Thank you. Just going back to the household level, the Solar Homes program – something like three-quarters of a million people over 10 years are expected to take that up. What is driving people to take up that program?

**John BRADLEY:** It has been incredibly important in terms of lowering bill pressure on households –

**The CHAIR:** Apologies, Mr Bradley. I am going to stop you there; we are running tight on time. Thank you very much for appearing before the committee today. The committee is going to follow up on any questions taken on notice in writing and responses are required within five working days of the committee's request.

The committee is now going to take a very short break, returning at 4:45 pm, before beginning the consideration of parliamentary departments. I declare this hearing adjourned.

**Witnesses withdrew.**