LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into Electricity Supply for Electric Vehicles

Melbourne – Friday 13 February 2026

MEMBERS

Georgie Purcell – Chair
Richard Welch – Deputy Chair
John Berger
Gaelle Broad
Katherine Copsey
Moira Deeming
Tom McIntosh
Evan Mulholland
Sonja Terpstra

Necessary corrections to be notified to executive officer of committee

WITNESSES

Aaron Gray, Lead, Projects Energy, South East Councils Climate Change Alliance; and

Pete Mercouriou, Chair, Barwon South West Climate Alliance.

The CHAIR: I declare open the Legislative Council Economy and Infrastructure Committee's public hearing for the Inquiry into Electricity Supply for Electric Vehicles. Please ensure that mobile phones have been switched to silent and that background noise is minimised.

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

To kick off, we will have committee members introduce themselves to you, and we will start down this end with Mr Berger.

John BERGER: Thank you, Chair. John Berger, Member for Southern Metropolitan.

Tom McINTOSH: Tom McIntosh, Member for Eastern Victoria.

The CHAIR: Georgie Purcell, Member for Northern Victoria.

Moira DEEMING: Moira Deeming, Member for Western Metropolitan.

Gaelle BROAD: Hi. I am Gaelle Broad, Northern Victoria Region.

Katherine COPSEY: Katherine Copsey, Southern Metropolitan Region.

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

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

For the Hansard record, could you please both state your full names and the organisation you are appearing on behalf of?

Aaron GRAY: Yes, Aaron Gray, appearing on behalf of SECCCA, or South East Councils Climate Change Alliance, and on behalf of the Victorian Greenhouse Alliances more generally.

Pete MERCOURIOU: And I am Pete Mercouriou, Chair of the Barwon South West Climate Alliance and also Senior Sustainability Officer at the City of Greater Geelong.

The CHAIR: Wonderful. We now welcome your opening comments but ask that they are kept to around 10 to 15 minutes to ensure plenty of time for discussion and questions.

Aaron GRAY: No problems. Thank you. We are here representing the Victorian Greenhouse Alliances. There are eight regional partnerships of local governments and statutory agencies that have driven coordinated

climate action across Victorian municipalities for over 20 years. Collectively, the eight organisations represent over 60 Victorian councils.

Local governments have been early initiators and implementers of electric vehicle charging infrastructure through initiatives such as Charging the Regions, and they continue to play a critical facilitation role through the development of regional charging frameworks, road maps, kerbside charging trials, fleet transition strategies, EV integration projects and trials, and community EV transition plans, with a focus on access and equity. While these initiatives have been successful in addressing barriers to the early adoption of EVs, policy and planning leadership and coordination from state and federal governments is needed to accelerate EV demand and charging infrastructure while managing the impact on electricity supply.

SECCCA itself is a partnership of local councils delivering practical, evidence-based climate initiatives for the communities of south-east Melbourne. We stretch from Port Phillip down to Bass Coast, taking in Mornington Peninsula, Cardinia and the councils in between. By working together, we achieve economies of scale, strength and resilience and accelerate climate resilience, helping create more livable communities and more affordable energy-based climate initiatives to protect those communities. SECCCA councils are proactively transitioning their vehicle fleets to electric vehicles and supporting broader community uptake. To succeed, EV charging infrastructure must be rolled out strategically, equitably and in partnership with state government, DNSPs and the industry.

Just an overview of some key themes within our submission – the rollout of charging infrastructure needs to be well planned and integrated across all levels of government and industry. Charging infrastructure is more than just a local issue. It should be mapped collaboratively and needs to be planned with a regional lens rather than on an ad hoc basis. Workplace charging has a real potential to be a key enabler. It helps support residents without off-street parking, provides affordable slow charging options that reduce strain on the grid for people without off-street parking and gives an option when people are leaving their car during the day when the sun is shining. That daytime charging is critical as it aligns with solar generation, reduces grid strain and supports equitable access. Relying solely on the market runs the risk of higher costs for all. EV fast charging has its place, but we do not want to see this as the sole solution as it will ultimately place extraordinary strain on the grid, which will cost a lot of money. DNSPs need to be more involved in facilitating the planning of the network to utilise the capacity that is already there and available.

Councils are already leading the way in supporting the EV transition. Councils across the regions are proactively transitioning their fleets to electric vehicles as part of broader net zero commitments. Local governments are ready to scale EV adoption, but the charging rollout must be strategic, coordinated and supported by the right policy settings, including – and we congratulate the government on this – the planned rollout of secondary metering, which will help better facilitate variable tariffs and hopefully drive better consumer behaviour to see people charging when electricity prices are cheap and there is surplus capacity within the grid.

Grid and infrastructure challenges are significant. Councils face significant constraints with grid capacity and connection processes. Access to the grid remains a barrier, particularly in the older suburbs and high-density areas. As an example, the rollout of pole-mounted EV chargers has been hampered by grid constraints, and I know we will hear from councils later in the inquiry, but it has severely limited available locations. In many cases over 50 per cent of poles were deemed unsuitable because of power constraints in those higher density areas. With this in mind, technical integration, including smart charging, load management and data reporting, requires clear standards and support. Significant efficiencies could be gained if the DNSPs were more involved in the planning and provided councils and other participants within the market with information about what chargers can be accommodated where and what technical requirements would be required for those chargers.

