

TRANSCRIPT

LEGISLATIVE ASSEMBLY ENVIRONMENT AND PLANNING COMMITTEE

Inquiry into Tackling Climate Change in Victorian Communities

Mildura—Thursday, 12 March 2020

MEMBERS

Mr Darren Cheeseman—Chair

Mr David Morris—Deputy Chair

Mr Will Fowles

Ms Danielle Green

Mr Paul Hamer

Mr Tim McCurdy

Mr Tim Smith

WITNESSES

Mr Jay Smith, Environmental Sustainability Coordinator,
Councillor Jason Modica,
Councillor Simon Clemence, Mayor,
Councillor Glenn Milne,
Councillor Helen Healy, and
Councillor Mark Eckel, Mildura Rural City Council.

The CHAIR: Thank you for joining us today at the public hearing for the Inquiry into Tackling Climate Change in Victorian Communities. On behalf of the Committee I acknowledge the traditional Aboriginal owners of the land upon which we are meeting. We pay our respects to them, their culture, their elders past, present and future and elders from other communities who may be here today. I also extend a welcome to any members of the public and the media present today. This is one of a number of public hearings the Environment and Planning Committee has conducted around Victoria and in Melbourne to inform itself about issues relevant to the Inquiry. —

I will just run you through some important formalities before we begin. All evidence taken today will be recorded by Hansard and is protected by parliamentary privilege. This means that you can speak freely without fear of legal action in relation to the evidence that you give. However, it is important to remember that parliamentary privilege does not apply to comments made outside the hearing, even if you are restating what you have said during the hearing. You will receive a draft transcript of the evidence in the next week or so for you to check and approve. Corrected transcripts are published on the Committee's website and may be quoted from in our final report. Thank you for making the time to meet with the Committee today. Could each of you please state your full name and titles before beginning your presentation. Over to you.

Mr SMITH: My name is Jay Smith, and I am the Environmental Sustainability Coordinator at the Mildura Rural City Council.

Cr MODICA: Jason Modica, Mildura Rural City Councillor.

The CHAIR: Fantastic. The floor is yours, so over to you.

Mr SMITH: Firstly, I would like to acknowledge the traditional custodians of the land on which we are meeting and pay my respects to elders past, present and emerging and any Indigenous people in the room today. The First Peoples have survived and thrived on this land for tens of thousands of years, and we have much to learn from them when it comes to sustainability and climate change. I would also like to acknowledge the councillors and council staff in the room today. Councillor Modica will be co-presenting with me. I would like to thank the Environment and Planning Committee and parliamentary staff for coming to Mildura to listen to how we are working with our communities to tackle climate change.

Visual presentation.

Mr SMITH: Council has been working at a community and regional level in mitigating and adapting to the impacts of climate change for many years. Our signature project is that of the Mildura Eco Village, a 4-hectare sustainable living site that includes an education centre, the Eco House and a community garden.

Built in 2013, the 9-star rated education centre comprises a range of sustainable design features, including passive solar and energy-efficient architecture appropriate to our semi-arid region. The materials used were chosen to reduce the embodied energy of the building. Natural daylight is used to reduce electricity consumption, and energy-efficient lighting is used throughout the building. Double-glazed windows are used on all external doors and windows. It also includes water collection, conservation and reticulation as well as solar energy for power and hot water. The education centre was built to educate the community about

sustainable living practices and regional self-sufficiency. The project was supported by the Victorian Government's Sustainability Fund.

A 1960s house, redesigned and retrofitted using sustainable design elements and energy efficiencies, the Eco House is a working educational and demonstration facility. The building showcases how domestic retrofit options from local suppliers and businesses can be easily applied to your own home to improve water conservation, reduce electricity consumption and manage waste products. Originally the caretaker's cottage for the Nichols Point Cemetery, the Eco House building was relocated to the Mildura Eco Village site in 2014. The concrete building is a similar design to many homes built in the Mildura region in the 1960s. The house has been renovated to incorporate design features that modern living demands, including open-plan concepts, connections to the outdoors and modern looks. The renovation also incorporates a range of energy conservation strategies to create a sustainable family home that is both affordable and appealing, including the use of rainwater tanks; water-efficient shower heads, tapware and toilets; passive design, including building orientation; energy-efficient lighting; airlocks for heating, cooling and dust prevention; energy-efficient window treatments; as well as draught proofing and insulation.

With rises in both energy and water costs, the Eco House project demonstrates the significant savings that can be achieved through low-cost retrofitting when it is combined with sustainable living education. The broader outcomes of the Eco House project include the strengthening of community and stakeholder partnerships, leading the community to live more sustainably and to save natural resources; the reduction of household financial pressures in a region identified as being at a low socio-economic level; the promotion of local businesses that sell sustainable products; and a community that is educated and aware of local environmental issues.

The community garden is the heart and soul of the Mildura Eco Village. It includes a series of irrigated, raised and ground-level garden beds across the site. It also comprises a composting area, a fully functioning worm farm, public art and a sustainable children's play area. The community garden enables residents to come together to learn how to grow food, swap produce and enjoy the benefits of local food.

Council operates the majority of its environmental education at the Mildura Eco Village. During the last financial year over 2000 participants took part in our environmental education activities, and 547 students attended activities during World Environment Day. Council facilitates a number of environmental activities in the community, including Clean Up Australia Day, National Tree Day and the Aussie Backyard Bird Count. Council also partners with State Government agencies in the Sunray Warriors event each year, which offers primary-aged students the opportunity to engage in fun, hands-on, interactive activities that focus on environmental education. Students learn about water conservation; local biodiversity, flora and fauna; native habitats; fish species and their effect on the river; boat safety; campfire safety; the value of wetlands; and land management and recreation.

