



TRANSPOWER

Keeping the energy flowing

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Moving the light vehicle fleet to low-emissions: discussion paper on a Clean Car Standard and Clean Car Discount

We welcome the opportunity to provide feedback on the Ministry of Transport's (MOT) discussion paper on the proposed Clean Car Standard and Clean Car Discount aimed at moving the light vehicle fleet to low-emissions (the Discussion Paper).

The Discussion Paper outlines two policies. The first is the Clean Car Standard (which is a vehicle fuel efficiency standard). This would require vehicle importers to bring in progressively more fuel efficient and electric vehicles. The second policy is the Clean Car Discount (which is a feebate scheme). This would make fuel efficient and electric vehicles more affordable for Kiwis to buy, potentially by a discount of up to \$8,000 for new vehicles and \$2,600 on used vehicles. MOT has stated the Clean Car Standard and Clean Car Discount would help New Zealand to significantly reduce the emissions from transport and result in fuel savings for motorists.

Our submission first outlines our view of the transition ahead to a net zero carbon economy and then discusses two key matters in relation to the Discussion Paper – our overall support for moving the light vehicle fleet to low-emissions; and how it is critical that charging infrastructure is fit-for-purpose and in place in time to ensure sustainable success.

Energy sector's role in supporting the transition

The Ministry for the Environment (MfE) has previously stated the energy sector “will play a huge role in the transition”¹ with such a role including the decarbonisation of the economy supported by renewable electrification. As the owner of the National Grid infrastructure and the operator of the electricity system in real time, our 2018 publication, [Te Mauri Hiko – Energy Futures](#), highlighted opportunities and challenges of decarbonising the energy sector and started the conversation towards enabling a sustainable energy future for New Zealand. The publication outlined that electrification of the transport and process heat sectors, coupled with additional

¹ Page 52 of MfE's discussion document “Our Climate Your Say”.

renewable energy generation to meet this increased demand, presents a prudent, low-cost opportunity to decarbonise New Zealand's energy sector.

Increasingly there has been agreement around the trajectory of the future envisaged in Te Mauri Hiko. We have added to this conversation with our later publications [The Sun Rises on a Solar Energy Future](#) and Taking the Climate Heat out of Process Heat. These publications focus on the role of solar, and electrification of process heat, in supporting the transition to a low-carbon energy future.

We support the Zero Carbon Bill to drive New Zealand's global commitment under the Paris Agreement and to provide certainty for investment towards a low emissions electricity system.

The energy transformation New Zealand needs will be possible through an investment environment that is sufficiently attractive for utility investors and for consumer-led investment by households and businesses. An electrification transformation will require government and industry leadership including to drive new opportunities for employment and training.

We consider the Zero Carbon Bill, when passed, will accelerate the transition to a lower-carbon electricity economy. Transpower is well-placed to support that transition. Changes to levels of renewable generation and potential electrification of transportation and process heat will bring about challenges for when, where, and what demand or generation will arise. We are working with industry and Government to consider how best to ensure we have sufficient transmission capacity available where and when it is needed.

We support the purpose of the policies to moving the light vehicle fleet to low-emissions

As outlined in Te Mauri Hiko, we see the electrification of the transport – particularly the light vehicle fleet – as a critical step in enabling the decarbonisation of the economy to meet New Zealand's Paris Agreement. A carbon price alone is unlikely to drive decarbonisation of the New Zealand economy in time to meet New Zealand's international commitments under the Paris Agreement. We support the introduction of policies, and associated levers and incentives, to drive timely emission reductions in the light vehicle fleet. This will catalyse decarbonisation of the transport fleet.

We consider the introduction of policies to support the decarbonisation of the light vehicle fleet not only provides incentive to accelerate the electrification of the transportation sector but creates certainty for investment. This includes investment in new renewable generation to meet the increasing electricity demand and investment in the electricity infrastructure required to enable that generation and increasing electrification load.

The need for new generation to meet increasing demand will also require new connections into the grid. With these connections over the coming decades our grid could run into constraints, and we will potentially need to develop new interconnection to unlock capacity for new load and new renewables. We are currently working to understand how Transpower and its key stakeholders can work together to enable the new connections required to meet the significant decarbonisation challenge we face.

It is critical charging infrastructure is fit-for-purpose and in place in time to ensure sustainable success

To ensure the success of growing electrification of the light vehicle fleet, the charging infrastructure also needs to grow. It is important:

- Mechanisms are in place to smooth a potential increase in peak demand that could be generated by electric vehicle charging, to avoid imposing additional costs on all electricity consumers:
 - Technical standards should be implemented at the same time as (or earlier than) the policies set out in the Discussion Paper to ensure the proliferation of charging infrastructure in New Zealand enables smart charging using technology compatible with the distribution and transmission systems
 - Smart charging should be coupled with time-of-use charging to reduce both peak demand and costs for electric vehicle (EV) consumers. A recent study² by Western Power Distribution (WPD) in the United Kingdom found the most popular time for consumers to plug in EVs is during 5pm to 7pm. This coincides with New Zealand's peak demand. If a significant uptake of EVs occurs in New Zealand, and charging occurs between 5pm and 7pm, it could impose significant costs on the electricity system and all electricity consumers. The study by WPD also found that the combination of smart charging and time of use tariffs was able to move demand away from peak hours and provide the lowest cost EV charging option for consumers
 - New Zealand can learn from the United Kingdom, where proposed regulations would require all electric vehicle chargepoints sold or installed in the United Kingdom have smart charging functionality included³.
- Public charging infrastructure is in place to promote the uptake of EVs:
 - MfE has found both charging time and lack of availability of public chargers are barriers to EV uptake⁴.
 - Ultra-fast charging stations throughout New Zealand would provide an opportunity to address both barriers. We expect these would best be placed alongside avenues of major transportation throughput (e.g. State Highway 1), which are generally close to the transmission and distribution systems enabling the necessary connection and draw of electricity.

In addition, it is critical the Resource Management Act (RMA) and associated regulatory framework recognises the drive to decarbonise the economy, and the need for the necessary charging, distribution and transmission infrastructure to be approved and built at pace to meet the increasing demand and need for new connections. This will require regulatory change through the RMA reform which is underway.

² <https://www.westernpower.co.uk/news-and-events/latest-news/electric-nation-findings-call-for-ev-tariffs-to-save-motorists-money>

³ www.gov.uk/government/consultations/electric-vehicle-smart-charging

⁴ www.iccc.mfe.govt.nz/assets/PDF_Library/ad42c96b5f/MfE-Reducing-Barriers-to-Electric-Vehicle-Uptake.pdf

Transpower New Zealand

Finally, Transpower New Zealand is committed to playing our part to tackle climate change and help New Zealand transition to a low emissions economy.

We are part of the Climate Leaders Coalition in New Zealand – standing publicly with many other businesses to declare and report on our mission to reduce emissions in New Zealand. We are actively seeking to reduce our own greenhouse gas emissions across all areas of our own emissions inventory, and we are working hard to ensure we enable the transition to a low emissions electricity future.

We consider policies and the necessary supporting regulatory frameworks driving decarbonisation of the light vehicle fleet to be vital to support New Zealand's achievement of its 2050 emission reduction target and its commitment to the international community.

Yours sincerely,



Richard Hobbs
GM Strategy