LEGISLATIVE COUNCIL ECONOMY AND INFRASTRUCTURE COMMITTEE

Inquiry into Electricity Supply for Electric Vehicles

Melbourne – Thursday 26 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

Brendan Wheeler, Chief Executive Officer *(via videoconference)*, EVSE; and

Andrew Forster, Chief Executive Officer, and

Sean McGinty, Founder and Director, EVX.

The DEPUTY 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 welcome any member of the public watching via the public broadcast.

I will start by introducing our committee members.

John BERGER: John Berger, Member for Southern Metro.

The DEPUTY CHAIR: Richard Welch, Member for North-East Metro.

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

The DEPUTY CHAIR: Witnesses, all evidence taken today is protected by parliamentary privilege as provided by the *Constitution Act 1975* and further subject to the provisions of the Legislative Council standing orders. Therefore the information you provide today during the 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. Transcripts will ultimately be made public and posted on the committee's website.

For the Hansard record, could you please state your name and any organisation that you are representing.

Andrew FORSTER: Andrew Forster, EVX.

Sean McGINTY: Sean McGinty, EVX.

The DEPUTY CHAIR: Thank you, gentlemen. I will invite you to make your opening remarks. If you could keep them between you to about 10 or 15 minutes, then we will have plenty of time for questions. Thank you.

Andrew FORSTER: No problem at all. Chair and committee, thank you for the opportunity to appear in front of you today. I would like to frame my initial remarks as a tale of two cities or, more precisely, a tale of two states: New South Wales and Victoria. Both major cities share similar urban density, comparable electricity infrastructure, similar regional infrastructure challenges and ambitious electric vehicle adoption targets. Both are relatively wealthy, sophisticated markets with a number of privately owned distribution networks and active, private EV infrastructure sector participants.

When it comes to EV charging deployment, however, the outcomes have diverged significantly. In New South Wales, we are seeing accelerated deployment, increasing private capital participation and the large-scale development of models such as utility pole mounted EV charging. We also see a significant and increasing engagement from our local governments thanks to state government guidance, planning tools and support. The benefit of this maturing infrastructure market, in simple terms, is that local government have had the time to work it all out by testing public–private partnerships over the last few years. Victoria, in stark contrast, has lagged spectacularly. Projects have faced protracted timelines in the order of years. Costs are higher and less predictable. Even smaller installations like our kerbside AC charging stations face significantly lower site approval rates than in New South Wales, with over half of potential locations being knocked back thanks to lack of grid capacity.

As recently as last week we submitted a list of eight locations, one of which was approved for deployment in Melbourne's metro area. Thanks to these initial years-long delays and vast areas of capacity constraint, local governments have only had the benefit of a few months to assess and publicly consult on projects that have been in the pipeline with the private sector for more than two years, including one funded by the Victorian government's ZEVET program announced in 2023 that is yet to even commence. You will hear some DNSPs claim that this is evidence of market failure. It is not. It is the result of years of complacency in enabling the market and what in our view has become a deliberate delay tactic to support a regulatory capture campaign, culminating in a waiver from ring-fencing rules designed to protect Victorian consumers. The result is not simply a slower rollout; it is a widening structural gap. This matters because charging is not merely infrastructure, it is market confidence and it ensures that the adoption of EVs extends beyond households with garages. It determines whether fleets electrify and determines whether renters and apartment dwellers can participate in the transition.

There are three core issues that Victorian people face in terms of EV adoption. Firstly, innovative, rapid deployment models, particularly pole-mounted charging, have been under consideration with the Victorian DNSPs since May of 2023. In New South Wales integrating chargers into existing street poles had moved from concept in June of 2022 to execution by December 2022 – six months. In Victoria, however, this model has been subject to extended review, reconsideration and delay with no technical barriers in the way. The VSIR committee issued approval for our chargers to be put up on the Victorian distribution network in October of 2023. In Victoria, the first chargers did not go up and get connected in the United Energy service area until July of 2025. This two-year delay was commercial; it was not technical and certainly not due to a lack of enthusiasm from the private sector or local government – six months from concept to completion versus two years for the same in Victoria. The effect, deliberate or otherwise, has resulted in a deferral of lower cost, faster to deploy charging solutions in Victoria. Innovation in infrastructure delivery requires a degree of agility at the end of the day, and it requires a willingness from our monopoly networks to perform to a reasonable service standard, the minimum which we should expect for being granted the privilege to profit unopposed competitively from our public infrastructure. Where this fails to occur, the market does not wait. It reallocates capital elsewhere, and that is precisely what we are observing: investment, productivity, economic growth and job-creating infrastructure projects walking out of Victoria and into other more accommodating jurisdictions.