In terms of energy, council has installed 592 kilowatts of solar PV on council-owned buildings—the most of any local government in central and north-west Victoria. This includes council offices, depots, community centres, sporting and recreation facilities, libraries, art centres, kindergartens, senior citizens centres and the airport. Our largest systems include 100 kilowatts on the Alfred Deakin Centre and Mildura Airport and 90 kilowatts on the Madden Avenue service centre.

Council has also been active in upgrading the energy efficiency of our buildings to reduce our emissions. This includes upgrading lighting to LED, installing double-glazed windows, upgrading air-conditioning systems to more efficient technology and installing and operating building management systems. Like many other local governments, council has historically purchased carbon-intensive electricity from an energy retailer. The onset of increasing wholesale electricity prices, renewable energy and storage technologies as well as council's own emission reduction targets presented council with an opportunity to explore alternative methods of sourcing electricity to meet our long-term energy needs.

In 2018 council was involved in a social energy procurement project with 10 other Victorian councils and five greenhouse alliances. The project focused on understanding the risks and opportunities of entering into offsite power purchase agreements and the variety of PPAs available as well as determining and prioritising options for councils contracting energy from local community energy projects and understanding the different business models for councils to co-invest in large-scale energy infrastructure. Since that time council has explored

alternative electricity procurement options with the knowledge that our current electricity contract with our retailer expires in mid-2021. Council engaged a consultant in early 2019 to conduct a study into the feasibility of developing a large-scale solar farm to meet our long-term electricity needs. Council also joined a market-sounding exercise for a Victorian local government power purchase agreement in October 2018—a multiyear retail contract where the retailer has a direct relationship with renewable energy generators.

Mildura is innovatively leading the way as one of 48 Victorian councils to form Australia's largest ever buying group to switch to 100 per cent renewable electricity. The councils, led by the City of Darebin, have come together to drive investment in renewable energy, resulting in the pooling of 250 gigawatt hours of electricity. This is equivalent to powering 47 000 homes with renewable energy or taking 87 000 cars off the road each year, making it the largest ever emissions reduction project undertaken by local government. In July last year council decided to commit 100 per cent of its electricity load to the power purchase agreement tender stage. The tender is soon to be released. If the tender outcome is successful, council will be purchasing 100 per cent renewable electricity from July 2021.

Council, along with 15 other local governments across north, west and central Victoria, formed an important partnership to implement the largest residential street lighting project—Lighting the Regions—in Australia between 2014 and 2016. In 2015 council upgraded almost 4000 residential street lights to LEDs, which is estimated to save \$4 million and over 31 000 tonnes of carbon dioxide equivalent over 20 years. The Central Victorian Greenhouse Alliance, on behalf of 18 project partners, including Mildura Rural City Council, received funding under the Victorian Government's collaborative councils sustainability fund to scope the options to deliver a major road lighting bulk changeover program from 2019–20.

Stage 2 of the Lighting the Regions project will see council upgrade over 700 major road lights to LEDs. It is expected that this will save 6370 tonnes of carbon dioxide equivalent over 20 years and reduce council's electricity consumption from street lighting by 19 per cent, based on 2015–16 levels. As the Department of Transport has been unwilling to co-contribute financially to the upgrade of cost-shared major road lights to date, these have been excluded from the project at this stage. It is hoped that the Victorian Government will commit to co-contributing financially in the upcoming budget.

Council has partnered with Better Building Finance to offer environmental upgrade finance to commercial property owners in the municipality. Environmental upgrade finance involves a three-way agreement between the property owner, council and lender, called an environmental upgrade agreement. It provides an incentive for building owners to upgrade their infrastructure and improve the value of their property. The key features of environmental upgrade finance that make it different to traditional finance include fixed interest, quarterly repayments made via a local council charge and up to 100 per cent project finance, including hard and soft costs. Loan terms can extend from five to 20 years to maximise business cashflow. Loans are tied to the building, not the business owner, making them easily transferable if the building is sold, and landlords can split repayments with tenants, with both parties benefiting from the upgrade. Since 2018 council has facilitated seven environmental upgrade agreements, which have resulted in the installation of 280 kilowatts of solar PV. This equates to over \$300 000 worth of investment in the local economy. We are the third highest LGA in the country for the amount of EUAs signed.

Council is also involved in the Central Victorian Greenhouse Alliance-facilitated Loddon Mallee Renewable Energy Roadmap project. The project has worked closely with key stakeholders and the broader community to identify the community's vision for the role that renewable energy will play in the region, the current state of renewable energy in the Loddon Mallee and a prospectus detailing the opportunities and challenges facing the region as we transition to renewable energy. The road map will provide policymakers and industry with an understanding of the economic potential for renewable energy within the region and give the community a voice in how they would like to see this transformation take place.

The CHAIR: Sorry, just to interrupt there, is it possible for you to provide that document to the Secretariat if you have not already?

Mr SMITH: This document is currently with the Minister for public release, so not at this stage unfortunately, but it will be soon.

Cr MODICA: You cannot get one on the black market somewhere?

Mr SMITH: No. The development of the road map will contribute to a suite of individual but aligned regional renewable energy road maps for other Department of Environment, Land, Water and Planning regions. The road map has been funded through the Victorian Government's New Energy Jobs Fund and will be released soon.

Whilst council is already working to install electric vehicle charging stations at our own offices, we are also involved in a CVGA-led local government electric vehicle charging network study. The feasibility study will enable councils to understand the opportunities for a joint investment program that could see a dense and coordinated network of EV chargers across the state. This would be a first in the country—to have a state with a high density of public chargers in regional and rural areas. The project is undertaking a feasibility study for participating regional, rural and metropolitan councils across Victoria to provide guidance to councils on the factors relevant to the placement of the various types of charging stations and costing for alternative charging station network options, including considerations of technical effectiveness, impact on the local economy, attractiveness to users and community desire to participate; to understand the role of local government in charging infrastructure including options for different ownership models and options to coordinate the maintenance and management of the statewide network once installed; as well as to work with project partners to develop communication resources to promote the EV network to end users. The project includes 43 regional councils, 11 metropolitan councils, five greenhouse alliances and the Electric Vehicle Council of Australia. The project is co-funded between the local governments and DELWP and is expected to be completed later this month.

