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Initial Submission on the National Hydrogen Strategy

The Motor Trades Association of Australia Limited (MTAA) appreciates the opportunity to make a submission to the *National Hydrogen Strategy*. This initial submission provides an overview of MTAA on behalf of members and in particular MTA-NSW, who also provides in an attachment exploratory answers to the *Key Policy Questions* posed in the *Discussion Paper*.

MTAA is a federation of various states and territory motor trades associations and automobile chambers of commerce. MTAA and members represents, and is the national voice of, the 69,365 retail motor trades businesses which employ over 379,365 Australians and contribute around $37.1 billion to the Australian economy equating to about 2.2% of GDP. The vast majority of these businesses are small and family owned and operated enterprises. MTAA member constituents include automotive retail, service, maintenance, repair, dismantling recycling and associated businesses that provide essential services to a growing Australian fleet of vehicles fast approaching 20 million by 2020. Importantly in the context of this submission is fuel retailing members of the Australian Service Station and Convenience Store Association, which is the largest association of fuel retailers under the MTAA umbrella.

A National Strategy for Hydrogen: Given that large countries like China and Russia purportedly have not been meeting their international obligations on CO_2 along with the USA taking a different policy direction, MTAA suggests Australia should perhaps be more circumspect on taking the "lead" on "low and zero emissions energy". Further study is obviously needed into what comparative advantages not just absolute advantages, if any, Australia has and might have in "hydrogen production".

Why Hydrogen? MTAA and Members are of course primarily, but not exclusively, focused on "when hydrogen is used in a fuel cell". Note that hydrogen "burn[ing]", being both "without" and with "very few" CO_2 emissions, is inconsistent. Given that "electricity" "must be used to release" hydrogen, it is vital to take into account the wider debates on renewables versus fossil fuels, electric vehicles (EVs) versus non-EVs, hybrids, etc. When it comes to "costs", be they "prohibitive" or "falling", these are dynamic over time and best driven downwards by market competition and innovation rather than government monopoly and fiat.

Australia's Potential: MTAA respectfully suggests a significant body of work remains to be done before a conclusion can be drawn "for Australia is to establish itself as the hydrogen supplier of choice to Japan and other nations such as South Korea". MTAA supports the working group approach outlined to undertake this additional analysis. In assessing the likelihood of any amount of "direct and indirect jobs", MTAA is of the view that it needs to be understood to what extent (if any) these will shift from more or less productive or valued sectors of the Australian and world economies. MTAA agrees there are certainly opportunities, particularly if transition of existing businesses is properly explored.

Developing a National Hydrogen Strategy: MTAA welcomes emphasis on early and ongoing sector, industry and business engagement in the development of a National Hydrogen Strategy. MTAA is calling for a national strategy for the automotive sector and a National Hydrogen Strategy, along with integration of other plans for electric and other propulsion systems, it is suggested are integral to a long term vision for future mobility and transport systems. MTAA requests that one or more MTAA representatives be included and closely involved in the "domestic 'kickstart' project" that will "scope the potential for building hydrogen refuelling stations in every state and territory" along with the "Working Group" "work stream" #2 of "hydrogen for transport".

MTAA receives specific practical operational and policy input from National Industry Sector Committees (NISC's) that sit underneath the MTAA umbrella.

This includes the Australian Service Station and Convenience Store Association (ASSCSA). Members of this Association are fuel retailers (franchise, company and independent) across the nation. ASSCSA is the largest national fuel retailing representation association and is not encumbered with the often competing interests of oil companies or wholesalers. MTAA, Members and ASSCSA are exploring the inclusion and potential transition of traditional service station / fuel retailing business models as potentially the most effective and efficient (not to mention 'best and fairest') option for hosting hydrogen refueling as well as electric recharging. As is the case with EVs, "electricity systems" in work stream #5 needs to be considered side-by-side with "transport" and therefore MTAA requests to be consulted by, if not represented in, this work stream. The same applies to work stream #6, with the supplementary request that "economic and distributional impacts" be added to the "such as" components.