Councils also face challenges from competing state government policies. Councils are trying to facilitate affordable and accessible EV charging to encourage uptake, yet charge point operators and councils face potentially significant costs compared to the revenue from slow charging. This comes from the pole licence fees payable to the DNSPs and potential land tax on car parks, which are then leased for commercial purposes. Proposed congestion levies on car parks in inner-city areas also have the potential to add costs for councils not currently considered in the agreements being negotiated. It is recommended that EV parking bays be exempt from these levies and charges and that the state extend the temporary cap on fees that DNSPs can charge for access to the poles.

On an equity and access point, a large portion of inner-city residents live in apartments or homes without off-street parking, limiting their ability to charge at home. Street parking is limited. Encouraging charging at workplaces and public destinations such as train stations or other places where people leave their car for extended times during the day will help address this inequality. This applies equally further out, where travel distances to get to work can be significant. If we want to avoid people charging as soon as they get home, more workplaces are going to require affordable EV charging for people to plug in during the day and access that really cheap solar energy that we are seeing in the middle of the day, rather than having them get home and plug in the moment they pull into their driveway out of habit and start charging. Incentivising these chargers to do this during the day rather than when they get home is going to be essential to making this affordable.

Encouraging EV ownership, including the facilitation of bidirectional charging – education is critical in building community confidence. It is really easy to say no. It is difficult to build confidence in people to go and invest what is a significant purchase for them in a new electric vehicle if they do not see the infrastructure there available for them to use. It is very easy to push that decision down the road, and the reality is that every new car purchase now will basically be on the road in 2045–46, when we are hoping and as a state aiming to be at net zero.

For us, we see that there is a critical role of state government. The Victorian government has a critical role in incentivising charging infrastructure, particularly in workplaces, apartments and regional areas. There are going to be a lot of areas where the market is going to look after it and will do it, but there are going to be a lot of areas where the market will not. SECCCA commends the state with their work with the DNSPs to enable their participation in pole-mounted charging as a trial. We think the more participants that are able to access this market and see what works, the better off we are going to be, and also opening up the secondary metering options, which will open up more businesses to be able to put things like electric vehicle charging, which they can turn on and off, onto a separate tariff and a separate meter to better benefit from cheaper wholesale energy prices. With that, we will hand over to questions.

The CHAIR: Wonderful. Thank you so much. Members, we will do the same as yesterday – 5 minutes each and then go round again if there is time. And we will kick off with Mr Berger.

John BERGER: Thank you, Chair, and thank you both for your appearance this morning. I am interested in consumer behaviour. We hear a fair bit about it and when people are going to hook up their vehicle and at what times and what influences, and all of that, and given that what we know now with the fossil fuels, when you drive past a petrol station there are a number of factors – it could be price, could be the amount of people that are currently in the station at the time and your availability or your time yourself. What would be some of the things that you guys would see as consumer behaviour that might be useful in the report further down the track?

Pete MERCOURIOU: Yes, it is a good question, Mr Berger. Primarily, obviously we have got early adopters, with about half a million EVs on the road nationally at the moment, which is quite slow uptake in comparison to the UK and Europe. But those trends, in terms of purchasing EVs purely, is on the rise. I think last year 10 per cent of new purchased vehicles were EVs. So that consumer behaviour is changing, primarily because of a lot of work that local governments have done to push EVs and EV adoption, and that has been driven by consumer sentiment and climate action plans that 41 of 79 local Victorian governments have.

Tailpipe emissions and transport emissions account for about 20 per cent of most local government portfolios, so with that in mind, you have got a lot of community groups who are really trying to educate the public about EVs. Then you have got almost like a new phase of viewing EVs – it is not just a mode of transport, it is essentially a mobile energy asset. So if you have got the ability to plug in your car at home – they have done trials in the ACT and in South Australia – you will be able to sell the stored power in your car onto the grid at any given time, particularly if you are connected to the DNSPs properly, at the right time, so that dynamic pricing throughout the day is critical in terms of getting more consumers onto EVs to enable them to sell that stored energy if they do not need it. So in terms of behaviour, it is changing quite dramatically.

We are seeing probably more uptake of plug-in hybrids, mainly because of distance travelled. But if you were over the age of 55, primarily at home, 60 ideally, what are you using that car for? How far are you travelling? The average car trip in Greater Geelong is about 7 kilometres. Now, I would suggest 7 kilometres is not that far. It could be more beneficial to promote active transport, public transport, more kids on bikes. That is one way of looking at it too, so it is really changing, from an education point of view from these community grassroots

campaigners, about what you are doing in your car and where you are going. That is being filtered through, and I can see that now, talking with our local sustainability groups across Geelong. You are getting heaps of people turning up to Mildura, which wants to be a destination EV-charging place, and they are doing great work in educating the community. So in terms of behaviour, that is probably changing faster than when we had solar uptake in 2008–09, which we were part of at the same time. So yes – Aaron?

Aaron GRAY: I think with regard to customers and what will drive their behaviour, it is going to be variation in pricing. I think we underestimate the general intelligence of society and how they will actively engage with something, particularly when it is made easy, if you put it in front of them. We have had some retailers talking about potentially providing tariffs as cheap as 8 cents, inclusive of the network tariff, for the middle of the day for a 3- or 4-hour period. If you park your car at the workplace and you can plug it in and charge it – even if we called it 10, 12, 15 cents – and you know that you are paying 30 to 40 cents for your electricity at home, you are probably going to do it at work if it is there and it is available. Potentially at the same time the workplace can make a profit out of doing that and be seen to be providing a service. But we need to facilitate, we need to increase the education and we need to enable the infrastructure to make that happen.