In 2018 council was involved in the CVGA-led Cool It project with other LGAs in the region to identify priority public areas that were socially vulnerable to heat impacts. The project found small towns within the region are particularly exposed to increasing daytime heat due to low levels of existing canopy cover in streets and parks and gardens—as low as 7 per cent in some towns—and high levels of impermeability.

In addition, a street tree audit conducted by the CVGA in 2016 discovered that a number of councils face significant challenges with the ongoing maintenance of their green infrastructure. A significant percentage of street trees are in decline or are expected to need replacing in the next five years. Climate change modelling projects hotter and drier conditions for the region, further exacerbating the challenge. To ensure the region can remain livable the project will ensure new investment in public tree assets is accelerated and, because of limited water and financial resources, targeted to areas that can maximise co-benefits. Council has begun increasing green infrastructure in streets with limited tree canopy cover and also undertaken a community engagement program to build resident ownership. A state-based green infrastructure fund to co-fund this work is vital in accelerating this process.

Council is also working to reduce waste sent to landfill, as this accounts for the majority of our emissions. We will be introducing a third kerbside bin for food and garden organics from July this year. The new service is expected to reduce kerbside waste to landfill by around 39 per cent.

Finally, council is being recognised for our work in tackling climate change. Last month we received a high commendation at the 2020 LGPro Awards for Excellence in the sustainability initiative category for our leadership in the renewable energy space. That is it from me. Thanks again for the opportunity to speak with you all today. I will now pass over to Councillor Modica.

Cr MODICA: Thank you. Mildura's place in the sun—how do we adapt to a new set of needs around energy production, distribution and storage and water use? Mine is a bit more of a strategic overview, and it bumps around a bit. It might be a little bit more critical than Jay's as well. What has become clearer to me is the divide within the Australian community over climate change, which has been evidenced in the debate in our community lately and across the country. I acknowledge this divide but choose to put it aside and focus on the actualities of the technological distribution and price revolution taking place in the clean and continuous energy sector and the outcomes that we can champion in the municipality of Mildura. We can choose to build a clean energy future, placing us centre to our own energy needs, where we can unbind our municipality from the well-funded lobby groups of Melbourne, Sydney, Canberra and other capitals.

We can aim—and as Jay has pointed out, we are already on the way—to transition to 100 per cent renewables, but we must have a foreseeable goal and plan and education and incentives to meet world's best practice, which can direct us in our ambitions to build smart cities, smart grids and smart homes. Individuals, communities and

corporations can aspire to be net producers of energy, not energy-reliant homes and workplaces existing on outdated technologies. Seventy-five per cent of the remaining coal-powered plants in Australia are beyond their use-by dates, and this affects us directly by having a coal-dominant view of energy production in Australia. We have lost time and time again, as our transition to an energy hub could have taken place. If we were driving cars of the same age, they would have been built in the 1960s and 70s, and our phones would still be hanging on the wall if the technology was similar.

To emphasise how deeply our energy future is being considered, Geoff Summerhayes from the Australian Prudential Regulation Authority warns that banks and directors could be liable if they fail to consider the increasing risk of carbon-intensive assets and of power stations becoming stranded. He also states climate risks are:

... foreseeable, material and actionable now.

Our region plays a part in that transition. We can generate clean, available energy immediately and, with the other technologies of storage, as Jay has pointed out, through our two houses we can do much more. In some ways 2019 was an inflection year, with advancements in technologies and start-ups set to move beyond carbon use to greater investment in renewables. A comparable crossroad we can reflect on is our consumption and use of communications and computers and phones in the year 2000, when older methods were surpassed by more sophisticated mobile technologies. We are at this point. From this point looking back it seemed to be a perfect storm for mobile technology. This just seems to be the case for renewables, and this has already begun. There are 2.23 million Australian homes with renewable energy facilities on their roofs, not to mention the large-scale expansion of solar plants in north-west Victoria. I talk about this further down, so I will just let it go.

Lismore City Council was the first regional council in Australia to commit to taking its electricity supply to 100 per cent. They also created Enova Energy, which is a community-based energy cooperative that actually offers their community access to energy generated locally, not distributed too far and at very reasonable rates. They state this model of sustainability is aligned with the aspirations of many more local councils right across Australia who are pursuing groundbreaking strategies in renewable energy, climate neutrality, sustainability and collaboration within the community, as Jay has stated.

I will just skip through this because Jay mentioned the 500 kilowatts, which I am very proud of. I will just quickly state that these sit alongside other developments in Ouyen, Balranald, Broken Hill and Renmark. Our potential as a new Latrobe Valley, so to speak, from Renmark to Balranald and from Birchip to Broken Hill and the potential of sun collection is ridiculous.

The CHAIR: Can I just chime in on that point. You are absolutely right that the Sunraysia region is exceptionally well endowed in terms of sunshine.

Cr MODICA: I like the way you put that—exceptionally well endowed.

The CHAIR: What is the state of the grid like? And is that preventing some of those economic opportunities being taken up?

Cr MODICA: You have cut off the punchline.

Mr FOWLES: It was always coming.

Cr MODICA: So, not good. But just ask again when I get further down, if that is okay.

All investment is great for our region, but we must engage in some long-term planning. I propose we endeavour to create a Murray Darling solar institute, which would seek to attract cutting-edge technologies and thinkers to embrace and guide our way through this energy transition and revolution and maybe even become a manufacturing centre.

I will just add: we had Ross Garnaut present to the Northern Mallee Leaders in November last year, and he was talking about this region becoming a manufacturing centre. As you will see, in South Australia there are net negative energy sales during the middle of the day. Why wouldn't you come out here? Why wouldn't you set up? Can we get a Toyota? It would have been nice to get a Holden or Ford—or Chrysler even—but that does not happen anymore, so I will continue on.

