Opening Statement – Victorian EV Inquiry

David Van, Arvio Technology | 26 February 2026

~730 words | 5 minutes

Chair and Members of the Committee, thank you for the opportunity to appear today.

I want to start with a distinction that sounds simple but changes almost everything about how we think about EV charging.

Fast charging is not primarily an energy problem.

It is a power problem.

Energy is how much electricity we use over time. Power is how fast we need it delivered. The important thing to remember is this: we are not running out of electricity. We are running out of places that can deliver it fast enough.

Australia is building renewable generation at scale. Over time, renewables plus storage solve the energy availability question.

But they do not automatically increase the capacity of the local transformer behind a supermarket, the feeder serving a highway service centre, or the switchboard on a depot site. Those are connection and network constraints.

Picture a council in your region.

They run waste trucks, maintenance vehicles and a community transport fleet.

They have a net-zero target, a fleet transition plan and a works depot with a 400 kilowatt electricity connection.

They want to install four 350 kilowatt truck chargers. They apply to their DNSP for the connection upgrade required to support them.

The quote comes back with a cost that makes the project unviable — and a timeline measured in years, not months.

Before a single truck has charged. Before a single tonne of diesel is displaced.

And that is before the second hit arrives — the tariff.

Under Victorian distribution pricing, a single charging event at 1.4 megawatts locks in a demand charge based on that peak for the next twelve months. Before the depot has charged a single truck, it is looking at roughly one hundred and fifty thousand dollars a year in additional network charges.

The connection is the upfront price shock. The tariff is the slow bleed.

That is why so many charging projects stall. Because the economics of connecting high-power charging at the edge of the network is often brutal.

Now I want to be clear. Grid augmentation is sometimes necessary and entirely appropriate. But it is capital intensive and the costs flow through regulated charges to ALL households and businesses. If we solve charging by upgrading the grid at every site, we will build an inflation machine.

The question is whether we default to augmentation as the first response, or whether we use non-network solutions to reduce peaks, accelerate deployment and avoid unnecessary cost.

And that brings me to the solution in my submission as this is what Arvio specialises in.

Battery power buffering.

A battery and inverter system is installed behind the meter. The site stays within its current connection envelope. The grid sees a stable, predictable load as the battery charges at a controlled rate. When a vehicle plugs in and demands high power, the battery discharges rapidly to the charger, delivering the power spike. Then the battery quietly refills.

It isn't a flat-line operation — it's spiky. So why charge everyone for the costs of poles and wires and transformers and switchboards to deliver power that only run for minutes a day.

We cap the grid import. Then we deliver the peak internally. The business avoids capex shock and the ongoing tariff hit.

Here, battery chemistry matters because the duty profile is brutal. Buffered charging means repeated high-power discharge and rapid recharge, day after day. Not all batteries are designed for that. Arvio focuses on lithium titanate oxide technology because it is suited to repeated high-power duty over long service life.

What should government do with this?

I am not asking the Committee to pick winners we need many solutions not just one. I am asking the Committee to recognise this category of solution and recommend a structured, evidence-led pilot. Arvio has proposed to the ARENA a Driving the Nation pilot focused on heavy transport and fleet duty, because that is where the power constraint is most acute and where the public benefit is highest.

I will finish where I began. The transition is not just about generating clean electricity. It is about delivering high power where and when it is needed, without making every household pay for peak infrastructure that sits idle most of the day.

Vehicles need high power for minutes. The grid needs predictable demand over hours. A power buffer reconciles those realities.

Thank you. I welcome your questions.