Secondly, the most significant structural difference is the level of contestability in connection and network services, and we have heard a little bit about that today already. But a specific example for us in New South Wales is that there are 1200 companies under the accredited service provider scheme that can undertake substantial components of design and construction. This introduces competitive tension, reduces bottlenecks and improves accountability around timeline and costs. In Victoria, by contrast, much of this process remains effectively non-contestable. Distribution network service providers retain control over assessment and delivery of key connection services, and where their internal capacity becomes constrained, whether by resourcing, process or prioritisation, the market has limited alternatives.

The absence of contestability does not simply affect price, it affects tempo. It affects responsiveness and the ability of charging providers to scale. The electrification of homes and industries in the coming decades represents an enormous task for our DNSPs and their critical core role in enabling that transition. A competitively driven and privately operated industry will ensure that networks can focus resources where they are needed most and will grow the Victorian economy under a contestable and competitive framework. When connection and network assessment services operate as a monopoly function without strong time-bound standards, deployment slows and investment evaporates. In New South Wales, for example, once a connection is approved, EVX and their approved service providers can install, connect and commission a new location in 4 hours in every DNSP jurisdiction. As a result, in 2025 EVX, one of many operators in New South Wales, delivered close to four new public charge points every single week. In Victoria this process takes several weeks and is completed over four stages. We have, however, been able to gain a limited agreement with CPU, the consolidated DNSP in Victoria, and we do anticipate that we will be able to get 50 charge points out before the end of June this year.

Thirdly, infrastructure deployment at scale requires confidence in investment. Investment in our industry essentially assesses two key things: demand forecast and delivery risk. DNSPs right around the country are running a campaign which suggests that the business model for kerbside charging does not work. These claims are predicated on false utilisation data and are deeply rooted in both a lack of real-world experience delivering these services and a desire to derail an industry in order to capture it using regulatory changes. In a recent

submission to the AER, CPU claimed that their model was predicated on a 4 per cent utilisation rate. In practice, metropolitan kerbside infrastructure performs at three times this level currently. Claims like this are deteriorating investment confidence when used without accountability or proof in the public debate. Investment also looks at –

The DEPUTY CHAIR: Mr Forster, have you got much further to go, just in the interests of time?

Andrew FORSTER: No, not much further. Investment also looks at delivery risk, how long things will take and ultimately what progress is being made. When comparing New South Wales and Victoria, investors are increasingly seeing two different risk profiles, uncertainty around process duration, limited contestability et cetera. Investment follows certainty, and this is what we do not have in Victoria right now.

The path forward is not inevitable. Chair and members, the energy transition will not succeed on ambition alone and requires infrastructure delivered at speed and scale. Right now the difference between New South Wales and Victoria is not capability, it is execution. Thank you for your time, and I am happy to take any questions.

The DEPUTY CHAIR: Thank you. Mr Wheeler, I am sorry, I missed you in the introductions phase. If you would like to introduce yourself and make your opening remarks as well, please.

Brendan WHEELER: Fantastic. Thank you. Good morning, everyone, and thank you for the opportunity to appear before the committee. My name is Brendan Wheeler. I am the CEO of EVSE Australia. We are one of Australia's largest EV charging providers. We deliver integrated hardware, software and installation across home, fleet, workplace and public charging. In Victoria we have delivered projects under the destination charging across Victoria program and deployed rapid charging hubs at shopping centres and key destinations across metro and regional communities. Nationally through our Exploren network we now operate over 2000 public chargers, including over 300 high-powered DC charge points. Our rollout model is built on partnerships with councils and major property owners to ensure infrastructure is deployed where demand is strongest and commercially sustainable.

Our central point is this: public charging is not a natural monopoly; the poles and wires are. The charging service itself is competitive. Ring-fencing protections exist to prevent cross-subsidisation and ensure electricity customers are not funding competitive services through their bills. Preserving these safeguards maintains investment confidence and encourages private capital to keep flowing into the sector. If the objective is to accelerate EV uptake in Victoria, the barriers we see are practical rather than structural. First, tariffs: network tariff structures directly influence whether a site proceeds. In some jurisdictions demand and capacity charges can make network costs several times higher for the same asset. Tariffs that better reflect EV load profiles and reward off-peak and flexible charging would materially improve site economics and unlock faster rollout.

Second is transparency, network readiness and connection timeframes. Clear, regularly updated hosting capacity information would reduce speculative development and allow proponents to align projects with available network capacity. Equally important are predictable and efficient connection assessment timeframes. When connection responses are delayed or upgrade requirements emerge late in the process projects stall, development costs increase and capital is redirected elsewhere. As transport electrification accelerates, coordinated planning and streamlined connection processes between government, DNSPs and industry will be crucial.

Finally, targeted policy support can unlock constrained segments of the market. Supporting electrical upgrades in existing apartment buildings, strengthening EV-ready standards for new developments, ensuring consistent and transparent connection standards and pricings, and working with councils and local government around charging strategies and deployment targets would materially accelerate equitable access across Victoria.