To aspire to something new is a particularly human trait, and what is prevalent is the hope and potential of our community to align with these things and how we can engage with these older problems. This makes me look to our tri-state region to become a local leader and lobby state and federal governments. I believe we have waited too long to be providers of our own energy needs, and the possibilities at the moment suggest we could become an energy centre with a mix of both private capital and government funding, particularly on the back of the investments that have already been made. As Jay said, we could secure a portion of land within the municipality with cross-border funding to ensure its financial capabilities and community pedigree. We could strive for energy independence—or energy sovereignty as I like to call it—within two cycles, expediting the potential to enhance our lives in our quickly changing municipality. Journalist and fellow at the Centre for Policy Development, Ian Dunlop, sums it up in the *Guardian*:

Finally, there is nothing “agnostic” about choosing energy sources when the fossil fuel industry continues to enjoy a massive subsidy, far greater than renewables, through the lack of carbon pricing—a subsidy the IMF estimates to be about 60% of coal’s market price. And this is the nub of the problem. Our climate and energy policies are ... disconnected and dysfunctional ... brought about by years of denial and inaction from federal governments of both persuasions who do not accept that climate change is happening.

...

Our antiquated electricity grids are undoubtedly in need of overhaul but 100% renewable energy grids are being constructed around the world in only a few years, providing genuine energy security and making traditional concepts of baseload power irrelevant.

This is still Ian Dunlop, by the way:

We need a new narrative built around our potential to prosper as a low-carbon society. We have the world’s best renewable resources, the science, technology and engineering expertise to seize what is the biggest investment and job-creation opportunity this country has ever seen.

What is happening at the moment is we have Carwarp, Kiamal, Karadoc, Wemen and Bannerton, which I think is over the river in another municipality but we are all within that region, and they are curtailing; they can only put energy in every other day. It is an absolute slap in the face for anybody who has chosen this area because of the well-endowed sunshine. Sorry, I am not going to say that again.

The CHAIR: Is there any media in the room? I hope not.

Cr MODICA: Because after all the investment, after all the time and commitment—Silex invested here in 2012. Actually they did the groundwork earlier, and they were going to track the sun with a much more expensive version of solar energy generation. When the other Government got to power they cut the feed-in tariff from 40 back to 20, and they just walked away. So with the curtailing of the power in our region this is happening again. If it happens once, we can shrug our shoulders and say, ‘Okay’. But if it happens a second time, why is it happening and why our region? With our SEIFA results—our socio-economic numbers—this low, why are we being ignored when all this potential is hovering around us? There is a bit more coming for power, but I will flick onto water now. Just cut me off, because I will keep going.

The challenge facing irrigated horticulture in the region—the area of irrigated horticulture downstream of Swan Hill has more than doubled since 1994 and has recently accelerated again. Water to support this expansion of irrigation has been sourced by trading water from upstream of Swan Hill. A condition of this trade requires that water from the new expansion be delivered through sealed plastic pipes from the river to the farm. Losses from these pipelines are miniscule, which is great. This expansion in the area of horticulture is not without risk. In 2006, during the drought, irrigated horticulture downstream of Swan Hill accounted for 25 per cent of all water that was available for irrigation. The continued expansion of horticulture since 2006 means that this demand has been raised to 40 per cent of allocation, under a repeat of 2006 weather conditions. With that happening it would put enormous pressure on the production in our region and have a consequential flow-on effect to the community. The flows from the Darling have diminished, and the gap is putting pressure on Victoria’s allocations. The consequential fish kills and blue-green algae put more risks on the markets and how we produce our energy with diminishing intakes into the system.

Just to explain how large the growth in our region is and how much more pressure we are putting on our water resources, the irrigable land in the Mallee catchment increased by 40 825 hectares, or 101 per cent, from 40 325 hectares in 1997 to 81 150 hectares in 2018. The net increase of 40 825 hectares was the balance of

42 000 hectares of expansion, and 1800 hectares was retired. Expansion was predominantly in the private diverter river reaches, where 39 400 hectares of expansion occurred. That just explains that there is so much more extraction with diminishing intakes, and we really sitting in a scenario where hopefully, like in the Northern Connected Basin, there will be big rains. But if our growth continues, the pressure on our wealth-generating resource will be paramount.

Most irrigation in the Mallee is directed towards perennial horticultural crops. Having the water meter at the river offtake, delivering it through pipes, not using dams to store water and using drippers to supply to individual plants all contribute high levels of water use efficiency, which once again I said is great. There are few, if any, water losses able to be gained, either practically or economically. The trade of large amounts of water and its efficient use has masked the impact of climate change over the last 20 years. We are again in drought and need good inflows into the catchment for the next irrigation season, which will commence in six months. There are also issues with broadacreage, because the rainfall is diminishing out in the Millewa. Because of climate change their per-kilo return per hectare is reducing dramatically—because of that lack of rainfall. I will keep going down. Sorry, I am not as organised as my good friend here.

The CHAIR: I am just conscious of the time, and I am sure a number of my colleagues will have questions.

Cr MODICA: How much have I got?

The CHAIR: We have about 10 minutes. We have got you through to about 10.45 am, so another 10 or 15 minutes.

Cr MODICA: OK, can I have 5? Is that all right?

The CHAIR: Yes, sure.

Cr MODICA: Quickly, with everything that Jay has presented and our region and our ability to generate, I am talking about that energy sovereignty—how do we make every house, every business something that can be self-sufficient initially and then use smart grids to go on from there? I think people are coming in later. I have spoken to them about the potential for green hydrogen, so you are doubling up there. How do we change all our travel scenarios—trains, trucks, cars and EVs as well?

Just another one: what we need in the rivers is support for the present embargoes that are in place, the widening of embargoes to cover all the Upper Darling and its tributaries and the Victorian rivers and to ensure that the embargoes stay until sufficient water flows reach the Murray. So there are really important factors that need to be held in place so the rivers are living; they are just not channels for people to say, ‘We want this water here now’, and be done with it.