John BERGER: I suppose when you look at your power bill, it has got the off peak, peak – my eyes just glaze over it. You just do not try and look at it and try and rationalise what it all means. I suppose that is the trick to try and get people to understand what that all means in terms of what it means for charging an EV. I think that is part of the process that will need to be seriously looked at if you want to get more of an uptake for people to understand the behaviours of how you might do it.

Aaron GRAY: Yes. There are a lot of retailers working on automated equipment to better manage this for people, and that technology is really going to help people because it becomes more set-and-forget.

John BERGER: Thanks, Chair.

The CHAIR: Thanks, Mr Berger. We will go to Ms Copsey.

Katherine COPSEY: Thank you. I am really interested to pick up on the point that you raised around the need to not lose sight of alternatives to private vehicle use as we go through this transition. I think relevant to a lot of local government areas is the role of shared transport in this transition and particularly how we can assist in electrification of shared transport fleets. Is that something that SECCCA has been looking at working on?

Aaron GRAY: Not specifically. It is a really good point though, and it is something where the challenges around pole-mounted charging and kerbside charging in general are things that councils could, with state government support, help address. In conversations councils are having with companies like GoGet, GoGet cannot put electric vehicles in their fleet at the moment, because the allocated car parks that they have got for people to drop off the cars and leave them in are on the ends of streets or in locations where they cannot access an electricity supply, and they cannot of their own accord go and put in an electric vehicle charger without going through an extended process. They are also often reluctant to invest in that infrastructure because demand for these vehicles moves. Sometimes they do not actually want to continue with that car parking spot, because it is not getting a lot of use, so they want another one somewhere else. That is one of the really big challenges with not having ubiquitous levels of slow EV charging available. If we are only focused on fast charging, as a general rule the market is delivering in the locations where the demand is. We are getting lots of requests for expansion of sites from two bays. They are now saying, 'We only want to do six bays, because that gives people confidence.' That is great for them. They can make money off the fast charging, but it does not help with these sorts of scenarios where people are getting a GoGet for 2 hours, 3 hours. They do not want to spend, even if it is a fast charger, half an hour of that time plugged in waiting to charge; they want to get their shopping done or their trip done or whatever it is.

Pete MERCOURIOU: I just think, to your point as well, it is much more difficult in regional centres, particularly in like Warrnambool, Golden Plains. On the outer edges or the periphery of the city, I suppose it is a bit easier to have that shared access to transport, whether it be train, bus or whatever. But I know at Geelong there are constantly conversations about extending the train line down to Torquay because that area is growing quite ridiculously. But if you are going to Apollo Bay, if you are going to the City of Warrnambool, it is much more difficult for that public transport element to be universally used. For similar reasons GoGet do not find going into those spaces profitable, so they will not be going. There is an equity element with the EV transition,

particularly when it comes to active transport and public transport. However, with shared transport, when we are talking about light passenger vehicles, it is going to be a bit challenging because you are having to change that type of behaviour. We are all accustomed to pretty much driving our own car, and that is not going anywhere. How much effort and time do we put into something like that as a local government representative or an alliance representative, how much time does a local climate and sustainability group put into that or is there something else that we could be doing with our time to enable more EV uptake? That would be working with distributors to improve and unlock those abilities of an electric vehicle. So really the grid and an improvement of the lower voltage lines will assist in that equity argument about access.

Aaron GRAY: And just to be clear, for our inner city councils their primary focus is still number one active transport and public transport, because that has the greatest climate impact from that side.

Katherine COPSEY: And congestion.

Aaron GRAY: Yes, and congestion.

Katherine COPSEY: Excellent. Thank you. My next question has gone out of my head, Chair, so I might pass to the next.

The CHAIR: Thanks, Ms Copsey. We can come back to you. We will go to Ms Broad.

Gaelle BROAD: Thank you very much for appearing today. It is useful to have your insights. I am just interested: there has been a lot of talk, and we heard it yesterday, about subsidies required, and there has certainly been a call for that to continue with the purchase of vehicles. Then we have heard about the tax benefits that apply to EVs. There have been calls for subsidies of education programs and subsidies to retrofit apartments, and I guess councils are behind the push, in part, as you have said, for people to purchase EVs. But from what I have read it seems councils are not able to afford the costs involved, so I am just interested particularly in the Victorian perspective – we are spending a million dollars on interest every hour: who pays for the upgrades? We are talking about 1.4 million EVs coming onto the market, or that is the projection, and the need for charging stations by 2035. But who do you think should be paying for these subsidies and the costs of upgrades?

Aaron GRAY: I think that is a really good question there, and I think one of the things that I would point to is the councils that we work with and the time and effort that they have been putting in over the last three years. We have had a scenario with each individual council essentially having to upskill people to know and understand about EV charging and electrical grid infrastructure who were not necessarily in that position, and this is being replicated across every single council that is dealing with a charge point operator, whether they are wanting to put in new pole-mounted EV chargers or whether they are wanting to put in new kerbside charging. From a council perspective, sometimes probably the market outcome has not been the best. They have given away prime car parks for what will become essential infrastructure to large corporates backed by really big superannuation and private equity money, with a lot more knowledge around return on investment and things, who are now putting in high-speed chargers on those locations, making probably pretty significant margins on those locations, while the councils get nothing and have given up the amenity of two or four car parks and things. So I think with better planning and with better integration and better work with the DNSPs, a lot of that time can be reduced and a lot of that cost for councils can be significantly reduced.