Principles Underpinning the National Strategy: MTAA welcomes the eight guiding principles, especially the acknowledgments therein of "owned by industry" (in the 4th), "healthy competition" (in the 5th) as well as "commercial focus" and "economically viable" (in the 6th). The current 2nd, 7th and 8th principles, and to a lesser extent 4th, 5th and 6th, are best understood and guided by independent Cost Benefit Analysis (CBA). CBA should be part of work stream #6. MTAA suggests that comparative approach could be included in the current 1st principle and work stream #6, but also to strengthen the other seven principles and five work streams. Such a comparative approach is currently being explored by the US Federal Environment Protection Agency (EPA), as the 'new wave' of World Best Practice for Evidence Based Policy.

Consultation: MTAA would also like to express our interest in face to face meetings with one or more Working Group representatives at the earliest mutual convenience. We also look forward to multiple opportunities and avenues for "input" and "feedback" as the process unfolds as well as commending the incorporation of modern tools like "online survey[s]" and a "Consultation Hub".

Indicative Timeline for 2019: MTAA and Members would again like to stress our desire to be closely involved in the "key milestone" for May 2019 of "refuelling station mapping" and suggest that through ASSCSA can bring to this parcel of work significant practical knowledge and direct input of business owners and operators. We have no objection to this possibly being delayed until shortly after the May federal election, say in late May or early June 2019.

In conclusion, please accept this *Initial Submission on the National Hydrogen Strategy* by MTAA with the attachment by MTA-NSW. For any questions or comments, at first instance contact Mr Darren Nelson. Darren is Director Policy & Industry Relations at MTAA in Canberra, and can be phoned on 0479 001 040 and emailed on DarrenN@mtaa.com.au.

Yours sincerely,

Richard Dudley
CEO, MTAA Ltd

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Key Policy Questions

• What do you think are the two or three most significant recent developments in hydrogen?

CSIRO's membrane technology for bulk hydrogen to be transported in the form of ammonia, using existing infrastructure and then reconverted back to hydrogen at the point of use. (For more information see: https://www.csiro.au/en/News/News-releases/2018/CSIRO-tech-accelerates-hydrogen-vehicle-future)

New hydrogen powered vehicles mass produced by Toyota, Hyundai, Honda and many other car companies are now investing and developing fuel cell technology for vehicles and various other types of transportation such as buses and trains. In Japan's Strategy this rests on the firm belief that hydrogen can be a decisive response to its energy and climate challenges. It could foster deep decarbonisation of the transport, power, industry and residential sectors while strengthening energy security. As such, it is a holistic, multi-sector strategy aimed to establish an integrated hydrogen economy.

The Strategy encompasses the entire supply chain from production to downstream market applications. Success will primarily depend on the cost competitiveness and availability of carbon-free hydrogen fuel. Japan's state-backed approach is ambitious, as it involves domestic and overseas industry and government stakeholders on a number of cross-sectoral pilot projects.

In South Korea, the government has laid out its road-map for hydrogen. It has stated its goals of producing 6.2 million fuel cell electric vehicles and also building 1,200 refilling stations across the country by 2040, thus securing energy independence and assuming a leadership role in hydrogen technology worldwide.

Toyota Australia, for example, has started development of Victoria's first integrated hydrogen site, complete with electrolyser, commercial grade hydrogen refuelling station and an education centre to help create awareness of the benefits of hydrogen. (For more information see: https://www.toyota.com.au/news/toyotas-altona-site-to-be-home-to-victorias-first-hydrogen-refuelling-station) Australian Renewable Energy Agency (ARENA), has also contributed $3.1m towards this project.

• What are the most important safety issues to consider in producing, handling and using hydrogen in Australia?

Establish a reliable safety management system throughout the entire period from production to storage, transportation and utilization to ensure public trust.

Ensuring future hydrogen industries are conforming to international safety standards on proper handling, storage requirements, refuelling of vehicles.

Industry training for automotive technicians for both dealerships as well as independent mechanical workshops and collision repairer workshops on how to service and repair. The Motor Traders' Association of New South Wales (MTA NSW) has been operating as a Registered Training Organisation (RTO), delivering training flexibly across NSW since 1996. MTA NSW has developed a strong and successful training model which has delivered many benefits to employers and is more than capable to assist with industry training requirements.

Standards Australia should involve industry stakeholders and discuss what the priority areas are to ensure the appropriate standards are adopted in Australia. (For more information see: https://www.standards.org.au/getmedia/2d89a05c-9dd0-4878-90f8-d1c228306d5b/D-1368-Hydrogen-discussion-paper.pdf.aspx)

• What environmental and community impacts should we examine?