Let me end with two examples of the neoliberal capitalist ideology which has driven most decisions made in Australia in my lifetime. The Menindee Lakes were empty, and they were for too long. The Victorian Government owns half of that water, depending on the volume within the system. The Darling River from the lakes to the junction have not flowed in any way close to being normal and natural since 2018. This trend began in the 1990s through overdevelopment. The catchments of the Barwon-Darling system have had so much infrastructure applied to them to divert and capture the minimal water making it through the river. It is no longer healthy, and the communities along it are no longer healthy in any way. Water via rain and anthropomorphic climate change has not fallen where it has in our lifetime. These developments have been able to utilise government money from the MDBA to increase their access to water and pumping. This is also happening on the Murrumbidgee and the Murray, which is directly affecting our irrigators. Even though that water has come in, the smaller farmers cannot cope with the price of temporary water. This needs to be understood for what it is: the failure of democratically elected people to move out of their own way—because they are getting paid full-time wages—and prosecute an argument, to the detriment of our natural world, putting your own citizens, water supply and potentially your economic prosperity at risk. That is a big call, but it has been happening on and off for the last 25 years. It is bad management via political influence over decades, plain and simple.

Example 2 is another decision clearly affecting rural communities: Mildura—or shall I call it Clement De Garis’s nominated name, Sunraysia—has had people living here for over 2600 generations at the confluence of the Murray and the Darling rivers. De Garis named the region Sunraysia as a marketing hook. He was a

quick-witted, fast-talking con man. He even wrote an opera with the name Sunraysia, I believe. It is all there. Dried fruits work here because of the intensity and hours of the sun, which is always there in the sky, except at night, obviously.

With good reason, solar became very popular on rooftops. Generating enough energy for your family was easy. Investors, businesses, conservationists and people concerned about fossil fuel emissions sought again to capitalise on De Garis's 'Sun-Raysed'. An industry was born, and billions of dollars have been spent to make the region an energy generation hub for the nation. The wave of investment in clean energy has been underway for a long time.

I will go back to the curtailing now. I am just happy to say that this is a region that should be the energy hub of Victoria, South Australia and western New South Wales. We have got all of the potential. With the right support from state governments and the right advocacy from local governments and then the Federal Government getting on board, we have every opportunity, as Ross Garnaut said, to be a manufacturing centre and a place where we can export either green hydrogen or the energy we produce from dawn till dusk. Thank you for your time. Sorry, I went on a bit.

The CHAIR: Thank you to both of you. That was a very comprehensive presentation. I am particularly interested to know what might be done to unlock Sunraysia's solar capacity. What are the particular things that need to be done? Are there particular investments that need to be made into the grid? Are there particular lines that do not exist at the moment that should? What is it that this Committee might recommend to the Government in terms of investment to unlock that capacity? And I completely accept that you are not network engineers.

Cr MODICA: Yes. There are two things that come up for me. The Wagga to Robertstown connection, which would join Buronga and Red Cliffs, would give us that opportunity to export more energy. The other one, I think, is the western connector, which would give us the potential to export more solar—not so much in the Mildura municipality, but if we did have more solar down there, we could still give it away.

We have a colleague who worked at Kiamal—I believe it is the synchronous converter.

Mr SMITH: Yes, I think so.

Cr MODICA: A couple of synchronous converters, which even out the energy waves that get put into the grid, would help. The difficult thing about that is that we are at full potential already with the solar farms that I have mentioned, but there are five or nine more lined up ready to go. The other thing that I would suggest is that if we could have a Hornsdale-type battery placed close to this region. That would be the immediate thing. Let us get Elon here with his 100 days and all that curtailed energy straight into a battery that we could utilise at cheaper prices to help alleviate those lower socio-economic issues that we have today.

The CHAIR: Or, indeed, putting that electricity down the grid at night when there is more capacity potential.

Cr MODICA: And, to me, that is the balance: how do we work in with that idea that we need capital and we need investment but that we have certain issues here that could also be helped?

The CHAIR: So those investors that you spoke about that I presume have planning approval—is there a concern at the moment, as we sit here, that they will not actually deploy that investment and build those farms right now because of the limitations of the grid? Or do you think they have a level of comfort that the grid is capable of supporting them, but perhaps beyond that is where the difficulty comes? What are your observations as locals in the community?

Cr MODICA: Mayor Clemence would like to answer, if that is okay?

The CHAIR: Sure, absolutely.

Cr CLEMENCE: If I could just add to the conversation, Simon Clemence is my name. I am the Mayor of Mildura. There is, or was, potentially \$4 billion worth of investment in solar to come into this area, and that was a couple of years ago. We do need the interconnector to run from Kerang up to here. In fact the Kerang interconnector needs to be upgraded. It is 220 kilovolts, but it needs to be 500. That investment is not coming

into this area, because of that. AEMO estimates between seven and eight years to actually build that infrastructure, which is just crazy. If that was China, it would be done in a week.

The CHAIR: Yes. Well, they built a hospital in a week.

Cr CLEMENCE: That is right. Their standard line is eight years because they have to get all sorts of approvals. But the line is already there, so most of those approvals are not needed; it is just upgrading the line.

The CHAIR: So you have identified one line. You have identified the north-western line? What was it?

Cr MODICA: The western connector, but it is the Wagga to Robertstown which is an important one too.

The CHAIR: Yes.

Mr FOWLES: Are there any studies in the field about this? Is there any summary of the issues?

Cr CLEMENCE: Yes, AEMO have done a lot of work, and there are about four or five different interconnectors that they are considering at the moment. Kerang is only one of several, so we are not even necessarily going to get approval.