But I think in a lot of ways this is a bit of a question for the state. The really big players who are putting in the fast charging are your Ampols, your BPs, your Shells and then your Teslas. Three out of those have a vested interest in continuing to supply fossil fuels through the petrol station networks that they have already got. They love the model of 'Everyone go and fill up as quickly as you possibly can'. They market on convenience, but what is that going to do for our grid? If we have got to put in a $200,000-plus upgrade to the grid to facilitate every single one of these charging stations going in because we are going to assume that we can continue with the behaviour we have had before, Victorian consumers are going to pay an awful lot of money. Now, those same consumers – whether they are paying taxes to the Victorian government or whether they are paying directly for the charging, it kind of does not change; they pay for it whether it is via the Vic government or via the corporate. So we can ignore it and continue to allow those corporates to do it, and they will do it and we will end up with a great charging network on the really popular roads, or we can look to work with the DNSPs, who again have a vested interest in more electrons flowing through the local distribution network and enabling

people to charge more slowly and more effectively in a way that can actually augment the grid and, when combined with vehicle-to-grid charging, can actually remove the need for a lot of these other upgrades that would happen if we all plug in and charge when we get home at 5:30 or quarter to 6. I mean, there is an answer there about where we can go with no subsidies, but Victorians pay more.

Gaelle BROAD: At the moment I see in rural and regional areas there is unreliable power in so many parts of the state. I mentioned Euroa yesterday; it has had 17 power outages in two months. They just do not have the infrastructure; there is only a single line. There is a lack of telecommunications facilities, there are black spots, there are internet blackouts caused by the power shortages, and this is a huge volume of additional need going in. What challenges do you see, or priorities perhaps, for regional councils?

Pete MERCOURIOU: The priority is primarily from the local government perspective, and I represent quite a number through the alliance, and it goes completely back to your point: it is about working with distributors to understand where those gaps are. There is a lack of transparency in conversations with distributors about where those gaps are. So you will find a lot of council officers sinking a lot of time in feasibility studies where upgrading your electrical wires at a depot is going to be north of half a million dollars, and none of those local governments in those areas have that sort of capital to invest to upgrade their depots. So what happens? They do not invest in electric vehicles, which then puts them behind their goal of becoming a net zero organisation, operationally speaking. It is a bit of a chicken-and-egg thing, and with that sort of level of investment it is a council-owned asset, but at the same time state government or federal government investment into those specific uses of a depot and distribution centres where there is a lot of concentration of vehicles is really important in terms of what we are subsidising when we are looking at subsidies. So it is those types of locations and sites that probably require more of a subsidy than a $3000 subsidy to get off your $80,000 car, which has been happening in the past. Look, it is a continuing issue for local governments, and we will always face the brunt of community pressure first and foremost, and a lot of the time council officers do not really like passing the buck; they want to own it and do something about it. It is a conversation that probably needs to continue to happen, but a level of incentive probably is required unless we can start working with distributors in a more transparent fashion.

Gaelle BROAD: Thank you.

Katherine COPSEY: Can I just clarify from your answer there that you are talking about council depots and fleets of council-owned vehicles?

Pete MERCOURIOU: Yes. A lot of councils, particularly in the Barwon South West region, have fleet transition plans, but those plans are being impeded by the fact that we cannot upgrade and do not have the funds to upgrade the depot wiring to allow for charging.

The CHAIR: Thank you. Mrs Deeming.

Moira DEEMING: Thank you. Thank you for being here today. I was very curious about a few questions along the same lines as my colleague here. You said, when you opened, that relying on the market means high costs for all of us, and you went into that a little bit just now. I was pretty shocked to hear that basically the government is now paying – you have got some examples, at least – all of these subsidies and this infrastructure and whatever else and then selling it to a corporation who makes a profit, so the cost is socialised but not the profit. I am just trying to work out: how do you measure the cost being high for all of us together? If we did put it back on the corporate sector, and the people who wanted these things were the ones that paid, yes, they would pay a higher cost but they would do it out of their own choice, whereas when we take it on as a government everybody has to pay, regardless of whether they even get any benefit from it at all. I just want you to – maybe I am not understanding the value measures you are using.

Aaron GRAY: I do not think that we were proposing that the state infrastructure is then necessarily used for the profit or the upgrades that are made by those; I think this is about planning, and this is about facilitation and using what is already there and greater work and greater integration between all levels of government and the DNSPs around how we actually want to do this transition.

Moira DEEMING: I think my question was about the cost. So when you say 'if we let the market deal with it' that will be a higher cost for all of us, whereas when I listen to the rest of your –

Aaron GRAY: The players that are putting in the biggest installations at the moment and who are doing all of the fast charging are doing it of their own volition. They do not need government incentives or intervention at this point in time. But all you will end up with is relatively high-cost fast charging that is going to flow through to an impact on the grid, and we all pay for the grid. And if the grid needs to be upgraded –

Moira DEEMING: Am I right in interpreting that you were talking about power?

Aaron GRAY: Yes, talking about power.

Moira DEEMING: This is why there is this huge focus on fixing up the infrastructure and things like that. Am I right in thinking that the push is based on the goal – the goal that we have to get this done by a certain time; we have to achieve these targets – and that we could perhaps push some of those targets back to make it more affordable? It is one thing to say, 'We cannot afford it, so we need a subsidy,' but it is on the taxpayer all over again, who already cannot afford it – $1 million an hour in interest, things like that. I am just really concerned about our debt. I am not against EVs at all. I am seriously very, very worried about our debt, and I am worried about whether it is the right decision to just keep on pushing like this right now at this level. I am just wondering if you have any other ideas or what you think about changing the timeline.

Pete MERCOURIOU: I think we need to have a target. A timeline with that target helps doing any actions that sit underneath that. Without a target, there is nothing to strive for; there is no ambition and no inspiring of community.

