

**From:** [REDACTED]  
**To:** [Clean Cars](#)  
**Subject:** cleaner transport submission  
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Mrs Chris Henderson  
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Submission in support.

I support the principle behind this document, that of reducing light vehicle emissions to align with other countries who have already taken this step as part of their Climate Change policies.

I also welcome the fact that heavier vehicles will also go through this process.

I have, however, reservations, particularly regarding the use of hydro-electricity for electric vehicles.

Until all rivers presently harnessed for the production of electricity have water flows sufficient for ecosystem services and the macro-invertebrate index reflects that health, hydro-electricity cannot be described as sustainable.

Until coastal processes are also taken into consideration the same description applies.

A Southland example is the lower Waiau river which was harnessed as part of the West Arm Power station to provide electricity for the Tiwai smelter(which emits significant levels of greenhouse gases).

This river went from an average flow of 550 cumecs to a base flow of between 14 and 16 cumecs with some allocated and natural supplementary flows rarely about the former average flow.

The Waiau lagoon is at risk, there have been negative changes to the ecosystems of Deep Cove, and coastal processes have been negatively affected.

There are other examples elsewhere in New Zealand.

I could support electric vehicles if they were solar powered, which would require power companies to work co-operatively with public and private solar power providers to provide a positive integrated service.

The other reservation with electric vehicles is the need to use rare earths, which require toxic methods of treatment to fit them for use in batteries.

The major source of rare earths is China, which has inherent risks. Retrieving rare earths from E waste must be a better alternative in the medium to long term.

As to the merit of subsidies and financial imposts a carbon tax carefully targeted, the restoration of South island passenger rail services and convenient public transport could also play their parts in reducing the need for private vehicles, however they are powered.

Thank you for the opportunity to submit to this proposal.  
I wish to speak to my submission.

Yours Sincerely,

Mrs Chris Henderson, MNZM for Services to Conservation