Mr FOWLES: In terms of interconnectors—yes. But in the totality of what you might call grid issues, clearly this situation that you referred to, where you are being scaled back, is just nonsense. We are trying to move to a renewable energy future, and we have actually got, effectively, panels idling—that is just bananas from our perspective. We have already seen some legislative change in the Victorian Parliament just last week in relation to this, but it would be useful, I think—and not so much in your oral evidence—if there is a summary of the grid issues out there so that we can make recommendations back to Government about what the priority projects are. If you had a blank sheet of paper and a blank cheque book—and I emphasise that we have neither of those things, but if you had it—what would you actually do to give investment certainty to that cohort?

Cr CLEMENCE: Okay. AEMO is the regulator; they are the people that have all of that information. They can provide you with that.

Mr FOWLES: So they have the information about stuff like whether a battery farm would be really helpful as well?

Cr CLEMENCE: They would have information about all of that, yes.

Mr FOWLES: Okay. They have already given us some evidence, but there is some regulatory inertia that attaches to their—

Cr MODICA: There are concerns that AEMO, particularly in Victoria, marks its own homework. It is a little bit like the MDBA. They sign off on it, but they also are the regulator, which is a concern too.

The CHAIR: You are absolutely right; it is a messy area of public policy. In effect what Will is asking for is a map of Victoria and the Sunraysia region, and if you could draw some lines where you think that would unlock your investment potential, that would be of some benefit.

Cr MODICA: I have seen a document about the green hydrogen, and I believe they have that map. I do not know about the AEMO stuff, but I know the two that I have mentioned were spoken about during the federal campaign last year. But they are not just an idea; there actually is a basis to them.

Mr FOWLES: Could we ask—if it is possible and it is not too onerous—if you could locate those source documents or point us in the right direction. Our secretariat will assist with the research if necessary. It would be helpful for us to have that documentation in our report.

Mr HAMER: Can I ask a related question on, I suppose, the region's potential as a net energy exporter but more at the local level. You mentioned potentially being a high energy use manufacturing hub or options for research and development, where it would probably not rely so much on the transmission because you are using the energy, effectively, onsite. What are the barriers, in your mind, to actually making that happen? Or what

could the State Government do to actually encourage that level of investment? Obviously there is probably a Federal Government overlay as well, but from a state perspective are there measures that the State could take that could assist that process?

Cr CLEMENCE: The first issue we have already discussed, and that is line capacity. The investment, if the line was at a reasonable capacity, would come. The \$4 billion that we spoke of—those people are not going to go away in eight years, if it takes that long, because the sun is still here. So it will still happen—except at night, as my colleague pointed out.

Cr MODICA: Do not repeat that, Simon, it does not sound right.

Cr CLEMENCE: The investment will still come; it will just come at a much later time. But what will then stop it from being used here and creating a much more viable space here, particularly in relation to manufacturing and so on, is investment, so we need massive investment. If you overcame that first problem and you then had massive amounts of solar farms—I think the biggest we have got here is at Kiamal, which is about a million panels, but we could do that 30 times over without a problem if we had the capacity. Once you have got that, the investment will also come because you can then start turning things like water into hydrogen. You can then start throwing away your electric car stations and having cars that just run on hydrogen, and all that comes out of the exhaust is a little bit of water vapour.

The CHAIR: So the Japanese car industry—the Japanese are particularly keen on hydrogen. The European Union is going electric and so on and so forth. Hydrogen can be a clean energy if it is produced using clean energy. It can also be produced using coal, which is defeating the point.

Cr CLEMENCE: And diesel, yes, which defeats the point.

The CHAIR: Yes. It just seems to me that if a large part of the Australian car market is Toyotas—and I suspect if I walked down the street I would see half a dozen Toyotas just out on the street here, particularly because of farm applications and the like—some region somewhere in Australia might take advantage of the renewable energy opportunities that they have to generate hydrogen. It seems to me your region would be well-placed. Have you, as a council or a community, started to think about what steps need to be put in place, potentially, to be Victoria's or Australia's hydrogen-generating region?

Cr CLEMENCE: We have only just started having conversations. We had Professor Garnaut come up and talk to us about those possibilities. Those possibilities were a bit pie in the sky to us previously, but now we are seeing that there is an option for us. It is down the track, but there is a lot of infrastructure that has to be built. Converting water into hydrogen gas is a very electricity-intensive process if you use electricity, so we would need a lot of solar infrastructure here to be able to start that manufacturing process. But as I said, if you build the infrastructure, the investment will come.

The CHAIR: Before we look at hydrogen we need to sort out the grid issues—that is a must. If we put in—

Cr CLEMENCE: Then the investors will come in relation to solar, and then the opportunity arises, 'Hey, look, we can actually do something that people have only dreamed of'.

Mr FOWLES: But hydrogen manufacturing could be an off-grid exercise, couldn't it?

Cr CLEMENCE: So we have already have a potential investor.

The CHAIR: Do you just want to take us through that?

Cr CLEMENCE: I will ask Councillor Glenn Milne to come on up.

The CHAIR: All right. There is a spare microphone over here, Glenn, if you want to contribute. Just introduce yourself for the purposes of Hansard.

Cr MILNE: I am Councillor Glenn Milne. I have not prepared anything, but I know that there is a company—I have spoken to one of the fuel companies, and they have had people talking to them about producing hydrogen in the area. They are just trying to develop a market to see how they would sell it and who

would be interested in doing it. There is no proposal put forward to council or anything at the moment, but they definitely are looking down that path.

Mr FOWLES: But the point is that there is a grid application—that is, solar feeding electricity into the grid for use in all of the usual ways—but then there is potentially this off-grid application, where you could use solar in a contained sense to convert water into hydrogen?

Cr MILNE: Yes. I am not sure of the exact process that they are looking at using, but it is for use in motor vehicles. That is what they want to produce the hydrogen for, and they are looking for a market and how they would sell that.