Victoria has made some progress, and the private sector is ready to invest now. With clearer tariffs and faster connections rollout can accelerate across both metropolitan and regional Victoria. Thank you, and I welcome any further questions.

The DEPUTY CHAIR: Thank you, gentlemen. We will go to questions now, and we will start with Mr Berger.

John BERGER: Thank you, Chair, and thank you all for your appearance at this morning's hearing. Andrew, I am interested just to understand a bit more about the barriers you talked about and in particular the execution – I think that was in one of your final comments – and what that means in relation to where you guys are at.

Andrew FORSTER: If you are asking about before we had initially started installing in Victoria, the execution was sort of a contractual negotiation from that point of view. What we saw was interesting. Part of the AER ring-fencing waiver that has been issued is that they have actually determined in that waiver that they want to start managing what they call a negotiated services framework because of some of the feedback that we provided to the AER being around just how long it took to get an agreement out of the utility to do the things that we are doing.

John BERGER: And typically, how long would that take?

Andrew FORSTER: In other service areas it is probably a six-month process to negotiate those sorts of terms, but with CPU it took us a number of years. After that, in terms of the execution on the ground, as I said, in New South Wales, and it has been touched on this morning, there is this sort of contestable framework that allows independent contractors to design and install and activate things on the network. It saves us a lot of time. We have a site in Victoria right now that was installed prior to Christmas and is still not connected to the network. It would effectively be like building a house and sitting in it waiting for a connection for several months.

John BERGER: Are you saying this delay is stemming from a cautious approach or just some other reasons?

Andrew FORSTER: I think it is a structural issue with the process ultimately. But yes, if you want to expand –

Andrew FORSTER: Yes. There is no need for it. This is connecting a normal load to the network. It is under 100 amps. It is something they do every day of the week. There is no reason that I know of. As well as being co-founder, I and the other co-founder have businesses in transmission distribution contracting in New South Wales. Both of us have been in business in this line of work for nearly 30 years each, so we know the networks, we know their processes. I just cannot understand it. There is no reason I can give you for the delay.

John BERGER: Would it have anything to do with capacity issues? Is there different capacity in New South Wales to what there is Victoria?

Sean McGINTY: No. Capacity is determined up-front. When we go to find a location, we ask the DNSP if there is capacity there for the load. In our last lot that went through we only had one in 8 approved. We are only asking for 63 amps a phase. Considering that most urban pole-top subs have 400-amp fuses in them, if we cannot get 63 amps of phase, it means that the network is running within 15 per cent of its limit. So in seven of eight cases the network is running within 15 per cent of its ultimate capacity, which I find astounding, to be honest. To me, that is just the lack of investment over the years in the network.

John BERGER: When you say you find it astounding, do you mean not believable or not –

Sean McGINTY: Well, it is not the way I would run a network. They are running their asset really hard. If you cannot connect another house to a street, then I think you have got some issues.

John BERGER: All right, Chair. That is all I have for this minute.

The DEPUTY CHAIR: Thank you, Mr Berger. I will go to Ms Broad.

Gaelle BROAD: Thank you very much. I am typing notes, because there are quite a lot of issues that we are hearing today. I am interested in pricing. What sorts of typical costs are you seeing from the DNSPs?

Andrew FORSTER: There are two different sets of costs. There is what we call capital costs, so up-front, and then the ongoing costs that we cop from the networks and from various other places as well. What we do is not as capital intensive as what the DC charging networks do, so we do not install fast charging. We do lower-

speed kerbside stuff, so our hardware cost is not enormous. The up-front cost in terms of connecting to the network for us is proportionately much lower.

Gaelle BROAD: What does it cost for you to connect currently in Victoria?

Andrew FORSTER: It is about –

Sean McGINTY: $2000 or $3000.

Andrew FORSTER: three-and-a-half grand in administration costs, but then there are other things around physical connection, electrical works et cetera.

Gaelle BROAD: And how does that compare to New South Wales?

Andrew FORSTER: For a comparable DNSP in New South Wales I think it is a couple of hundred dollars for a site assessment, which is quite a lot less. Because of the contestable process other costs come through, so your network application comes through our contractor at another, I do not know, $150 for a –

Gaelle BROAD: In New South Wales?

Andrew FORSTER: In New South Wales.

Gaelle BROAD: So all up, what would it be roughly?

Andrew FORSTER: It would probably be – by the time we had done everything in those sorts of application costs – I do not know, maybe $600 or $700 in New South Wales, so significantly less. You have then got the ongoing costs, which are the big-ticket items for us. And in New South Wales, as Bernhard mentioned, there is a tariff which is quite inexpensive most of the time. There are two parts to your energy bill: one is your network tariff and the other is your retailer margin, and most people do not see that. They see the two bundled together into a cost, and they get their energy bill, but everything is in there. As a large consumer we can see both. Typically our network costs in Victoria are about 50 per cent of our bill. In Ausgrid's area, with this innovation tariff around peak load events, that is closer to about 20 per cent. So our network costs, from an ongoing business model point of view, in electricity costs, are far lower, and then also you can get into things like what they call 'facilities access fees', which is effectively the rent that we pay to be on the network pole.

