

# Electric utes can now power the weekend—and the work week

February 13 2023, by Hussein Dia



Credit: AI-generated image (disclaimer)

Four years ago, then-Prime Minister Scott Morrison <u>famously claimed</u> electric vehicles (EVs) would end the weekend. "It's not going to tow your trailer. It's not going to tow your boat. It's not going to get you out to your favorite camping spot," he said.



His comments drew on the <u>popular misconception</u> EVs are underpowered relative to petrol, gas or <u>diesel cars</u>. Experts <u>refuted</u> the claims, while <u>video</u> of a Tesla towing a 130-ton Boeing 787 circulated.

But one part of Morrison's critique had longer resonance. Could utes ever go electric? These light utility cars are favored by <u>Australia</u> and <u>New Zealand's</u> two million strong tradie workforce to take materials and tools to jobs. Ute drivers are more likely to drive longer distances, making range anxiety an obstacle.

The answer is yes, though it may take longer than for cars. Only last week Melbourne company SEA Group <u>announced</u> a deal to turn thousands of conventional utes electric.

At present, new electric utes are still more expensive. But over time, their advantages will make them an easy choice.

## How are electric utes different?

Electric utes will have much lower running costs from fuel to maintenance. Electricity is cheaper than petrol or diesel. And doing away with the <u>internal combustion engine</u> means maintenance is much cheaper and less frequent.

They have improved performance, with <u>instant torque</u> and rapid acceleration. This makes them suited for towing and driving in environments where quick maneuvering and agility are needed.

They have <u>more storage</u> because there's no large engine, leaving room for a front trunk. Batteries are typically located <u>under the floor</u>.

And for tradies, the large battery means they can <u>charge and run</u> their tools without the need for a generator.



Like other electric vehicles, electric utes have better energy efficiency, converting much, much more of the energy stored in the battery into motion. By contrast, internal combustion engines <u>lose most of the energy</u> in their fuel to heat.

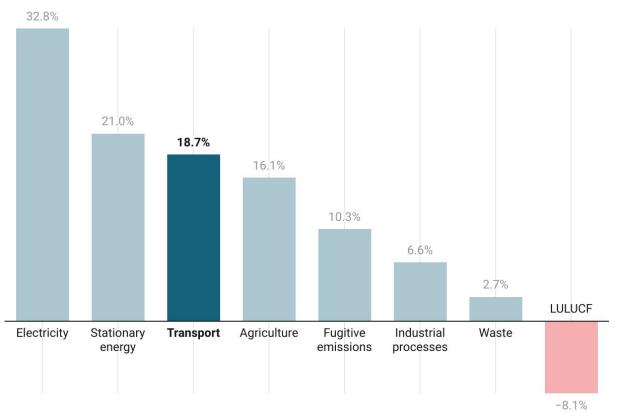
### But what about 'range anxiety'?

The <u>average driver</u> in Australia covers 36 kilometers per day, or around 12,000 kilometers each year.

But averages conceal heavy users. Owners of utes and other light commercial vehicles drive <u>almost 40% more</u> than car drivers.



#### Share of total emissions by sector (Australia - March 2022)



\*LULUCF: Land Use, Land-Use Change and Forestry

Source: Department of Climate Change, Energy, the Environment and Water. Quarterly update of Australia's National Greenhouse Gas Inventory, March 2022 • Created with Datawrapper

Credit: The Conversation

So, can electric utes handle the extra kilometers? In short—yes. Battery technology improves every year. The average distance an EV can drive on a single charge <u>doubled</u> from 138km to 349km in the decade to 2021, based on US models.

Batteries will get better and cheaper, meaning range will increase. You can charge your electric ute at one of almost 5,000 <u>charging stations</u> around Australia—a number which has <u>almost doubled</u> in just three



years. It's also possible to <u>swap out</u> depleted batteries rather than stopping to recharge.

If there's power available at a worksite, you can also run a power cable to to top up your ute while on the job.

# Electric utes will be slower to arrive—but the bigger change is already here

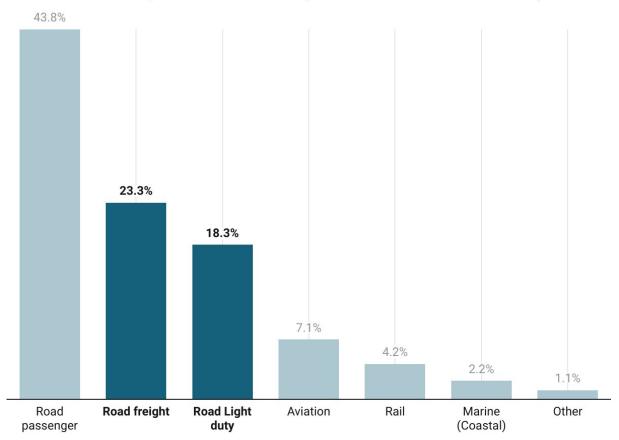
This year, Australia <u>will have</u> 100,000 <u>electric vehicles</u> on its roads for the first time.