The CHAIR: I suspect the application of hydrogen will be (a) motor vehicles, but also trucks, tractors and those sorts of things. As I said, the Japanese are particularly keen on that, and I suspect you will not find a new car produced out of Japan within a decade or so that is either petrol or diesel. That is how quickly it is going to arrive. In sorting out the grid—if it is going to take six or seven years—perhaps if we do not think about it carefully and get on with it, those opportunities may well miss us or miss the region.

Mr FOWLES: Can I take us to another area?

The CHAIR: Yes.

Mr FOWLES: I will give you, at the end of this, a couple of questions on notice, because we are short of time, but I did just want to explore, in your oral evidence, the EUF. This is not a scheme that I was familiar with until your submission. That set of installations, circa \$300 000—how would you characterise that uptake, or how would you characterise the success of that program?

Mr SMITH: I think from our perspective it has been quite successful. As I mentioned, we are number three in the state for the number of EUAs signed. It has more recently opened up Australia-wide; previously it was just Melbourne, and then it was expanded to Victoria.

Mr FOWLES: And it is a Federal and State co-funded initiative; is that right?

Mr SMITH: As far as I understand—

Mr FOWLES: Well, in terms of the Victorian one.

Mr SMITH: Yes.

Mr FOWLES: Presumably we are not funding New South Wales councils out of Victoria.

Mr SMITH: Yes. But obviously there is a lot of opportunity to expand that current program, even to the point of looking at opening it up to residential households as well.

Mr FOWLES: In terms of the program design, why is there a third-party lender involved? Why wouldn't it just be the case that council signs off on a particular project and then dumps the number into a spreadsheet and comes out with a rateable amount?

Mr SMITH: Well, council is not a lender.

Mr FOWLES: Sure. Sorry, but how does the third-party lender—

What is their precise role in that? Because you have got a borrower who is repaying the money to council and the funds are advanced by council to the lender. Is that right?

Mr SMITH: Yes, council essentially acts as the middle person, so we collect the money from the commercial property owner and then pass it on to the lender.

Mr FOWLES: Just straight through?

Mr SMITH: Well, essentially, yes.

Mr FOWLES: So it de-risks the loan because you have taxation power and that de-risks the lender?

Mr SMITH: Yes, that is correct.

Mr FOWLES: Is there still an interest rate? There is still an interest rate applied by the financier, presumably.

Mr SMITH: Yes.

Mr FOWLES: And what have the effective interest rates been for these borrowers?

Mr SMITH: I am not across that detail, but it is below the market rate.

Cr MODICA: And it is the Melbourne sustainability fund?

Mr SMITH: It is now the Sustainable Australia Fund.

Cr MODICA: But most of the projects that go ahead here are net positive, so they are ahead, but it just does not happen unless—

Mr FOWLES: It strikes me that the innovation here is effectively attaching the loan to the building, not to the owner.

Mr SMITH: Yes, that is it.

Mr FOWLES: That is clever, from my perspective. That is the innovative bit that, I think, has real potential to roll these things out, because it de-risks it for owners about, ‘Am I ever going to get a pay-back on this thing? Do I have to own it for 10 years to get the money back?’. Well, if the loan travels with the building, then that does not matter so much. If I could just ask—without giving you too much homework, Jay—given you asked for a state-based green infrastructure fund, have you got any particular thoughts about that or is that literally the extent of your—

Mr SMITH: I might have to take that one on notice.

Mr FOWLES: You just want one? Yes, you can take that on notice, but if there is something in particular—if you have a particular view about how that ought be structured—if you would not mind just writing to the secretariat with that.

The only other one that I was just interested in was your preparedness for the fourth bin that is coming and your experience, given your proximity to the border, of how much landfill is currently coming from interstate into the municipality, if any.

Mr SMITH: That is a good question. I am not across that detail myself.

Mr FOWLES: Perhaps if you take those two on notice as well and then cycle back to us—at the risk of blowing up your week.

Cr MODICA: Just a comment, too. With the environmental upgrade agreement, particularly with larger businesses that are probably a little older than me, when you go to them with what looks like a deal that is too good to be true, that has been the response: ‘I’m not sure. Why is there a third party?’. We spoke about it from day one when I got onto the council: ‘Why aren’t all the sheds covered with solar panels behind the meter so they can offset their costs of cool rooms or whatever they’re using in there?’, and it has not quite clicked yet. I reckon it will, but there is—‘pushback’ is a hard word, but that is it. I do not think people know enough about it or feel comfortable with that transition. As you said, it is successful from your point of view, but there is much more potential to do that out there as well.

The CHAIR: Terrific.

Mr HAMER: In relation to your eco village—and I know that we are going out there later—what was the cost of setting up that village? And I guess the second question is: do you have any, I suppose, evidence of what

the take-up of the initiatives is? Is that through planning applications? ‘Are you able to measure the success of what you have set up in terms of what is actually out there on the ground in terms of the take-up?’

Mr SMITH: I am not across that detail. I am not sure if there is anyone in the room that can answer that. I might have to take that one on notice.

The CHAIR: Can I just ask: the *Planning and Environment Act* in Victoria was written a long time ago and does not in any way at all mention the term ‘climate change’; if we wanted to see more sustainable property developments going forward for residential purposes or for commercial purposes for that matter, is it best to be dealt with through amending the *Planning and Environment Act* to mention things like climate change and sustainability and the like or is it better to be done through the building code, or should it in fact be done through both?

Cr CLEMENCE: My view would be that you would start with the hierarchy of legislation, so I would certainly be putting it in the higher levels of legislation, and then it would spill down into the lower regulations and Acts and so on. But if you do not have it enshrined in legislation at a higher level, then there is less push, if you like, or drive to have it addressed down lower.

The CHAIR: So if we were to put it into the *Planning and Environment Act* and then other codes like the building code or building regulations or building Acts, that would ultimately obviously lead to more sustainable private dwellings from an energy perspective.