Gaelle BROAD: Can I just ask: Brendan, did you have any comment on that, in your experience, on the pricing in Victoria compared to New South Wales?

Brendan WHEELER: I think Andrew has covered it pretty well; we have the same experience. I mean, we are generally not putting the chargers on the poles, so we do not have the facility access agreement. But yes, we have found the up-front cost and the tariff structure definitely lacking.

Gaelle BROAD: When it comes to making a complaint or anything, what is the avenue in Victoria? Is there one?

Andrew FORSTER: You just have to appeal to the utility – to the DNSP, basically. You can reach out to the AER and sort of say, 'Hey, look, there's this stuff going on that we think is in contravention to the rules or we don't like,' but there is no hard and fast complaints dealing process.

Gaelle BROAD: In Victoria are the DNSPs operating their own EV charging infrastructure? Are they competitors in a way?

Andrew FORSTER: They will be, yes. That is right. This waiver that they have got from the regulator will essentially position them as a competitor. Now, they would argue that they do not want to be a customer-facing entity, they just want to own the asset and they want to lease that asset or let others control it. But there are a whole host of complications around that which we can get into if you –

Gaelle BROAD: Sure.

The DEPUTY CHAIR: Thank you. We will go now to Mr McIntosh.

Tom McINTOSH: Thank you. Brendan, I will start with you if I can, just about apartments and houses, particularly new builds, being EV-ready. Can you expand a bit on that – I think you mentioned that in your opening remarks – and just how that is shaping up currently.

Brendan WHEELER: Yes, absolutely. Apartments are probably one of the most challenging parts of the market to electrify. Even though it is a residential setting, it really becomes a commercial installation in the sense that you have got common power, you need to install commercial-grade infrastructure, billing mechanisms, load control. So it is a very different use case than just someone with their own garage putting a charger in the wall. A lot of the cost is involved in that backbone infrastructure to the point that it can be prohibitive to even undertake the exercise. There have been programs in New South Wales that looked at subsidising feasibility studies and assessments to create at least frameworks and structures for body corporates to be able to understand that cost up-front as well as programs just to help assist in that up-front cost, because once the backbone infrastructure is there, it is actually not that hard to add chargers in – it is just putting in the switchboards and so forth at the start. Particularly with new builds, there is an opportunity to set these buildings up. These are 40-, 50-, 60-year buildings. To do it retrospectively costs you several times more than doing it at the point of development, so in my mind it is quite absurd to be building apartment blocks without any consideration to EV charging. But there is certainly a role that government can play to bridge the gap, because it is a tricky part of the market. You have also got the complexity of body corporates; things through those are often challenging. It is a hard part of the market, but we know a lot of people, a lot of Australians, a lot of Victorians, live in apartments, so we need to think about how we bring them along for the journey as well.

Tom McINTOSH: I just want to ask you all about how we can improve customer experience from a payment perspective and if there is a way or a hope or a potential in the future that that will be streamlined or simplified where you have got one sort of portal that then can branch out, or what may happen there.

Sean McGINTY: There is a new standard coming in for plug-and-play.

Andrew FORSTER: Yes. What utopia looks like there is plug-and-play – someone rolls up to a charger, they plug their car in, the charger knows who they are and it charges them accordingly because they have set up a profile somewhere in the background. That is coming. I believe ISO 15118 is the standard that is required.

Tom McINTOSH: Evie have that if you are registered with them currently, yes. But anyway, it is not for you to speak to that.

Andrew FORSTER: Yes. I believe the standard has been developed and is established for DC charging. I believe it needs some work for AC charging. Brendan may be able to correct me on this, but we have tried a few other things as well in terms of universal payments. One of them is using a credit card to tap on the charger and pay for it. It is a good solution from the point of view that everyone has got access to one. It is a less-good solution simply for the fact that people intuitively want to know what is happening with the charging session: how long has it been going for, how much have they been charged, what is happening. What we find is that new customers often or sometimes will gravitate to the payment card terminal on the device – and we are trialling a few of them – but habitual users, people who use these all the time, will gravitate to registering on the app and then getting an RFID card, which in effect is the same thing. It is a little thing on your key chain. You tap it on the machine, it knows who you are, it charges you for your session and you can still log into the app and see what is happening. With a payment terminal you are not always connected to what is happening and you are sort of flying blind to a certain degree. And the hardware costs and processing costs from those providers can be quite high, and we miss that when we use the application.

Tom McINTOSH: As far as the apps, let us say there are, for argument's sake, six different EV charger companies operating in Victoria and you have got to have an app for each one of those. I suppose that is the complicating factor for people and whether there is a way that can be – because I agree with you, being able to use an app is good, it is convenient, you can see what is going on. But is there just a way that we can stop the multiplier effect on people's phones?

