

# Personal transport with no dependence on fossil fuels

by Peter Pedals

It is clear to me that the main reason why electric cars are not more commonplace is because of a conspiracy of both car manufacturers and the oil industry. The General Motors Impact EV1 electric car as seen in the film "Who Killed The Electric Car?" proved that there is really nothing to stop the mass manufacture of electric cars other than the will to do so. The lack of a will to manufacture electric cars is entirely the result of the desire by the corporations who sell us the fuel to stay in control.

The problem with electric cars is that they can be recharged anywhere, either by connecting into the power grid or with solar, wind and/or hydro-electric power systems that require no fuel, and the big corporations don't want us to have this degree of freedom and independence.

The idea of recharging my vehicle at home and at work whilst I am busy doing other things really appeals to me and that has inspired me to do something about it. As I pointed out in a previous article, the humble bicycle is the easiest vehicle to afford and maintain and happens to have the lowest environmental impact.

You have probably heard the stories of animals able to carry their weight over enormous distances with very low energy requirements. Humans are certainly not the most efficient in locomotion when we walk and especially not with the vehicles of today. Modern motor vehicles require a staggering amount of energy to carry a weight over a distance and especially when that vehicle only carries one or two people. Environmentally we would be far better off going back to the horse and cart.

How ridiculous it must seem to all truly intelligent life-forms that we seem to require half a ton of metal, plastic and rubber to carry one or two people. Even more ridiculous is to see the car pulling the horse instead of the horse pulling the cart. But most people today take it all for granted and never stop to think about such issues. If we apply our modern brains dimmed by all the commercial propaganda and advertising we will discover that there



Analisa with "Golden Pedals"

are other options, other ways to tackle the seemingly insurmountable problems of the modern corporate controlled world. It requires each of us to take a stance and help set the example for others.

Did you know that a person riding a bicycle is more efficient than any other living thing in terms of the energy required to carry our weight over a given distance? Unless we can train a racehorse or a greyhound to ride a bicycle, with the assistance of only a few kilos of metal, plastic and rubber we are, or at least can be, the most efficient critters on the face of the Earth in terms of motility. This is why I built the Lektrik Trike and am continuing to experiment

with electrically assisted pedal vehicles.

## Introducing Golden Pedals

If you remember back to the 70s and 80s, I had a bicycle that I called Yellow Pedals which had hub dynamos front and rear charging a battery as I moved which powered the am/fm radio, citizen band radio, stereo cassette player and of course the lights. This is the bike that I rode to Berri in South Australia in order to get to a festival. My latest venture reminds me of the old Yellow Pedals, the most obvious differences being that I am now using battery storage to help get from A to B and that the colour is a golden yellow. With the

Lektrik Trike I used two motorcycle batteries for power storage as lead-acid batteries are relatively low cost. The downside of lead-acid batteries is their poor power to weight ratio. With Golden Pedals I used Nickel metal hydride batteries (NiMH) because of their far superior power to weight ratio and their ability to yield 100% of their stored power without great detriment to their life expectancy. Nickel ion batteries have better performance still but the downside of these batteries is their greater cost. Both Lektrik Trike and Golden Pedals have an overall gear ratio of 5.7:1 giving them excellent hill climbing ability albeit at a slow pace and a standard top gear with the electric motor operating through all gears.

In the absence of commercially available non polluting vehicles (which would still probably weigh half a ton) I have accomplished something for myself at least for which I don't need a license or registration and which improves my mobility with no fuel cost and I can do all the regular maintenance without getting grease and oil all over myself. Shell, BP, Mobil etc may not agree, but I think we have a winner.

## An emission-free powered shopping cart

by Peter Pedals

I know that there are many people living in the hills around Nimbin who regularly have to carry all their groceries and other purchases up steep slopes. It is frequently not for the sake of getting themselves home, but to get their shopping home that people would put down concrete strips and/or purchase a 4-wheel drive vehicle. There is a much cheaper alternative and one that helps us become independent and less reliant on fuel corporations.