What about planning schemes? I noted yesterday when I was driving into town that Mildura seems to be going ahead. There are lots of new developments and the like, which is great. Which is the best way to ensure that new developments are as sustainable and climate friendly as possible, given the challenges? Should we allow councils to amend their planning schemes in an ad hoc way, noting some councils will be better at that than others? Or should that be done through an intervention by a planning minister or the Parliament through ensuring that across the whole state developers are considering things such as appropriate stormwater management, tree canopies and all of those things? Should we be doing that more centrally from a State Government perspective, what is your—

Interjections from gallery.

The CHAIR: If you would like to add something, please come to the microphone and introduce yourself.

Mr FOWLES: You will all get a turn. I promise.

Cr HEALY: Hello, I am Helen Healy, Councillor on Mildura Rural City Council. Our emissions per year in our municipality are 1 million tonnes, and 50 per cent of that is electricity. I think that having some input into the planning law and rules around how houses are built—and developments—in our municipality is critical. When you go to the eco village later today, have a look at some of the building developments with no eaves and the amount of electricity that is being wasted in the houses. If we could have some input into a few basic things like double glazing, like insulation and like putting a verandah up, for God’s sake, that would really help reduce our emissions in the area.

The CHAIR: So the—

Cr CLEMENCE: Sorry, can I just add to that answer?

The CHAIR: Yes, sure.

Cr CLEMENCE: Just in relation to whether it is the planning minister or whether it should be just local government planning rules and regulations, I think you need to start with the planning minister. Just as we were talking about with the legislation, you need to have the planning minister come out with some guidelines in relation to the whole state and the fact that we as councils should be looking at initiatives in response to climate change from a planning perspective. But I think you also need to recognise that each council is different in as much as their geography is different, their climate is different and so on, so stepping down from the Minister and his direction, you then need to allow the councils to respond in a way that suits their council specifically. What we need to do here in Mildura may be different to what you need to do in Baw Baw shire.

The CHAIR: The same technology might be for a different perspective. I am just thinking out aloud: double glazing if you are in Mildura is very much to keep the heat out; if you live in, let us say, Ballarat, it is to keep the heat in. The same technology might have different purposes, but there might be a whole lot of other things that you would consider obviously here in the Sunraysia region, in terms of energy and all of that, that you might not somewhere else in a different part of the state, such as cool climate.

Cr MODICA: I also think it is important that it is at that higher level because if you speak to developers and they say, ‘Oh, you just lose your return on investment’, but you say, ‘If you calculate it out over 100 years and what you save’, they say, ‘Well, that’s a bit different then’. So it is really important that it has that higher level of clarity so that we can start aiming towards building things that are cheaper in the long run.

Mr FOWLES: Do you have any concern about any impacts on housing affordability of mandating higher and better standards?

Cr MODICA: It would be a concern, for sure. How do you use the carrot-and-stick method to get people to do it initially so that it just becomes normal after five or six years?

Cr HEALY: And it is an educational consideration, too, in so far as if you do it now, look at the cost savings along the way.

The CHAIR: Just thinking out aloud actually about the environment upgrade finance, maybe there is a way in which those additional costs could be built into the rate and paid back over a period of time. So it does not have an upfront cost to the first homeowner; it is spread out over a number of years—maybe 10 years or some other figure. Maybe there is a way in which we can have a higher standard with that cost ameliorated over a longer period of time and maybe by a number of sets of owners of that property.

Cr MODICA: Even retrofitting existing homes, like the old cemetery building, actually gives a little bit of a spike to the economy, and you are saving on carbon emissions as well, so actually it is a win-win if you could get people to pick it up and move with it.

Interjections from gallery.

The CHAIR: Are you a councillor? Yes? All right. Maybe someone can swap out. I do not think we have had all of the councillors present to us before.

Cr ECKEL: We are pretty proactive, Mr Chairman.

The CHAIR: Can you please just introduce yourself?

Cr ECKEL: I am Cr Mark Eckel. I have been a councillor for five terms now, and the reason that I want to come forward is that you have hit the nail right on the head as far as planning is concerned. I have been saying it for years, and I want you to record this: self-determination in planning—we need it, because we are different from any other municipality and every other municipality would say the same about their particular council. The issue comes up all the time. We have pretty strong debates at council meetings in regard to this very issue because of course we have to walk the line and do the right things by our planning administrators up here, but we have to go outside that, and being—

Mr FOWLES: Sorry. Self-determination sounds lovely as an abstract goal, but what aren’t you allowed to do at the moment that you would be doing were it not for some state constraint?

Cr ECKEL: The MOIA—the Mildura Older Irrigated Area—for instance: I take a line from what the Mayor said in regard to that it must go to the Minister, but then the Minister can overturn what his planners tell him too, as has been done by the current planning minister. That is around the growth area in the MOIA and the opportunity of dividing up land to maintain the sustainability of that particular property into the future, whereas the Government do not look at it that way. They say—and I will just give you an example—‘Well, if you take a third of an acre out and put a house on it, then that’s taking up prime agricultural land’. From my perspective—and it is only my perspective, and I have had plenty of councillors before me that have had the same perspective—the issue is that because of our multicultural districts, built on the Italian community and built on the Greek community, who believe in the sustainability of family and the sustainability of their businesses, they

need to stay with the family in the operations of the property, so they want a third of an acre next door to Nonno and Nonna and to stay on the block and work the land.

The CHAIR: So this is putting an additional dwelling on—

Cr ECKEL: Existing.

The CHAIR: an existing agricultural business?

Cr ECKEL: Yes.

The CHAIR: I assume predominantly grape.

Interjections from gallery.

The CHAIR: You will just have to come up to the microphone.

Cr CLEMENCE: Can I just say that, with all due respect to my fellow councillor, he does not represent the entire council. I believe there would be inherit risks in having self-determination within council in planning matters because it would depend on who is on the council at the time as to whether you get good or bad decisions.

The CHAIR: Very good. We have run way, way, way over time. I do appreciate your time, and we look forward to our visit to your eco village this afternoon. Thank you.

Witnesses withdrew.