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July 19, 2018

## SUBMISSION ON ZERO CARBON BILL

ON BEHALF OF THE FEDERATION OF MOTORING CLUBS (NZFOMC)

***The NZFOMC represents approximately 125 member clubs covering heritage collector and recreational vehicles spanning all years of production and including cars, motorcycles, commercial and military vehicles, motor caravans, traction engines, tractors and farm machinery. Our member clubs represent more than 78,000 individuals. Thank you for the opportunity to provide this submission.***

It is probable the overwhelming majority of the FOMC membership do support constructive and appropriate efforts to address the issues associated with climate change. But our membership also wants to be assured that any strategies implemented to achieve the benefits of a low-emissions economy will not have a needlessly negative impact on a large and valuable constituent of the existing economy. Almost exclusively dependent on fossil fuels, New Zealand's heritage transport fleet comprises a multi-billion dollar asset. From just an initial cursory survey the total value of the accumulated heritage collections of just the FOMC's membership can be conservatively estimated at somewhere in excess of \$5 Billion. And there are hundreds of other recreational motoring clubs not yet members of the FOMC, as well as thousands of individual enthusiasts and collectors. Unlike our historic buildings, films, art, technology etc. New Zealand's priceless and largely irreplaceable transport heritage is being stored and preserved almost entirely by private owners at no cost to the State or impost on the community.

**If all those cherished vehicles effectively became obsolete, unusable and perhaps largely valueless as a result of any legislated curtailment of our current access to fossil fuels or viable alternatives we would want to see provision made to compensate the owners for the losses suffered.**

A comprehensive survey by the Federation of British Historic Vehicle Clubs, our sister organisation in the United Kingdom, found that the contribution heritage motoring makes to their economy exceeds \$10 Billion annually and had grown almost 28 per cent in the previous five years. It provides jobs for 35,000 people and generates more than NZ\$1 Billion in overseas revenue.

While precise data is not yet available here in New Zealand there is a wide range of currently successful firms which rely on the repairing or restoring of New Zealand's fleet of heritage vehicles to provide jobs for many thousands of highly skilled and valued workers. Beyond the bounds of the restoration industry there are also a vast number of other commercial operators such as magazine

publishers, holiday resort owners and restaurateurs who depend on the steady flow of business from motoring enthusiasts to maintain their viability.

**How all those hundreds of firms and thousands of workers directly dependent on the heritage motoring industry will be compensated for the loss of their previously active role in the economy would need to be addressed in any proposed legislation.**

To achieve the objective of net zero carbon emissions the goal of converting New Zealand's vehicle fleet to 95 per cent electric is proposed in the discussion document. But research by the Swedish Environment Institute, and confirmed by other studies in China and elsewhere, has shown the manufacture of lithium ion batteries is a major source of additional CO<sub>2</sub>. Just making the 100kWh battery for a Tesla creates 17.5 tonnes of CO<sub>2</sub> which is more than would be produced by an average New Zealand petrol-fuelled vehicle being driven for nearly 100,000kms or for approximately eight years. If lithium ion batteries continue to have a useful life of only two to three years, requiring New Zealand private vehicle owners to replace their Suzuki Swifts or Toyota Corollas with Nissan Leafs or Teslas would effectively more than double the actual CO<sub>2</sub> emissions generated by many of those vehicle users.

Interestingly the Productivity Commission's Low Emissions Economy report does confirm that the manufacture of lithium ion batteries results in much higher initial CO<sub>2</sub> emissions than building and using fossil-fuelled vehicles; but it contends that as all the batteries are made overseas there is no reason for New Zealand to be concerned as the CO<sub>2</sub> emissions created to power our electric vehicles will just be added to the totals of other countries. As it is the whole world being equally affected by the CO<sub>2</sub> emissions surely that approach is both immoral and impractical

Many of our members are technically able and therefore take a keen interest in technological developments. At this point electric vehicle manufacturing technology development still has much progress to make before batteries of adequate capacity for longer distances are produced which will result in a net benefit in carbon emissions (calculated over the distance driven for the life of the vehicle), when compared with a similar-size, low-emission modern IC engined vehicle. We agree that short distance commuting where public transport is not viable will show a carbon benefit with full electric vehicles, providing the battery is of modest capacity, (currently up to say 100kms range), due to the much lower CO<sub>2</sub> emitted during their manufacture. Further battery developments hopefully will improve this situation in coming years.

**In many instances conversion to electric vehicles will have the effect of increasing CO<sub>2</sub> emissions.**

At this point the obvious impracticalities of replacing the nearly four million internal combustion vehicles in the New Zealand fleet with electric-powered alternatives by 2050 would appear to be insurmountable. With less than 9000 electric vehicles on the road to date and new or used fossil-fuelled imports being introduced to our fleet at around 300,000 a year it would take a much greater economic upheaval than has, so far, even been outlined in the discussion documents to achieve anywhere near the net zero carbon target by 2050.

Even with the introduction of modern energy-efficient appliances, wider use of domestic solar power, and better home insulation, the effect on local lines networks of the large additional load of just a few hundred thousand EVs simultaneously recharging overnight will be massive, not to mention the electricity demand on the generation capacity and the national grid. While the introduction of substantial numbers of EVs will take some time and therefore give generation and lines network planners some space to react, the major increase in load must increase costs to consumers. Already Powerco has in the last year or so put an additional charge on consumers to beef up resilience, so a considerable increase in roadside charging infrastructure, nationwide generation capacity and local lines network infrastructure must also have knock on economic effects.

Enthusiast-owned collector vehicles of any age generally travel much lower annual mileages than the rest of the New Zealand vehicle fleet and make only minimal contributions to total CO2 emissions. The percentage of the New Zealand fleet aged between 30 and 40 years is less than 2%. With a few exceptions, only car buffs continue to drive and maintain vehicles more than 30 years old, and the distances travelled annually are generally small. A survey of our members showed 90 per cent drove their collector vehicles less than 3000kms per year. And a high proportion of the 30-40 years fleet are covered by classic vehicle insurance which restricts the owners to no more than 5000kms a year.

**As the total environmental impact of continuing to use our heritage vehicles would be so slight and the economic impact of some of the changes proposed in the draft report so limiting we submit that they should be exempted from any legislative and regulatory changes which could restrict their ongoing use on New Zealand roads.**

Thank you for considering our submission.

Kindest regards

A handwritten signature in black ink, appearing to read 'RH', with a long horizontal flourish extending to the right.

Roy Hughes  
Submissions Secretary  
NZFOMC  
Tel 03 332 7500

***Representing the responsible special interest and heritage motoring enthusiast***