I was approached by a friend who knew about my recent experimentation with pedal/electric transport, about using an electrically powered bicycle to carry shopping up a steep hill. I pointed out that her hill was too steep a hill to cycle up, that a bicycle is not the most appropriate device to carry a lot of shopping and that walking next to it whilst trying to balance it and assist it up the slope is very awkward.

I suggested that an electrically powered two-wheel cart that you walk behind would be much more appropriate and so I built two of them to prove to myself that the idea is indeed viable. I have used two 26-inch mountain bike wheels on each cart and an aluminium frame with a 12 volt battery and a motor that powers only one

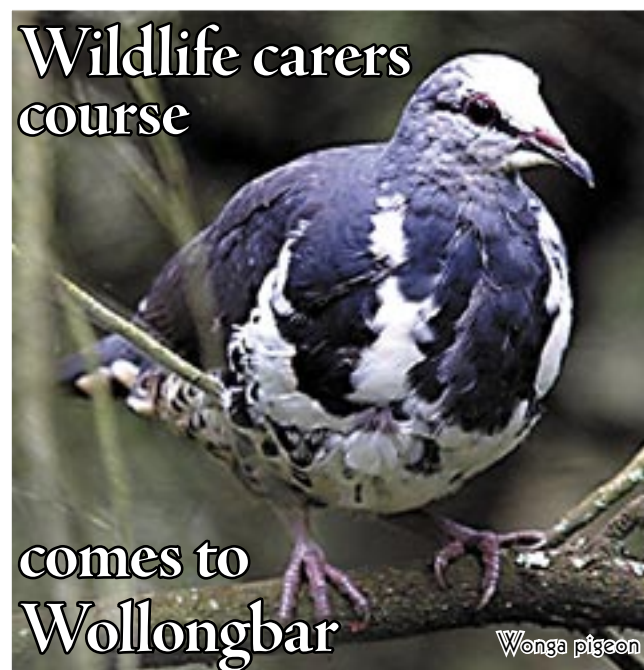


of the two wheels. To power both wheels would cost more and increase the weight.

I have tried it out and found that I could carry quite large loads up a steep hill without a huge amount of effort. Large rocks, ditches and very long grass still present a problem. In this instance it was easiest to push the mower down hill to widen the track, but hard to drag the mower all the way back up the hill. The shopping cart could even carry a lawnmower up the hill where the lawnmower's own wheels are too small to easily push it uphill.

## Wildlife carers course

### comes to Wollongbar



Wonga pigeon

People who are interested in the care and conservation of local wildlife are encouraged to attend an upcoming training day being organised by the Northern Rivers Wildlife Carers.

The Northern Rivers is home to a diverse range of native animals; everything from large wedge-tailed eagles to rainforest pigeons, echidnas, rare possums and gliders. The region also has one of the fastest population growth rates in the state.

On average the Northern Rivers Wildlife Carers rescue 1,500 native animals a year and respond to 2,500 calls for advice and information. Many of the animals rescued are victims of increasing development and loss of habitat.

Although development continues in the Northern Rivers, there are simple things everyone can do to ensure the survival of our native animals," says spokesperson Cheryl Cochran. "That is what our upcoming training day is all about, how we can live in harmony with local wildlife. We also explain the hands-on role Northern Rivers Wildlife Carers has in achieving that".

The Northern Rivers Wildlife Carers is a local, independent network of trained volunteers who are licensed to rescue, rehabilitate and release native wildlife. Established in 1992, the NRWC is licensed to care for native animals across one of the largest areas in the state: from Ocean Shores in the north to New Italy in the south, from Byron Bay in the east to Tabulam in the west.

For local Nimbin carers Max and Sienna, it's all about doing their bit to help local wildlife. "We became wildlife carers because, as vegans, we wanted to do the utmost to try to counter the damage caused to animals by human activities such as habitat clearing, animal farming, cars, cats, dogs, and human overpopulation."

The upcoming training day will be held on the 28th April at Wollongbar. The day will start at 9am and finish at 4pm and costs \$750. New members can join on the day for an annual cost of \$15, however due to licensing restrictions, new members must be over 18 years of age.

To book or for further information, please ring Karin on 6688-0118.

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