After years in the doldrums, electric cars finally arrived in numbers. Last year, almost 40,000 hit the roads for the first time—doubling the total in a single year.

But there's still a way to go. That's just 3.8% of all new car sales—well below the <u>global average</u> of 12-14% and far behind world leader Norway, where 87% of vehicles sold are now electric.



#### National transport emissions (Australia - March 2022)



Source: Department of Climate Change, Energy, the Environment and Water. Quarterly update of Australia's National Greenhouse Gas Inventory, March 2022 • Created with Datawrapper

Credit: The Conversation

Cars are comparatively easy to electrify. Utes and trucks are a harder challenge. Even though they come with major advantages, the higher sticker price will deter buyers.

This matters, because transport is now Australia's <u>third-largest</u>—and fastest growing—source of emissions, accounting for <u>close to 20%</u> of the nation's emissions.



Of these emissions, freight trucks are responsible for 23%, and light duty road vehicles—which includes utes— <u>contribute 18%</u>.

For years, Australia has been at the back of the pack. Our lack of emission standards for vehicles has made us a <u>dumping ground</u> for high-polluting cars and trucks.

Electrifying our whole fleet of vehicles—coupled with clean energy to power them—is essential if we are to meet our legislated emissions targets.

# Which electric utes are available now—or coming soon?

Australia's first <u>electric ute</u> is the <u>LDV eT60</u>. It's hugely expensive at around A\$93,000, almost twice the cost of its diesel counterpart.



#### **Electric ute models**

Reported specs of select ute models based on data available in February 2023

Model	Price (Low)	Price (High)	Range (km)	Torque (Nm)	Towing Capacity (kg)	Payload (kg)
	AUD	AUD	WLTP			
ACE Yewt	25,995	25,995	200	174		500
Alpha Wolf+	46,000	60,000	440		1,360	
Atlis AMV XT	70,000	70,000	480		2,700	2,268
Canoo	50,000	71,500	320	746	3,500	816
Chevrolet Silverado	58,800	120,000	640	834	3,600	544
Ford F-150 Lightning	75,000	75,000	480	1,050	4,500	907
Hercules Alpha	97,000	97,000	480	1,085	1,134	5,670
Hummer EV	105,000	105,000	450	1,420	3,402	590
LDV eT60	92,990	92,990	330	310	1,000	1,000
Lordstown Endurance	75,000	92,900	322	1,500	3,400	816
Nikola Badger	85,700	85,700	483	1,329	3,500	1,591
Radar RD6	42,160	56,800	550	384	3,000	450
Rivian R1T	93,000	103,000	640	1,231	4,500	800
Tesla Cybertruck	58,900	103,300	804	1,355	3,400	1,500

Entries are ordered alphabetically by model name. Standard model specs are presented where available, using information from manufacturer websites (not independently verified). Purchase price is an estimate based on best available data using an exchange rate of 1 AUD = 0.7 USD. WLTP is "Worldwide Harmonised Light Vehicle Test Procedure" - it is a laboratory test to measure fuel consumption, vehicle emissions and EV range. Torque is the force that causes the wheels to rotate. The more torque the engine produces, the higher the turning power and acceleration. EVs produce a high torque because the energy generated by the electric motor is instantaneously transferred to the wheels.

Source: Produced by Swinburne University of Technology using information from ZECAR, EV database, InsideEVs, and EV news sites. • Created with Datawrapper

Credit: The Conversation



So how can we be confident electric utes will <u>take off</u>? Because the technology isn't standing still. As EVs get better and as worldwide battery production skyrockets, prices will fall. Many other models will soon be available.

States and territories are also introducing policies to reduce the cost of purchase, such as basing the cost of registering a <u>vehicle</u> on its emissions.

Within seven years, electric vans and utes <u>are predicted</u> to make up over 50% of all light duty <u>commercial vehicles</u>. This could come even sooner with supportive government policies.

There's also a renewed interest in local manufacturing. Queensland's <u>Ace</u> <u>EV Group</u> plans to launch a small, cheap electric ute with the ability to charge your tools from its battery, while other outfits offer <u>to convert</u> your existing car to electric.

### The route to electric utes

The switch to electric is—at last—beginning in earnest. But time is of the essence. To accelerate, we need more variety and more affordable EVs, including light duty vehicles and utes.

One policy setting still holding us back is the lack of mandatory fuel efficiency standards. If we had these, we would see <u>much faster change</u>.

Labor last year promised Australia would at last have ambitious mandatory <u>fuel-efficiency standards</u>. They can't come soon enough.

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