

Submission on behalf of **Uniti Australia Pty Ltd** to the Senate Select Committee on Electric Vehicles

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Michael Molitor

Director
Uniti Australia Pty Ltd.
Chairman
Uniti Sweden AB

Lewis Horne

CEO/Founder/Director
Uniti Sweden AB
Director
Uniti Australia Pty Ltd.

Background

Uniti Australia Pty Ltd is a wholly owned subsidiary of Uniti Sweden AB and is planning to assemble electric vehicles under a contract with a leading vehicle design and assembly company in Adelaide. The CEO/Founder [Lewis Horne] and Chairman [Michael Molitor] of Uniti Sweden are both Australian and are passionate about solving urban transport challenges and returning commercial-scale vehicle assembly to Australia.

Our vehicle [see photo on the title page] is designed to capture 93 percent of all vehicle trips in Australia—those which occur in our large cities, average less than 30 kms, and with 1.2 people per vehicle on average. Our objective is to dramatically lower the cost of these trips while improving safety and environmental performance. We are already in discussions with fleet customers in Australia and expect to have our vehicles in beta testing as early as late 2019. More information on Uniti can be found on our website: uniti.earth

Our Unique Input

The Select Committee has been charged with exploring the following topics:

- a) the potential economic, environmental and social benefits of widespread electric vehicle uptake in Australia;
- b) opportunities for electric vehicle manufacturing and electric vehicle supply and value chain services in Australia, and related economic benefits;
- c) measures to support the acceleration of electric vehicle uptake;
- d) measures to attract electric vehicle manufacturing and electric vehicle supply and value chain manufacturing to Australia;
- e) how federal, state and territory Governments could work together to support electric vehicle uptake and manufacturing, supply, and value chain activities; and
- f) any other related matters.

We believe the best way to approach these important topics is to focus on the counterfactual case or, more precisely, *what are the advantages of using electric vehicles against the current system dominated by large, dirty, and expensive vehicles?* The result of our research into the inefficiencies associated with the current model suggests that, after exploding health care costs, the burden on economic growth caused by self-owned and operated internal combustion vehicles is the second largest in Australia. Let us be more succinct—it is unlikely that the national Australian economy, or the economies of the individual States and Territories, will achieve their 2030 GDP targets in the absence of a rapid shift away from the existing heavy vehicle model.

The inefficiencies in the existing heavy vehicle model are legion and include, for example:

1. The high cost of assembling heavy vehicles made from steel and regardless of the engine technology (petrol, diesel, hybrid, electric).
2. The highly resource inefficient supply chain.
3. The high cost of vehicle acquisition.

4. The high cost of vehicle ownership and operation [licences, fuel, insurance, taxes, maintenance, repair].
5. The high vehicle under-utilization rate (95%).
6. The rapid depreciation in the value of vehicles.
7. The cost of urban congestion [\$21 billion/year total for the capital cities in 2016].
8. The unaccounted for, but large and growing, environmental (e.g., local air pollution) and social (e.g., childhood respiratory diseases and traffic accidents) costs.
9. The net energy conversion efficiency of a heavy internal combustion vehicle is below 2 percent.
10. With declining local refinement of petrol, the import costs are high and environmentally unsustainable—regardless of the economic advantages of displacing oil imports.

The total cost to the Australian economy of maintaining this obsolete and inefficient heavy vehicle sector is well above AUD\$100billion/year. There are few other opportunities to drive economic growth more profoundly and sustainably than a rapid shift away from heavy vehicles towards electric vehicles.

Hard-working Australian families are spending a high and unacceptable percentage of their disposable income on owning and operating a heavy and inefficient vehicle. Australians pay for their vehicles 100 percent of the time and use them only 5 percent of the time—and all that time the vehicle is rapidly depreciating in value. Imagine the economic benefit of returning that money to Australian families and reducing their urban transport costs by 90 percent? This is the massive opportunity which flows from a rapid transition to electric vehicles in major urban centres in Australia.

We have lost all commercial scale vehicle assembly in Australia and, despite the hardships to the companies and families associated with this once large and proud industry, this is the best possible outcome for Australia. New advanced manufacturing processes, light weight materials and new vehicle designs have led to a dramatic reduction in the costs of assembling vehicles. This means commercial-scale vehicle assembly will return to Australia and the vehicles will be fully electric, light weight, and made available to people in urban centres on a “mobility as a service” [MaaS] basis. We envision the collapse of individual vehicle ownership in urban centres in Australia within a decade. Already, young people in urban centres have stopped buying vehicles and are using car-sharing [e.g., GoGet] and ride-sharing [e.g., Uber] schemes.

Our Vision

Uniti Australia is designing a vehicle to be assembled in Australia by Australians and for Australians. We would like to see most of the high value electric vehicle components be produced in Australia and, in this connection, we are very pleased to see the battery plant [Renaissance One] being built in Darwin by the United Group. We plan to use 100 percent renewable energy [solar and wind] to assemble the vehicles and to recharge the vehicles’ batteries. We will sell a limited number of our vehicles to individual consumers in Australia but only for beta testing of the vehicle and its performance. Our vehicle and our business model are both designed to address all the inefficiencies in the current heavy vehicle model. This means we will offer our own mobility as a service platform in Australia based on a mobile phone application. We plan to launch our vehicle in Australia in late 2018 or early 2019.

Our Recommendations

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1. Undertake a full unbiased review of the true costs of maintaining the existing heavy vehicle ownership model in Australia and make these costs public.
2. Increase taxes on imported heavy vehicles and slowly raise them to a rate equal to their full costs to society—while lowering taxes on imported electric vehicles [EVs].
3. Provide tax and financial incentives to companies installing EV recharging infrastructure—especially in the capital cities.
4. Provide tax and financial incentives (e.g., through ARENA and CEFC) for companies investing in and operating commercial-scale EV assembly in Australia as well as commercial-scale vehicle suppliers in Australia (e.g., batteries, electric motors, carbon fibre production).
5. Insure that sufficient investment is going into domestic production and domestic consumption of key EV basic resources including lithium, cobalt, and graphite.
6. Approve legislation expanding the range of vehicles which can be produced and used in Australia.
7. Provide tax and financial incentives to the existing vehicle suppliers in Australia to allow them to make the transition to supporting a domestic EV sector and to employ more people—not less.
8. Approve legislation for the testing of autonomous electric vehicles.
9. Provide financial support to existing Australian automotive workers so that they can gain EV assembly and supply chain skills.
10. Create a national scheme which pays Australians to give up their internal combustion vehicles so that they can be permanently taken off the road.

It takes tremendous political leadership to challenge the heavy vehicle status quo in Australia. It is our hope the Senate Select Committee on Electric Vehicles is the beginning of a process by which the Federal Government and the States/Territories begin to recognize the tremendous economic growth opportunity which will result from a rapid transition to electric vehicles in Australia's largest cities. This represents an unprecedented opportunity to see a 10-100x return on the investment of public money—well above the national average rate of return. Uniti is ready to play our part but we cannot do this alone and certainly not without leadership from Federal Parliament. We are excited about the prospects of working together with you on this national economic transformation project.