Sean McGINTY: Yes, so we have enabled roaming. Chargefox can roam on our chargers, so a Chargefox customer can come to our chargers and use their app. There is a system where if we own a customer they can go to another charger and use that charger with our app.

Andrew FORSTER: Yes, it is an established, I suppose, protocol across the industry. So roaming exists now and it works. As Sean said, we have activated that feature with Chargefox. It made sense to us commercially. They have got a lot of customer acquisition activity. They have got fleets that use their platform. So opening up our network through their application, using existing technology and protocols that have already been developed all the way around the world, made a lot of sense.

Tom McINTOSH: Cool. Thank you, Chair.

The DEPUTY CHAIR: Thank you. I will just follow up on that. Is that universal or is that just industry showing some initiative here? How is that working?

Andrew FORSTER: It is usually by agreement. So a charging provider or infrastructure owner will have a discussion with another charging provider or infrastructure owner or app creator and say, 'Well, we want to do this. This is an initiative that we want to undertake.'

The DEPUTY CHAIR: But there will be exceptions.

Sean McGINTY: Well, the tech is there, it is just that two companies need to agree.

The DEPUTY CHAIR: Yes. Whereas with, say, mobile networks and other things it is mandated.

Sean McGINTY: That is right.

The DEPUTY CHAIR: We would not want to mandate it. But I think it is a valid point that multiple apps is not viable.

Sean McGINTY: No. That is why we have we have engaged with other providers, to allow roaming.

The DEPUTY CHAIR: I think at an industry level though –

Andrew FORSTER: Yes. I think it is important, though, at this stage in the industry's development. There are a lot of people developing apps to solve for roaming, and there are a lot of people who would like to get involved in what the industry is doing and put up infrastructure. And it is really, really important that the industry is given room to work out which models work and which ones do not. The customer ultimately will decide in a competitive environment what works and what does not.

The DEPUTY CHAIR: I would just like to go back to something that was discussed earlier about denial of access by DNSPs because of capacity issues. That is a very significant piece of new information in this conversation. The information that you have around that, the experience, is that quantifiable? And can you evidence that?

Andrew FORSTER: Yes.

The DEPUTY CHAIR: Would you be able to provide the committee with that?

Andrew FORSTER: Yes, we can.

The DEPUTY CHAIR: There we go to a matter of fact, because either the capacity is there or it is not. Both answers have significant implications from them. Brendan, I do not know if you have anything similar?

Brendan WHEELER: We are generally installing high-power DC charging, so sometimes it is a different situation. These guys are looking at 63 amps. We are looking at 250, 300 amps sometimes. So yes, we have had experiences, but probably not to the extent that Andrew and the team have had.

The DEPUTY CHAIR: Yes. Because I think in the energy transition, with plans to transition away from gas, that means that at a residential level as well, we are right at the buffers –

Andrew FORSTER: If that is where we are, we have got a problem.

The DEPUTY CHAIR: If that is true, if that is the actual case. So it is actually a really important piece of information to be had. I just want to clarify, too, in terms of the value chain of your business. We just had the

prior two companies. Are you all of the same – I know you do the high charge, low charge, but you are effectively competitors with each other?

Andrew FORSTER: Effectively. Yes. In some ways it depends on the company. So we are fully vertically integrated. We are also a manufacturer. We manufacture, deploy, own, operate. Some charge point operators will buy from a product manufacturer or distributor. Some are distributors themselves. So in our view I think it is important to have a really close relationship with the hardware that you deploy as a charge point operator, because they are technical bits of kit, and it is important when there is a customer problem in the real world that you have an inherent understanding of how that piece of kit operates.

Sean McGINTY: For the ecosystem type view, if a DNSP rolls out 10,000 AC chargers, it has a significant effect on the entire charging market, so DC operators as well.

The DEPUTY CHAIR: Yes, I agree. I will start with a question I asked before: within your sector and your part of the value chain, what do you see as innovation and what do you think a mature market looks like ultimately?

Andrew FORSTER: I think interoperability is one of them, for sure. I think that can be done commercially and it supports network growth, and by that I mean things like roaming. And user experience, ultimately. Right now no-one wonders how to fill up their car with fuel. It is not a question of how and where we will do it, it is just a question of when I decide to do it, there will be something there and I will know exactly what I am doing. I think what innovation looks like from our point of view is making it equally as available and equally as intuitive.

The DEPUTY CHAIR: Brendan, do you have anything you wanted to say about that?

Brendan WHEELER: The other piece, which I know is picked up on is vehicle to grid. That is probably the other part of innovation and probably an interesting way that EV charging and electric vehicles can add capacity and help support the grid. Aside from that, in my world utopia looks like all the industry participants, all the value chain working and doing their own bit in the best way. So that is DNSPs providing good tariffs, quick connections and clarity around the network capacity and allowing private operators to invest capital and operate chargers, which they are specialised to do. To me the pieces are all there, it is just getting everyone aligned and doing their bit really well.

