



Vectrix charges ahead

BIKE TEST

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Remember Grandma Duck? She's Donald Duck's grandmother and she drove an electric car that was based on a real one.

The original was a Detroit Electric, made in the US in or around 1908. It had a 24-volt, 2kW DC motor and a genuine top speed of about 32kmh.

Road-going electric vehicles suffered a bit of a hiatus between the end of the 1920s and the present, but if Vectrix has anything to do with it, they're on their way back.

The idea is attractive on several levels. Not the least of these is pollution, as Vectrix Australia's Charles Mann points out.

"The main greenhouse gas is carbon dioxide," he says. "A 4WD produces about 400g per kilometre travelled; a car about 250g, a petrol-powered scooter about 90g and a Vectrix all of 14g."

Note that he's not claiming zero pollution, the way some of the overseas material from Vectrix does. That ignores the original generation of the power, which in Australia is mainly done by burning coal.

You can, of course, buy green power or generate your own with solar panels to recharge the scooter, and that way its operation will really be relatively non-polluting.

Use of a Vectrix also removes other pollution from the place where

it causes the most direct problems, namely in cities.

The City of Westminster in the UK uses the scooters extensively. Melbourne City Council has ordered one for assessment and Adelaide and Perth city councils look like being electrified as well.

About 60 per cent of Vectrix scooters sold in Australia are going to fleets. But there is something to be said for their use as commuter scooters, too.

There is limited storage under the rear seat and in a locking glove box. I'd be adding a topbox. Performance has definitely improved since Grandma Duck's day.

Top speed is now more like 100kmh (with a bit of a run-up) and acceleration is quite nippy once inertia is overcome.

Hills are no problem for a Vectrix, except for one thing. They play havoc with the scooter's range. The read-out on the dash that tells you how many kilometres you have left on the current charge is calibrated in kilometres. But they are not the same kilometres that other people use.

They are Vectrix kilometres, calculated on the assumption that you are going to be doing 40kmh on the flat.

Go faster or tackle a hill and they shrink alarmingly. An admittedly steep 330m hill on my way home turns the read-out back by a full 2km.

Mr Mann admits that the theoretical range of 110km shrinks to between 70km and 90km in real

life, and I would lower that a little further again. That's still fine for a standard commute, which is supposedly around 27km a day return in Australia.

It's cheap, too. An engineer friend calculated that it costs about \$1.50 per 100km if you recharge at peak rates, as against a fuel cost of some \$6.50 for a similarly sized petrol scooter.

Long-distance travel is out, however, and it's best if you remember to recharge the scooter when you can. It takes three hours for a complete charge.

Admittedly it's simple enough — just plug the Vectrix into any household outlet.

Other drawbacks beside the limited range include the high initial cost and the scooter's bulk. Your ability to filter through traffic is limited, but it seems that Vectrix is working on a slimmer version. Despite the bulk and weight I found the Vectrix nippy and fun to ride.

Maintenance is minimal, although Vectrix will check the mechanicals and upload improved software once every six months for \$80 a time, if you want them to.

According to Mr Mann, the upgrades give smoother running and improved range. An initial check-up is included in the price.

If you are interested in getting more information on the Vectrix you can phone Wendy Tuang on 9422 2217 or send an email to info@vectrix.com.au.



Green power: The electric-powered Vectrix scooter has a top speed of 100kmh and nippy acceleration.

AT A GLANCE

VECTRIX SCOOTER

Price: \$15,950 (plus on-road charges)

Warranty: 48 months, unlimited distance

Power: 20kW

Torque: 65Nm

Engine: Brushless DC radial air-gap motor, nickel metal hydride battery

Transmission: Integrated rear wheel-mounted planetary gear drive

Suspension: Front, Marzocchi

telescopic fork; rear, Sachs twin shocks

Dimensions: Seat height 800mm, weight 198kg, fuel capacity 30Ah, 3.7kW-h, wheelbase 1525mm

Tyres: Front, 120-70 14; rear, 140-60 13.

Frame: Lightweight aluminium

Brakes: Front and rear Brembo discs plus patented multi-function throttle with regenerative braking and low-speed reverse

Top speed: 100kmh

Acceleration: 0-80kmh in 6.8sec.

Range: 110km at 40kmh

Colours: Red, silver, blue or green