Moira DEEMING: Of course, but delaying it perhaps, because we cannot afford it?

Pete MERCOURIOU: I cannot speak to that, but what I can speak to is: the federal government should be stepping in. This is critical infrastructure not just for Victoria but for New South Wales, Queensland, South Australia – all of us. E-charging is an essential enabling infrastructure to get us to that point, so it needs more of an approach integrated between local, state and federal working with distributors to understand where the investment is required and needed. The CEO of Ausgrid recently said that it is not the high voltage lines that are the issue, it is the low voltage lines – stuff that connects us from the poles and wires down to a building like this or a residential house. That is where the critical investment is required. I would not say a subsidy necessarily.

Moira DEEMING: You are not the first person to talk about the DNSPs. I am sorry to interrupt, but there are quite a few seconds left and I would love to hear about that more. Everyone is talking about those and what they can do. Can you just sum that up for me really clearly? What would be the ideal with the DNSPs and what they could do to help with this?

Aaron GRAY: From our perspective greater transparency and closer working relationships. I will draw on some examples of councils who have spent an inordinate amount of time coming up with locations that meet the requirements they have for converting a car park adjacent to a suitable power pole to two EV bays. Let us be fair to the councils: parking in inner city Melbourne is probably the most contentious issue that any local politician is going to have to deal with. They go through and spend months working through this and then take a list to the DNSPs, who then go through and do an analysis and come back and tell them that more than 50 per cent of those locations have not got a suitable power connection. If the process was coming the other way and the DNSPs were sharing the data with everybody, including the charge point operators, and saying, 'Okay, a 50-kilowatt charger would be suitable in these locations, and we can do 22-kilowatt AC chargers in these locations. In these locations we have got no capacity, so we can only do seven-kilowatt chargers.' The DNSP has to have the capacity to turn that off when demand –

Moira DEEMING: That sounds like step 1– getting that sorted with DNSPs.

Aaron GRAY: That would be step 1– to know and understand where. It is the same with regional councils. Bass Coast are here next, but they had the exact same experience. They put forward locations that they wanted for destination charging, for tourism and things, and more than 50 per cent of them could not be done.

Moira DEEMING: The last thing we want you guys to do is to waste any more time or energy or anything like that, so thank you.

The CHAIR: Thanks, Mrs Deeming. Mr McIntosh.

Tom McINTOSH: Do you guys believe in government making decisions based in science?

Aaron GRAY: Absolutely.

Tom McINTOSH: Do you believe in the science of climate change?

Aaron GRAY: Absolutely.

Tom McINTOSH: Do you believe a changing climate sees storms and weather events that have more frequency and higher impact?

Aaron GRAY: Absolutely.

Tom McINTOSH: Do you believe that that impacts every single Victorian, whether it be through insurance bills or farmers getting smashed and our food supplies being impacted, either through delay of supply or higher prices?

Pete MERCOURIOU: Yes.

Tom McINTOSH: Do you think that Victorian governments and indeed all governments – and the point you made earlier was very good, that any vehicle that enters the market now as a new purchase will be here for potentially 15 to 20 years, going to 2045 – to save Victorians money should take whatever steps are possible to get more electric vehicles on the road as quickly as possible, in terms of new purchases?

Pete MERCOURIOU: Yes, and that is where the market is shifting to.

Tom McINTOSH: All right. Thank you. So with supply and demand, whether we are talking about water or electricity – whatever it is – in this case electricity, I think the point you were trying to make earlier and what we have heard so far is that if you have high demand, it impacts the price for the year of electricity. So we do not want a whole lot of high-voltage EV chargers being plugged on and all turned on at once.

I love what you are saying about slow chargers throughout the day. Can you tell us about the cost to install those? I think Mrs Deeming was asking some good questions before. Two things: can you elaborate further on what government or DNSPs can do to make it an easier process for councils or private businesses to connect and put those on, in places where people will be during the day, but also on the cost and the rate of return on those? It would be good for us to understand what the sort of returns are for private investment or local government or whoever is putting those in.

Aaron GRAY: Yes. I am a little bit reluctant to go into the investment returns because that is not the business of the councils in our region. There are some councils who are running chargers, and my understanding is that they are making money out of it. One of the consistent things that we have heard from charge point operators is that – and it is pretty simple, really – it is difficult to make money out of slow charging. Even though the installation cost is relatively cheap and the margins are there, if you are only putting 7 kilowatts an hour through a charger, then you are only getting a relatively small, in total dollar numbers, return. This is where for the pole-mounted charging, if you add an annual fee to connect to the pole – I think at one point it was talked about at $3000 to $5000 or something – they are looking at, with current utilisation of sort of 25 per cent to 50 per cent, barely making that much per annum in revenue.

Tom McINTOSH: Do you think there is a level of self-interest in the way the DNSPs are approaching the market?

Aaron GRAY: Look, I sympathise a little bit with them. The chargers that we are talking about, the pole-mounted chargers, are 22 kilowatts each side, so 44 kilowatts are able to be drawn at any given point in time. That is the equivalent of adding more than four large houses onto an existing road, where they have known for the last –

Tom McINTOSH: But what if we use a 7-kilowatt charger, like you are talking about?

Aaron GRAY: Exactly.

Tom McINTOSH: It will be lower revenue but better for the overall grid and keep all of our prices down.

Aaron GRAY: Correct. Exactly. But at the moment, that has not been the conversation with the charge point operators who want to get 22 kilowatts through, because then they can charge a car completely in 3 to 4 hours, move that car on, get the next car.

