

NZ can significantly reduce our emissions over the next few years in two areas. The first is by making our power system 100% renewable within the next decade. The second is to make the majority of our commuting 100% renewable over the next decade. Both are achievable with current and projected technology and pricing. Therefore, the emphasis should be on significantly reducing our emissions over the next few years, rather than the next few decades.

NZ needs to greatly reduce our farming emissions, but we do not currently have the technology to do it. The best thing for now is to invest more in R&D specifically targeted towards dairy methane reduction.

New forestry should not be used as such a large medium to long-term crutch. Relying on forestry to make a net reduction will stall action on reducing our gross emissions.

Yearly milestones need to be established and met. It is easy to say 'Net Zero By 2050' without accepting that an annual emissions reduction of at least 3% is therefore implied. i.e. unless we have reduced net emissions by 5% at the next election we are already failing to do what is necessary.

Solar PV, wind and battery storage can supply all the power required for NZ power production to be 100% in a few years rather than decades. There is no need to keep fossil fuel generation plants if our generation is operated synergistically. Purchase price subsidies are not needed for Solar PV but a proper export power price is required. This should be the spot price plus the Transpower network charge plus (most of) the local network charge. Distributed Solar PV reduces the strain and requirements of the network and should be compensated for it.

There should be no more new fossil fuel exploration and extraction, even for existing permits. These unused permits should be purchased back by the Government. The jobs lost in those affected industries can be moved to the renewable energy sector which will need to employ far more people.

Electrification of the vehicle fleet will happen by 2050 regardless of any government action to promote it. The trajectory of EV battery range and pricing will make EVs the preferred choice by 2025. Even with incentives, the private EV fleet will be small when this price parity point is reached. If purchase incentives are made for private EVs then they must only apply to brand new vehicles and should be a feebate funded from all imported fossil fuel vehicles. There should also be maximum emission levels implemented.

Electric passenger services can reduce our transport emissions far more quickly than private vehicles due to driving 10-20X the distance of a private car. Refer to www.ohpec.com/plans. The primary focus should be on quickly installing ultrafast public charging and lots of it.

Autonomous high occupancy passenger services will take over commuter transport in the next decade or so. This makes efforts to increase the private EV fleet far less important than creating an autonomous EV passenger service fleet. Refer to <https://cleantechnica.com/2018/05/06/tony-seba-charts-out-the-disruptive-path-forward-to-evs-and-out-of-the-i-c-e-age/>.

Regards
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