The DEPUTY CHAIR: Just as we are projecting forward, because I think then you can sort of reverse engineer what we maybe need to do now, right now the evidence that has been put before us is that the DNSPs create a commercial barrier and there is a risk of monopolistic activity. But there are obviously other parts of the value chain where the same thing could occur. Where will those pinch points be? Is it in the manufacturing? Is it in the account ownership? Where will the next pinch point be in the value chain?

Andrew FORSTER: I do not know. I think ultimately the best way to ensure that there are less competitive pinch points is to ensure that there are more market participants – as many as humanly possible – in hardware and in charge point ownership. I think the idea that a regulated business can own hardware and the competition will be served purely on the basis of service and software is farcical.

The DEPUTY CHAIR: Just expand – can you say that again but slower.

Andrew FORSTER: Effectively what I think we need to do is ensure that there are lots of hardware providers, lots of charge point operators and lots of service providers. Often they are all the same thing and often they are different and segmented depending on the chosen business model. What we are seeing is a push by the DNSPs to say, 'What we'll do is we'll own all of the hardware.' It will often be the same piece of hardware –

Tom McINTOSH: Just as you go, can you just elaborate a bit on hardware, charge point and service?

Andrew FORSTER: Yes, sure. Hardware being the physical EV chargers themselves. Ownership being who owns the asset. Is it owned by a shopping centre? Is it owned by a charge point operator? Is it owned by a private landlord? Then the software and service side is who the customers are interfacing with to use that piece of charging equipment. I think the greater amount of diversity across each of those sections of the value chain

will ensure that in the long term the good models – the ones that customers like – will win. There will be consolidation over time and there will be models that do not win. That ultimately is what is going to get the better consumer outcome.

The DEPUTY CHAIR: I will sneak one question in before I hand over to Mr McIntosh. To unpack that a little bit further, hopefully the market attracts capital and attracts businesses. At some point there will be a contraction. Someone in that value chain will fall over. What will be the redundancy, then? You will have insolvent capital equipment, or you will have customers without service? How will that be re-rationalised within the market?

Sean McGINTY: The competitor would just buy those assets and operate them. I mean, all the hard work has been done already. If one of our competitors decided to sell their chargers, we would be very keen to have a look at it, yes.

Brendan WHEELER: And you have got all the backbone electrical infrastructure. That is a lot of the cost and complexity, so the piece of kit, if that goes, is relatively simple to replace. Last year we acquired ENGIE's EV charging business. They are a large energy retailer. They previously owned and operated charging stations across Australia. We acquired that business, so we have taken that over. We have replatformed it onto our software platform. We now support it through O and M driver support, so it is relatively straightforward. It is not necessarily easy, but it is relatively straightforward to take those assets over and refurbish them where it is needed. We have been doing that.

The DEPUTY CHAIR: Thank you, gents. I will go back to Mr McIntosh.

Tom McINTOSH: I have got lots of questions. I want to pick up from there. On refurbs – particularly where we have got one charger with the old lead and whatnot – if, say, a council-operated asset, in five or eight years time, they want to get out of it, there is a good chance someone is going to purchase it, and the refurb is not going to be too expensive given the infrastructure is there. Does that sound right?

Andrew FORSTER: Yes, 100 per cent.

Tom McINTOSH: Great. Servicing has been an issue, particularly in regional areas. What do you see as a solution to chargers sitting? I think the technology – the initial technology, we have heard, may not have been as good as what is being deployed now, but also ensuring the servicing occurs, so when tourists hit a town with two chargers in a peak season they are not left with no opportunities.

Sean McGINTY: If we speak from our own perspective, when we designed the charger we designed it for all the equipment inside to be able to be purchased at your local wholesaler.

Tom McINTOSH: Electrical wholesaler?

Sean McGINTY: Yes. So the equipment is used in other applications, like mining and other industrial applications. We really took a view that the charger needs to be reliable.

Tom McINTOSH: A local contractor should be able to service it.

Sean McGINTY: Our local partners can just come, yes. We can diagnose it remotely, ask them to get a charger, and as soon as they get there, give it a couple of hours and it should be up and running again.

Tom McINTOSH: I am just thinking on the fly here. Do you think governments should regulate – and this is impinging on you, so the answer may be 'No' – that providers of EV charging stations have some sort of timeframe in which they have to get it up and going, whether that might be two days or a week or whatever it might be?

Sean McGINTY: We would be happy with that.

Andrew FORSTER: We already have that. In New South Wales any of our funded charging stations have to operate at 99 per cent uptime.