Tom McINTOSH: We heard yesterday the average car is doing 30 k's a day, so a 7-kilowatt charger overnight, or during the day or whatever, would be more than enough.

Aaron GRAY: Yes. Particularly there are a lot of cars sitting there all day, and they can potentially be fed back in, but they need connection points, and I guess that is our point. At the moment the charge point operators, who are essentially the market, are saying relatively clearly that is not a part that they want to play. That might change; there might be some out there who want to. But I see it as a real positive that the Victorian government has enabled this trial with CitiPower to look at pole-mounted charging, and to my understanding they are looking at putting these 7-kilowatt chargers on. They are an infrastructure owner. Their return hurdles are different; their cost of capital is different. So for them it is a different model, and potentially if they are using vehicle to grid they have a significant way to perhaps save themselves money and save other upgrades whilst continuing to benefit from an increased flow of electrons through the grid, which helps them make more money. I will be very interested to see how that plays out over the next six to 12 months and if that accelerates and if that is a role that they see themselves playing more, potentially without state government incentives and things. But we will not know, and there are a lot of people in the market who are obviously very nervous about having them playing in what has previously been a ring-fenced area that they are not allowed to touch. Again, this comes back to regulation. They are a regulated monopoly and we will see how that all plays out. But from the council's and the alliance's point of view, we see trialling these things as a great idea.

Pete MERCOURIOU: Just quickly, at that point, we have to look at what the end use of the vehicle is. Like what Aaron said earlier, are you getting home after work and plugging in there, or have you been plugging in at work to slowly charge, to fill up to get back on the road? It comes back to the education element that we were talking about earlier also. It is really having an understanding – and this is what the fleet managers at local governments right across from Warrnambool through to Geelong are starting to get and wrap their heads around. When are you using that car? Are you driving home after it? Am I funding you to pay to charge at your house even though it is a fleet vehicle? Or are we not doing that, and we will wait till you get back in the office and we will switch out those cars so that car stays today and that car leaves because it needs to do the slow charge all day. These are the types of conversations that we would have with fleet pretty regularly now because there is an impetus for fleet to transition, because one, the cost savings just based on fuel and maintenance alone is a tick in their books. They are holding on to those cars longer because of the reduced fuel and maintenance costs. Then you have got grid firming abilities that we can do at a local government, which then spurs a different conversation with fleet, and you go to the accounting team – 'We want to invest more in these electric vehicle charging points, particularly pole-mounted ones, as a revenue generator', viewing it more like car parking costs.

Tom McINTOSH: If we get more time before the end, I will come back to fleet and fuel costs. That is a good one.

The CHAIR: Mrs Deeming just want to ask a clarifying question.

Moira DEEMING: Yes, you can take it on notice if you like. About electricity, not including fuel and everything else, but I think I heard you say that, or maybe it was you, that basically if we invest in all this, that it really will result in lower prices for us all. I would just love to see those costings. I would just love to see that math.

Aaron GRAY: I would point you in the direction of Saul Eslake who has done Rewiring Australia –

Moira DEEMING: Sorry, I misheard you.

Aaron GRAY: Sorry, Saul Griffith, who is from Rewiring Australia, who has done those numbers, and they have done a lot of work in this space.

Moira DEEMING: And that is what you are relying on?

Tom McINTOSH: Mrs Deeming, if you are referring to what I mentioned, I was talking about peak power. So the less – is that what you are talking about?

Moira DEEMING: It was an ongoing exchange in between you. I was not sure who said the part that I remembered.

Tom McINTOSH: Just to clarify, the question I had was if we have lower peak demand, like lower total demand at certain points, then there is less demand on the grid, so we do not have to invest in it so much, so it is lower power prices for all of us.

Moira DEEMING: Yes, my recollection was that were talking about the investment in the infrastructure first. But that is fine – if you can show me that that is going to result in that, that would be great.

The CHAIR: I might jump in. I just want to talk a little bit more about the role that councils play and what changes you would like to see in terms of them being able to expand on charging infrastructure, but also more broadly if you think the current arrangement is the best one – because it feels quite messy, and obviously there are three levels of government playing a part and lots of things getting in the way – or what the ideal model to deal with all of this would be.

Pete MERCOURIOU: It is a great question. I mean, it depends on the council. Regional councils have different issues –primarily it is a lot of issues with grid-related problems. But you also have to look at it from a community perspective, and the community push being climate action plans as a result of Darebin declaring a climate emergency, which has led to net zero emission targets not just from the state level but at the local government level. In the last five years – I can only speak for Geelong because I know this data – the number of EV registrations has doubled year on year, which has led to a doubling of revenue generated at our leisure centres primarily, which is where we put our EV charging infrastructure that we manage through a third-party operator. So looking at the data and looking at the adoption rates of electric vehicles, probably that is why we are here today, to talk about how we continue that transition without causing issue. I had the privilege of joining an RMIT energy systems industry future research event and talking with a couple of people who are working at AusNet – not Ausgrid – they are getting complaints from people charging their cars at home. Some of their Teslas are turning off because the load is not adequate coming into the home because of peak demand, and that is when they are plugging in. So they are starting to be a bit more proactive in determining where these gaps on the grid are and those specific locations. They are getting complaints coming into AusNet and therefore are doing something and acting on it. I do not want to be in the position where we are doing something because people are complaining rather than getting in front of it.

