



Prime Mover Magazine – TIC Article for November 2021 Issue.

## **Death, Taxes and Low Emission Vehicles**

In 1789, America's founding father, Benjamin Franklin, wrote what was probably his last great quote, saying “..... in this world, nothing is certain except death and taxes”. If I may be so bold as to suggest, that in 2021, Franklin's famous quote could be expanded to, “..... in this world, nothing is certain except death, taxes and low emission vehicles”. Irrespective of your political affiliations, the global implementation of low and zero emission vehicles is no longer a question of “if”, but “when”. These vehicles will be deployed on mass and Australia will be very much part of that roll-out.

In a number of my Prime Mover columns this year, I have discussed some of the challenges that the world and specifically Australia will face adopting these low carbon vehicle technologies. While there will be some speed bumps that slow the implementation in some instances, the overwhelming groundswell of movement is towards a low, or zero, emission future in the road transport industry, as it is in most other industries and sectors. I have highlighted that the Truck Industry Council (TIC) and our members, the truck manufacturers and importers, remain agnostic regarding the types of technologies that will be developed and deployed to provide a sustainable low, or nett zero emission, road transport future. Due to Australia's expansive and diverse road transport needs, it is unrealistic to think that we can move completely, nor necessarily quickly, to a low carbon future in our industry. It is also not feasible to believe that there will be one single technology that can be deployed to replace diesel powered trucks, rather a mix of technological measures will be required. These include, but are not limited to, carbon neutral bio and synthetic fuels, hybrid drivelines, battery and hydrogen electric vehicles and carbon offsetting.

Probably the next obvious question to ask is; Where do we start this new journey? To answer this, I will refer to a three week, thirteen truck, trial and study recently conducted by the North American Council for Freight Efficiency (NACFE) and non-profit, clean energy research organisation RMI. The truck trial was the latest incarnation of the NACFE Run on Less program and was the first ever “all electric” version, dubbed Run on Less - Electric (RoL-E). The aim of the trial was to highlight the best possible current use of electric freight vehicles in the USA and Canada and to show what the most innovative fleets can accomplish in the real world, delivering real freight to real customers, in terms of fuel economy, freight efficiency and reducing greenhouse gas emissions. A further goal was to showcase the benefits as well as highlight and discuss the challenges of electric trucks. Mike Roeth,

Executive Director of NACFE said “The interest in electric vehicles is spreading across North America as more companies recognise the value of zero-emission solutions.”

RoL-E, 2021, focused on currently viable electric freight trucks and tasks in North America and chose four quite specific road freight sectors. Two of which would have current applicability in Australia. These being, three light duty trucks in the 4,500kg to 8,900kg GVM range, completing metro distribution freight pickup and delivery tasks for trial participants including DHL. While in the 9,000kg to 12,000kg GVM segment, three medium duty 4x2 cab bodied trucks were successfully deployed in heavier urban freight distribution tasks. The third sector, that has more limited relevance in Australia, were two prime movers used for wharf to distribution centre container haulage. I say this would have less relevance here, because many Australian operators use B-Doubles for this task, while in the US only semi-trailers are allowed. The fourth application trialled in RoL-E, 2021, would struggle in Australia due to the questionable ability of an electric prime mover to tow a B-Double combination in regional haul applications. It may have worked for the four semis in the USA trials, however our high GCM requirements would limit range to distances too short to be practical.

One of the contributing factors that makes electric truck metro distribution and short haul prime mover tasks a commercially viable proposition in America, is the various and significant, State based financial incentives on offer there. This is not the case here in Australia, with incentives, at best, limited to reductions in stamp duty and registration fees. These meagre cost offsets do little to persuade operators to roll the dice and become early adopters of such new technology. Australian governments, at all levels, could and should, be doing more to attract operators to a low and zero emission future.

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