Tom McINTOSH: Yes, that is something I think we should consider. I wanted to say we had the Ombudsman in here last week. I think we took away from that that people engaging with the DNSPs have some form of recourse through the Ombudsman in Victoria. Are you aware of or familiar with that?

Andrew FORSTER: No. I was watching it, and I think some of the challenges there, from a complaints point of view, are that – I think she said that from a customer point of view they have recourse through the Ombudsman, but I am not sure as a commercial entity, as a business, that we have the same.

The DEPUTY CHAIR: We asked the same question, and the answer I took away was that you are a customer.

Andrew FORSTER: Right, okay.

Tom McINTOSH: I think we will try and get some clarity on that as we go, and the fact that, as customers, you are communicated to clearly about what opportunities you have through that.

Andrew FORSTER: I think in terms of complaints and recourse, I mean, the data transparency obligation would solve for a lot of that. I mean, if you look at TasNetworks in Tasmania, Energy Queensland and Essential Energy in New South Wales, all of them have a publicly accessible capacity map that anyone can log into and drill in most cases down to the local substation and determine what its peak capacity is and how much on average is being used through –

Tom McINTOSH: So you would advocate for mapping for availability of supply, so you can have a simple look and say, 'All right, well, here's supply. We want to apply for 10 chargers in this postcode.'

Andrew FORSTER: It saves so much time and effort. And in fact Endeavour Energy in western Sydney tell us to go and do that ourselves. We do not even do a capacity check with them. They say, 'Look, just go look at the map. You tell us.'

Tom McINTOSH: You are dealing with DNSPs around the country.

Andrew FORSTER: Yes.

Tom McINTOSH: Is it a cultural issue in Victoria with the DNSPs? We have heard from local councils about waiting years. We have heard from you about waiting years. Why are they unable to provide a service? Why are they unable to enable Victorians to get a service that they need?

Sean McGINTY: We struck a deal with our facilities access agreement after nearly two years of negotiation. Funnily enough, it was after they announced to the market that they wanted to do the same as us. Call me a cynic, but that did not stack up well. We are economically regulated to only be able to install 60 chargers in the CPU network area.

Tom McINTOSH: In Victoria?

Sean McGINTY: In Victoria, yes. So our costs go five times higher for the 61st charger we install.

Tom McINTOSH: That is per annum?

Sean McGINTY: Per annum, yes.

Tom McINTOSH: Why is that?

Sean McGINTY: Well, that is a very good question. My opinion is that they do not want the competition.

Tom McINTOSH: Who creates that ruling? Is it the DNSP? Is it the AER?

Sean McGINTY: The DNSP.

Tom McINTOSH: The DNSP creates their own rule about how many services you can apply for?

Sean McGINTY: They set the costs to stop us.

Tom McINTOSH: Okay.

Andrew FORSTER: I do not think it is a cultural problem. The people that we deal with day to day try really hard and they work hard and –

Tom McINTOSH: The staff within the DNSPs?

Andrew FORSTER: Yes. Correct. I think structurally, over the years, maybe things have been put up. It feels like they are trying to swim against the tide sometimes, some of these people, to try and get things done.

Tom McINTOSH: And you are not experiencing that in New South Wales?

Andrew FORSTER: Look, in the early days in New South Wales – and to be fair, and not through any fault of our own, we are still in the early days here as well – it was not as streamlined as it is now. These things take time, but it is vastly more difficult even at the early stages.

Tom McINTOSH: We have heard about the fact that if they had dedicated teams on EV chargers – is it fair to say that it would be a lot easier for you if they had processes like internal pathways to make things faster?

Andrew FORSTER: I think you are exactly right. If you had a dedicated team and the funding to increase network capacity and manage EV charging applications, as they do to build their own chargers and manage that process, then we would be in a fundamentally different position.

Sean McGINTY: That does not fix our annual fee that we pay, though, which is a nominal fee.

Tom McINTOSH: Does that come to the AER?

Sean McGINTY: No. Well, the AER in the ring-fencing waiver has put some instructions around that. But it is a 12-monthly review?

Andrew FORSTER: I am not sure; I would have to go back and read what the –

Sean McGINTY: Yes. We have private businesses running what I would call public assets, and they answer to their shareholders. If a DNSP puts more staff onto their asset base, our electricity prices go up, so they are disincentivised to do that. EV charging is another asset they want to put onto their asset base. The current ring-fencing waiver says they cannot, but the overall game for the DNSPs will be to do that. If it goes onto their asset base, we all pay for that – we underwrite it and we pay for it through our electricity bills. And at this stage, the income is unregulated income, so it does not reduce our electricity bills. It just goes to the shareholders.

Tom McINTOSH: Which effectively brings me to another question I was going to ask, which I asked the last guests who were here for the hearing. I think we heard there was $4 billion, to $5 billion of investment needed by 2030. Do you believe there is enough capital around, Brendan and EVX, to support yourselves and others in the EV charging infrastructure sector?