In terms of what the solutions are: looking at more transparency with grid operators – local government were kind of trying to work a bit backwards, I suppose. We want to invest in the infrastructure, but we are leaving it up to third party operators, so the revenue that we are generating is usually through lease agreements for that car space. Is that good enough? Do we have any control over the pricing that we are offering customers? Not in all respects. Some do; some do not. What I mean by that charging price point: pensioners, healthcare card holders – should they be paying a different price for electricity if they were to swipe the card on the street? Is that an equitable way to manage that EV adoption transition? Potentially. But we do not have any control over the pricing unless we put it in the procurement policy that we have going out to market. And that is council to council specific, so it is hard to really talk about what each one wants to do because there are no plans in place at state or national level as to how that rollout of EV infrastructure can be. We cannot do the infrastructure without understanding EV charging infrastructure and without understanding the gaps in the grid and where that investment is required. Transparency from the DNSPs will go a long way in helping us understand which area we should look at for EV charging first and work backwards.

Aaron GRAY: And I think, from our perspective, we exist as alliances to coordinate the action on behalf of councils so that they do not have to replicate it across and across. From a state perspective, having a statewide EV charging strategy and implementation plan that has been worked on or discussed, inclusive of the key stakeholders – and that includes the DNSPs and that includes local government, whether they are inner metro or outer regional ones, which are the areas with the greatest challenges. Having them collaborating and working on this together with a view to what the actual end goal is and what we want this system to look like in 2040,

2045. Because that is where we need to be. If we meet our targets for EV uptake by 2035 that the state has set, we need the infrastructure there and we need to be planning for that now. And if we want to do it the cheapest way we possibly can, then it is going to need to be collaborative.

Pete MERCOURIOU: Yes.

The CHAIR: Gotcha. Just in terms of regional Victoria, I am not sure if you can speak to this specifically, but are there any parts of regional Victoria that are doing well in relation to charging infrastructure, and why? What areas?

Pete MERCOURIOU: There is Mildura. They are doing exceptionally well. But how they are doing it is pretty much like how every local government is doing it – they are just putting more time and effort into it because they are more of a tourist destination. That is the council plan for Mildura – to become a tourist destination, the 'Orange Riviera'. So they are really investing in that and making sure to inform the people of Melbourne and people outside of Mildura, that 'Don't worry, you can charge.' They are really doing that to minimise that range anxiety of EVs, which is slowly shifting anyway, which is great. But they are doing a really good job regionally in terms of doing that.

Colac Otway – at Apollo Bay we still have issues of investment in this infrastructure. Five years ago some of it was breaking down. Some of those companies do not exist anymore. What do you do with that asset? Now it is a stranded asset. So there is a hesitation to invest more until these policies and plans and EV strategies for infrastructure are better in place. We can then start to, from a regional perspective, look into investing in that again. It has reached a bit of a stale point.

The CHAIR: Yes. Cool. Gotcha. Members, we have 10 minutes left. Does anyone have further questions?

Katherine COPSEY: Yes, please.

The CHAIR: Great. We will do one each. Try and keep them brief just to ensure we get to everyone. We will start with Mr Berger.

John BERGER: Thank you, Chair. I am just interested in teasing out a bit more about the EV infrastructure in regional areas. Do you have any knowledge of what has happened overseas? Because let us say the uptake in Australia has probably been a bit slower than what it has been internationally. Are we trying to reinvent the wheel with some of this stuff?

Pete MERCOURIOU: Hopefully not. No. I mean, you have got to look at the driving patterns of Australia versus other parts of the world, right. California is probably your next best good example of what that would look like. But their energy systems and distribution are very different to how we have it, because we have got our supply distribution network and a retailer, whereas it is very different in America because there it is more like a water board, more like Melbourne Water. It is more regionally based.

And from a federal level, at least a few years back there were energy-efficiency incentives for those distributors in California to run programs of EV infrastructure or putting out free EVs for low-income parts of LA et cetera. It is much easier to deliver and implement different things when there is just one operator in that region, so that is the impediment there. In the UK they have a high amount of pole-mounted chargers. It is purely based on location and geography and how people drive in the UK. So in Charging the Regions we might be unique in that respect. If we look at California as one example, you would want to look at the driving patterns of people in LA, which are pretty far, long and laborious. Perhaps Vancouver in Canada is a good example to look at as well. I have not looked at that personally, but I have looked at the California example, and that is why it works. Their rollout works really well. Again, that is coming back to a lot of investment in EV infrastructure in the first place, and that was based off 2020–2024 investment in that EV infrastructure. Aaron, did you have anything to add?

Aaron GRAY: I guess one of my comments would be that I do not know that we are doing as badly as perhaps people like to say. I think this comes down to a little bit of the education piece to people around what is actually there and available. There is work to do. I think the reality is that putting two 50-kilowatt EV chargers down in Bass Coast might have worked five years ago, but we need to continue that investment; it does not stop there. There are things we could tighten up in the future around the requirements for those chargers, uptimes

and efficiency and how they work, and actually delivering on the nameplate and number on there, which frustrates EV drivers. But we are probably doing pretty well. There are not many places, particularly in Victoria, where you cannot drive with an EV and be comfortable that you will be able to charge. The concern for a lot of people – and particularly if we are going to business and fleet people, where time really becomes money – is that if they pull up in a country town and it only has two chargers and one of them is out of action because it needs service and with the other one, someone has just plugged in and they are going to be there for half an hour or 45 minutes, suddenly their 30 to 45-minute lunchbreak has turned into an hour and a half and their boss is on the phone ringing them, saying, 'Why on earth are you stationary? We need you to deliver this to XYZ' or 'You're meant to be seeing XYZ number of businesses today.' So I think we need to continue with a lot of that, but I do not think we are doing that badly.