Consideration to adopt similar controls in place for leakage and detection as well as storage currently used in the Petroleum industry such as UPSS adopted by Service Stations. There may be areas which require further consultation and coordination at a future time

• How can Australia influence and accelerate the development of a global market for hydrogen?

With industry and community engagement will be important factors to successfully develop new hydrogen technologies and related infrastructure projects. It needs to be open and transparent decision-making, responding to concerns, ensuring benefits are understood. The recently announced Future Fuels Cooperative Research Centre specifically address how best to engage with the community to support informed decision-making is a great start to starting the development of an Australian Hydrogen industry.
See: https://www.futurefuelscrc.com/

• What are the top two or three factors required for a successful hydrogen export industry?

In order to be a leader in hydrogen production technologies, one must have sufficient scale of infrastructure in order to meet the global demands as alternative energy resources increase. Collaboration across our region to firm up the potential demand to provide investors and policy-makers confidence to plan ahead and investment accordingly for both domestic and export.

Education is also key to having hydrogen be accepted and by increasing awareness of the benefits of using hydrogen as a future clean alternative for mobility, public transport and other energy requirements.

• What are the top two or three opportunities for the use of clean hydrogen in Australia?

As road transport is responsible for about 15% of carbon emissions and the transition from fossil fuels to a cleaner alternative such as Hydrogen will play a significant part in reducing carbon emissions with the introduction of FCEV's in passenger cars, SUV's, buses when sufficient infrastructure is established.

With further R&D the automotive industry could convert existing internal combustion engines into Hydrogen powered as an alternative to fossil fuels.

• What are the main barriers to the use of hydrogen in Australia?

No infrastructure currently to support mass production of hydrogen powered mobility and refuelling infrastructure which will be the key to widespread adoption of hydrogen vehicles. There also needs to be consultation with all industry stakeholders to help develop and set out a plan for the refuelling infrastructure that could consider making use of existing refuelling independent & national networks service stations. These service stations could also possibly support electric charging too.

The high upfront costs involved in introducing it, along with the low financial returns in the short term. The lack of investment and funding in R&D to support the growth of this future industry. Toyota & Hyundai are the main drivers along currently but can't do this alone.

• What are some examples where a strategic national approach could lower costs and shorten timelines for developing a clean hydrogen industry?

In order to adopt a successful national approach government will need to work will all stakeholders in industry to ensure a successful road map is developed. Part of this is to have clear standards in the entire supply chain

• What are Australia's key technology, regulatory and business strengths and weaknesses in the development of a clean hydrogen industry?

The hydrogen sector in Australia is gaining momentum. The potential role of hydrogen across Australian industries to decarbonise, improve fuel security, and create new investment opportunities is being recognised.

However, this shift requires a coordinated and strategic response from business and government.

The current weakness is in very limited support from the Government for a sector that can be a global leader with the establishment of hydrogen manufacturing, export and technology development.

There needs to be a national plan developed for refuelling infrastructure that will encourage business, governments, industry associations to work together to ensure a smooth rollout.

Existing vehicle regulations around safety and performance standards focus on vehicles with internal combustion engines and regulations will need to accommodate hydrogen vehicles.

• What workforce skills will need to be developed to support a growing clean hydrogen industry?

The Motor Traders' Association of New South Wales (MTA NSW) has been operating as a Registered Training Organisation (RTO), delivering training flexibly across NSW since 1996. MTA NSW has developed a strong and successful training model which has delivered many benefits to employers and is more than capable to assist with industry training requirements.

Growth in the hydrogen sector may lead to vast new employment opportunities, and these will be created in a wide variety of industries.

However, many of these jobs do not currently exist and do not have occupational titles as defined in official classifications.

In addition, many of these jobs require different skills and education than current jobs, and training requirements must be assessed so that this rapidly growing part of the economy has a sufficient supply of trained and qualified workers.

Areas in training that should be considered is transportation, correct handing process, storage, motor vehicle technician training, emergency services training and servicing of hydrogen vehicle re-fuelling equipment

• What areas in hydrogen research, development and deployment need attention in Australia? Where are the gaps in our knowledge?

The areas of attention needed are in the development of equipment to achieve mass production of hydrogen.

The end-to-end processes should be considered with the view of gaining efficiencies and cost reductions in production.

If Australia is adopt Hydrogen for domestic use and grow an export market internationally as a commodity like Natural Gas, supply chains will need to be demonstrated and then established.