Andrew FORSTER: Brendan has taken out a lot more capital than we have. But yes.

Brendan WHEELER: Capital is not the problem.

Tom McINTOSH: Yes, okay.

Brendan WHEELER: It is not the problem here, guys.

The DEPUTY CHAIR: I think we have got time for just a couple of last questions from Mrs Broad.

Gaelle BROAD: Thank you. Interesting question, Tom, about if there is enough capital around. I am wondering if there is enough power around, because with EVs being 2 per cent of the market at the moment and predicted to be a lot higher – I think the Auditor-General's report from December last year pointed to the transition to renewables resulting in severe, almost certain, power disruptions. I am just interested in your thoughts on the capacity. You mentioned in your opening remarks about capacity that about half of applications are being knocked back because of capacity issues. Looking down the track, with data centres and with increased population, will there be enough power in Victoria?

Andrew FORSTER: I am not an engineer, so I do not know. But what I would say is that I do not think there is a problem with generation, with the amount of power that is available. I think where the bottleneck seems to be from our perspective is actually the carriageway for that energy to make it to the various locations that it needs to get to. It is the infrastructure that takes the energy from one place to the other, not the source of it necessarily. Again, there will be much smarter people than me that might argue that point, but I think ultimately what we need to do – unfortunately it is jurisdictional, based on the fact that we have got private companies running that infrastructure that carries the electrons from one place to another – is we need to look at that. Transparent mapping would be a bloody good start to how we might see where the capacity is and is not.

Gaelle BROAD: You mentioned New South Wales. The costs seem like they are five times higher here than what you are experiencing in New South Wales, and the delays are significant as well – six months in New South Wales and I think you said two years here. Has the government been asleep at the wheel on this issue, or the EV wheel?

Andrew FORSTER: I am not sure there is a political problem. I do not think there is a lack of political will. I think maybe it is just that the fundamental structural issues on delivery have not come to the surface to the people in politics. Exercises like this are really important for everyone.

Gaelle BROAD: Brendan, do you have anything to add?

Brendan WHEELER: Just back to the point around the capacity, I think electric vehicles are actually part of the solution. You have got a lot of surplus solar generated during the day. EVs can be used to absorb some of that and via vehicle-to-grid technology start to promote resilience within the grid during peak times. EV charging is also a flexible load. Many of our public chargers, particularly in the Ausgrid tariff, can be up- and down-regulated as required. I think maybe three or four times a year they send us advance notice to make sure the chargers are down-powered so that we can support the grid. With home charging and other longer duration charging that time to charge can be spread over different time periods, so you are seeing off-peak charging rates and flexibility around when to charge. I think it can absolutely be managed. If every single person plugs in at the same time, that is going to be a challenge, but I do not think it has to be that way with smart technology and the right incentives to reward people for doing it when it benefits the grid.

Gaelle BROAD: Thank you.

The DEPUTY CHAIR: We have got time for just a couple more questions. We have got the AER coming in today. What do you think we should be asking them?

Andrew FORSTER: I think ultimately the question we should be asking of the AER is, for all of these rules and regulations that are designed to protect consumers: how high or low is the bar required to be to start messing with those rules? Because at the moment we are seeing a bit of it, and it is not just in the EV space. We are seeing it with other consumer energy resources and other DNSPs around the country being allowed to operate in contestable markets to 'improve innovation'. There is plenty of innovation and capital in the private sector. I think the bar is too low and the AER do not challenge DNSPs enough on matters of bending ring-fencing rules, which are clearly there to protect energy consumers.

Sean McGINTY: And what are their tools to enforce these regulations and the political will?

The DEPUTY CHAIR: Thank you. I will sneak in one slightly left-field question. We know that the economics of regional provision are difficult, but we have seasonal capacity. Is there any notion that you could do deployable temporary charging stations that plug into a given site? That would also help with maintenance because if something is down, you can just deploy a temporary.

Andrew FORSTER: Thirty per cent of our chargers are in the regions. We, as a low-capital model, can do it, and our return on investment is not that challenging. It is seasonal, so the revenue curve looks different. We have got regional sites in northern New South Wales in quite remote areas that emulate some early-stage suburban chargers that we deploy in the middle of Sydney and in Melbourne here.

The DEPUTY CHAIR: On a mobile basis?

Andrew FORSTER: No, they are permanent.

The DEPUTY CHAIR: You could put them on a lorry to take them down, and you could add six chargers for six weeks and then take them away again.

Andrew FORSTER: I am not sure that that is the answer. I think permanent infrastructure is what is going to drive uptake and give people confidence, and that is what we need. But the business model is only challenging as long as EV uptake is low – EV uptake increases and that completely turns on its head. We just need to be doing more of it and as much as possible.

The DEPUTY CHAIR: Okay, gentlemen, we are right on time. Thank you very much. Thank you, witnesses, for your contribution.

Witnesses withdrew.