atse.org.au

Submission to the Department of Industry, Science, Energy and Resources

Future Fuels Strategy: Discussion Paper

2 April 2021

ATSE
Australian Academy of Technology & Engineering

GPO Box 4055
Melbourne, 3001
VIC, Australia
T + 61 3 9864 0900
F + 61 3 9864 0930
E info@atse.org.au

FUTURE FUELS STRATEGY: DISCUSSION PAPER

The Australian Academy of Technology and Engineering (ATSE)[1] is pleased to contribute to the Department of Industry, Science, Energy and Resources' consultation to shape Australia's Future Fuels Strategy and government programs investing in future fuels technologies.

ATSE's vision is for clean, affordable and reliable future fuels to power Australia to support us to reach net zero emissions by no later than 2050, at acceptable cost and reliability.[2]

The Strategy sets out a positive approach to adopting low-emissions transport technologies at scale, and provides good oversight of the barriers to widespread adoption of new transport technologies. However, given transport's growing contribution to Australia's carbon emissions, ATSE encourages a more ambitious approach to decarbonising the private transport sector.

ATSE's 2019 report on technology readiness in Australia's transport industry, *Shifting Gears – Preparing for a Transport Revolution*,[3] examined the readiness of the transport sector to develop, adapt and adopt new and emerging technologies to reduce emissions, move people and freight efficiently, and reduce deaths and serious injuries. ATSE consulted widely with experts from industry, government and research from across Australia to produce key recommendations including driving a widespread shift towards low emission transport options, and adapting transport technologies to an Australian setting.

Although the scope of the Future Fuels Strategy is limited to private sector road transport, we are pleased that some of the key recommendations from ATSE's 2019 report have been captured, including:

- A commitment to the rollout of charging and hydrogen refuelling infrastructure to support low and zero emission vehicle (LEV) adoption, including LEV freight vehicles
- Research into the integration of electric vehicle infrastructure with the electricity grid
- Support for businesses to incorporate new vehicle technology into their fleets through the Future Fuels Program
- Engagement of businesses in the development of commercial fleet charging infrastructure, and recognition that continued engagement with industry more broadly is required
- A commitment to drive research, development and manufacturing of innovative Australian transport technologies.

ATSE is also pleased that the Strategy is underpinned by investments through the Australian Renewable Energy Agency (ARENA), the Clean Energy Finance Corporation (CEFC), in addition to the Future Fuels Package and Freight Energy Productivity Program. ATSE welcomes the Strategy's focus on addressing national 'charging blackspots' and, through ARENA, the funding of major charging infrastructure projects powered by renewable energy. However, there is room for the Strategy to further clarify how renewable energy will be integrated with the national rollout of charging infrastructure and potential implications for the electricity grid.

---

[1] The Australian Academy of Technology and Engineering is a Learned Academy of independent, non-political experts helping Australians understand and use technology to solve complex problems. Bringing together Australia's leading thinkers in applied science, technology and engineering, ATSE provides impartial, practical and evidence-based advice on how to achieve sustainable solutions and advance prosperity.

[2] https://www.atse.org.au/research-and-policy/publications/publication/technology-investment-roadmap-discussion-paper/

[3] https://www.atse.org.au/research-and-policy/publications/publication/transport-industry-technology-readiness/

The Strategy has a strong focus on the adoption of low emissions technologies by industry and the use of procurement mechanisms to drive rapid and widespread update. The use of the Future Fuels Fund to encourage targeted business investment in LEV fleets is positive, however the Strategy must introduce a national target and regulatory mechanisms such as vehicle emissions standards to drive public confidence in LEVs. This was discussed in detail in ATSE's submission to the Technology Investment Roadmap.[4]

The Strategy could also be strengthened by providing an overview of skills and workforce readiness. ATSE's report found that Australia's skills readiness in the area of low and zero emissions vehicles is low.[5] Development of skills, training and education of the future workforce will be essential to support Australian innovation and manufacturing of new transport technologies.[6]

ATSE would be pleased to provide further information, evidence or assistance to the Department in this inquiry. For more information, please contact Dr Harry Rolf, Senior Policy Analyst (Harry.Rolf@atse.org.au).

[4] https://www.atse.org.au/research-and-policy/publications/publication/technology-investment-roadmap-discussion-paper/

[5] https://www.atse.org.au/research-and-policy/publications/publication/transport-industry-technology-readiness/

[6] https://www.atse.org.au/wp-content/uploads/2020/08/SUB-2020-06-19-ATSE-submission-on-Technology-Investment-Roadmap-1.pdf