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Net Zero

The term 'Net Zero Emission' has been getting a lot of coverage in recent times and it is a term that will undoubtedly gain even more air play as we move to the next federal election, whenever that might be. But what exactly does the phrase mean and what effect will it have on the road freight industry in Australia?

'Net Zero Emissions' refers to achieving an overall balance between greenhouse gas emissions produced and greenhouse gas emissions taken out of the atmosphere. If you think of it like a set of balance scales, on one side you have all the greenhouse gas producing sources, including: burning fossil fuels such as coal, oil and gas in power generation, transport, etc, cement production, methane generated from animals and landfill, and many, many more. On the other side of the scales there are processes that remove greenhouse gas emissions from the atmosphere, these include: forests, plants, crops, etc. At the moment those scales globally and in Australia, are very much weighted to greenhouse gas production and scientists tell us, that we need to get those scales back into balance. Importantly, moving to Net Zero means we can still produce some emissions, as long as they are offset by means that reduce, or remove, excess greenhouse gases already in the atmosphere.

Five countries have a Net Zero target in place by law: Sweden, the United Kingdom, France, Denmark and New Zealand. And there are already two countries that have achieved 'Net Zero Emissions', they are Suriname, in South America and Bhutan, in Asia. In fact, both these countries are carbon negative, on a yearly basis they actually remove more greenhouse gases from the atmosphere than they generate, and both countries still have cars and trucks, though a high percentage of the former are electric.

Much closer to home, there is a little island that you may have heard of, that has reached Net Zero in at least two individual years. In 2014 and 2018, Tasmania's emissions dropped below Net Zero. Tasmania was able to achieve this because it has huge hydroelectric dams, and they are blessed with massive carbon 'eating' forests. With the state's electricity supply already nearing 100% renewable, the remaining emissions from the state, across transport, manufacturing, agriculture, etc, were offset by the greenhouse gases sucked out of the atmosphere by their forests. Though the numbers are not yet in for 2020, it is highly likely that the Apple Isle will have again reach carbon neutrality, due to positive impacts that COVID-19 had on the state's road and aviation transport emissions. Whilst Tasmania has

work to do to make Net Zero a permanent occurrence, it is well placed to achieve this and could move beyond Net Zero to provide an overall benefit to the world. To do this, Tasmania will likely need to reduce its fossil fuel consumption in the transport sector.

Mainland Australia faces a much bigger challenge, whilst Federal and State government's push on with plans to de-carbon our electrical power industry, standards for commercial and domestic buildings are significantly improving the energy efficiency in that sector and continuing advances in farming are reducing emissions from agriculture, is quickly leaving transport as the elephant in the room. Road, rail and air transport, is fast becoming Australia's largest greenhouse emitter and there is little, or no, action from government to address emissions in this sector. The problem is significantly compounded by the age of our vehicle fleet. The average age of the Australian truck fleet is 15 years and given our slow heavy vehicle retirement rate each year, it will take $2 \times 15 = 30$ years for new trucks to completely replace those in the fleet today. If 100 percent of new trucks sold today were Zero Emission, it would take 30 years from now for road freight to reach no emissions, that is 2051, a year longer than the 2050 target date being suggested by many currently. A sobering thought. About the only zero in the equation at the moment, is the number of Zero Emission trucks being purchased in Australia.....

Of course, we do not need to completely eliminate fossil fuels from transport to achieve Net Zero emissions, Suriname, Bhutan and Tasmania have shown that is not completely necessary, however we do need to significantly reduce the sector's reliance on these greenhouse gas emitting energy sources. It is not too late to take action, however Australian government's need to develop an all-encompassing Net Zero greenhouse gas strategy, one that outlines an effective structural adjustment package for the transport sector, backed by ongoing financial incentives and deployment of that strategy needs to start soon, very soon.

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