Pete MERCOURIOU: Yes. You always have to mirror the uptake of EVs to the investment on EV infrastructure, being very clear where that infrastructure should go as well. So we will be reaching that inflection point at some point in time, mainly because people are getting more interested in EVs and being comfortable with EVs, and obviously, going back to our original statements there is the multifunctionality of EVs and the cost-saving benefits that EVs do provide, so enabling that is the element.

Aaron GRAY: And continuing to plan for a reality in 2040, 2045 and 2050 when the majority of vehicles on the road will be electric vehicles.

John BERGER: Thank you. Thanks, Chair.

The CHAIR: Mr McIntosh with a quick follow-up, and then we will go to Ms Copsey.

Tom McINTOSH: I want to follow on from there. Regional towns and tourist towns might for 75 per cent of the year not be high demand, but then there is high demand. Talking about this slow charging, whether it is 7 or 22 kilowatts, what are your reflections on those towns having sticky tourist charging? It might take 2 or 3 hours to get a third of a tank, but it is not putting such strain on the grid and you are giving more charging points, so say for the same investment you might get half a dozen or a dozen charging points near shops, near beaches et cetera, versus putting in one more fast charger. We know people want to charge and go, but in those tourist towns you actually want people to be sticky, particularly for local councils – they want money going into the local economy.

Aaron GRAY: I think that is exactly right. There is always going to be a place for really fast charging, because there are always going to be people who are moving through to the next destination, but for a lot of people more access to slow charging that puts far less strain on the grid is going to provide them with the top-up that they need or the energy that they need.

Tom McINTOSH: So you would be supportive of that, particularly in that sort of tourist town scenario?

Pete MERCOURIOU: Yes. And people will be more accustomed to that, because if they are charging at home, it is more than likely going to be slow charging anyway because it is cheaper for them; they do not have to do the investment. So in terms of behaviour shifts, they will not need to change that behaviour because they have already been doing it at home throughout the year. When they go on holiday it will be normal for them. So if you are at the beach, charge, go through, great.

Tom McINTOSH: Thanks.

The CHAIR: Ms Copsey.

Katherine COPSEY: Thank you. I just wanted to go back to households a little bit and talk about vehicle to grid. You mentioned before you were part of the solar boom and facilitating that and planning it. Where are we up to with batteries, with EVs that are batteries on wheels and with vehicle to grid? What benefits can that deliver for us all, and what role can various levels of government play in helping households access that technology?

Pete MERCOURIOU: When we look at the shifts in how people work today as well, if you are going to the office two or three times a week, you have got your car sitting at home. So primarily you could be charging your car from your solar if you have access to solar. I think we are at 35 per cent to 40 per cent nationally for

residential rooftop solar. We are leading in the world – unbelievable. The battery uptake since the subsidy has been put in place by the federal government has increased the number; I think it was 160,000 that were installed last year. A lot of electricians are very, very happy about that, I might add. And then vehicle to grid: we talk about that and selling the stored power in your battery at home to the grid. If every house has got that and every car has got that, that will not be such a financial pull for people to do. Powering your home with the battery that you have got in your car – if you have got a 70-kilowatt hour battery in your car and you only drive three times a week, you have still got probably 25 kilowatts to use. The average person at night uses 8 kilowatts or something like that, so it is only a 2- or 3-hour period, which will minimise the need for the grid to supply that power. That is not enabled yet except for those two examples I mentioned in South Australia and the ACT. That is likely to happen, with the blessing of the distributor, naturally, but I myself probably will not buy a residential home battery. I am waiting for the vehicle to home to happen based on my patterns of energy usage and based on my patterns of when I use the car and when I do not. That is a better financial prospect for me to invest in. It is very real in Geelong in some of our precinct structure planning for the size of Ballarat, right next to Geelong. We are planning for every new home to be built EV charge ready. So that is a really important distinction. At the same time, people in low socio-economic regions will not be able to do that, so there will be a huge gap that local governments are likely to try to fill.

Aaron GRAY: I think it just offers a lot of exciting opportunities for people to be more engaged with how they use their electricity and what is actually happening. It is not going to be for everyone, and it does not need to be for everyone. But from a pure economics perspective, if you look at it, I think some of the V-to-G chargers that are on the market are in the $5000 to $10,000 type price. That gives you access to a 50- to 100-kilowatt hour battery in your car, depending on the car that people have bought, compared with, even with the government subsidy, spending $8000 to $10,000 on a 13.5-kilowatt battery. That is what we are getting at the moment. As that technology matures and comes, there is a lot of interest out there already. We are seeing this huge take-up of batteries from people wanting to be energy self-sufficient. These are just far bigger batteries that will ultimately be at a cheaper price with four wheels. I think there was a period of time last year where you could buy an EV for under $30,000, and you are getting a 45-kilowatt battery, so it is cheaper than the equivalent battery to go on your wall and happens to come with the benefit of four wheels and a steering wheel that you can move around town in. I think the opportunity for that is huge, and other countries overseas are obviously investing a lot of time and effort in that as well. We have a lot of smart people working on automation that I think can really help in that space. How we allow everyone to access that – how we upgrade apartments and other things to be able to do that – I think is something that needs to be looked at, because often the incentives are not there for apartment owners, who are generally not the people living in them. We know that they are predominantly owned by investors. They see no benefit or return from that. So that is a challenge from a policy level: how do we facilitate and enable access to that?

Katherine COPSEY: Great. Thanks.

The CHAIR: Thank you so much. That is right on time, so we will conclude the public hearing there. Thank you so much for taking the time to submit to the inquiry and appear before us today. We really appreciate it.

Witnesses withdrew.