

Productivity Commission  
Level 8, Two Melbourne Quarter  
697 Collins Street  
Docklands Vic 3008, Australia

15 Sep 2025

## **RE: Feedback on the Interim report for *Investing in cheaper, cleaner energy and the net zero transformation***

The Maritime Emissions Reduction Coalition (MERC) welcomes the opportunity to give the Productivity Commission feedback on the interim report for *Investing in cheaper, cleaner energy and the net zero transformation* ('the report').

## **About MERC**

In February 2024, Maritime Impulse Pty Ltd founded the Maritime Emissions Reduction Coalition (MERC) as a regional innovation cluster, intended to bring organisations operating in Australia's maritime sector together in order to accelerate the reduction of greenhouse gas emissions in the maritime sector through innovation and collaboration.

Since then, MERC has gathered 35 participating organisations in the MERC Community<sup>1</sup>, participated in several Government consultations around transport decarbonisation, low carbon liquid fuels production and innovation policy, ran the Discover Maritime Futures<sup>2</sup> event in partnership with the Everything Electric Show to promote maritime electrification, and is running the Discover Maritime Innovations conference in October 2025 to help bring Australia's innovation and maritime sector closer together<sup>3</sup>.

## **Feedback**

Given MERC's focus on the maritime sector, our feedback is limited to *Information request 1.1*, which deals with reducing emissions for heavy vehicles.

## **1. Reducing the cost of meeting emissions targets**

### **Information request 1.1**

#### **Advantages and disadvantages of options to reduce emissions for heavy vehicles**

*What are the advantages and disadvantages of these options to reduce emissions from heavy vehicles?*

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<sup>1</sup> <https://www.merc.blue/community>

<sup>2</sup> <https://www.merc.blue/dmf>

<sup>3</sup> <https://www.merc.blue/dmi2025>

- What would be the costs and benefits of each option?
- Would there be any consequences not mentioned in this section?
- What are the key implementation considerations?

Are there options not covered that the PC should consider? What would be their advantages and disadvantages?



MERC would like to firstly point out that other than the reference to “Other” emissions in Table 1.3, there is no reference to maritime transportation in consideration of the measures to reduce emissions for heavy vehicles – despite maritime transportation including some of the largest and most emitting vehicles in use, and many of the proposed options being likely to affect maritime vehicle operators.

Estimates for the amount of GHG emissions from domestic maritime transport are also debatable. MERC’s *Australian Domestic Maritime Emissions Review*, from April 2024, showed that it is likely that the size of domestic maritime emissions has been drastically under-estimated, due to under-reporting from wholesale fuel suppliers and a lack of transparency as to when fuel is used for maritime purposes.

Our analysis shows that Australian domestic maritime GHG emissions from fuel use alone should actually be over 6 Megatons of CO<sub>2</sub>-equivalent gases annually<sup>4</sup>. It could even be higher, up to 7.4 Megatons of CO<sub>2</sub>-equivalent gases annually.

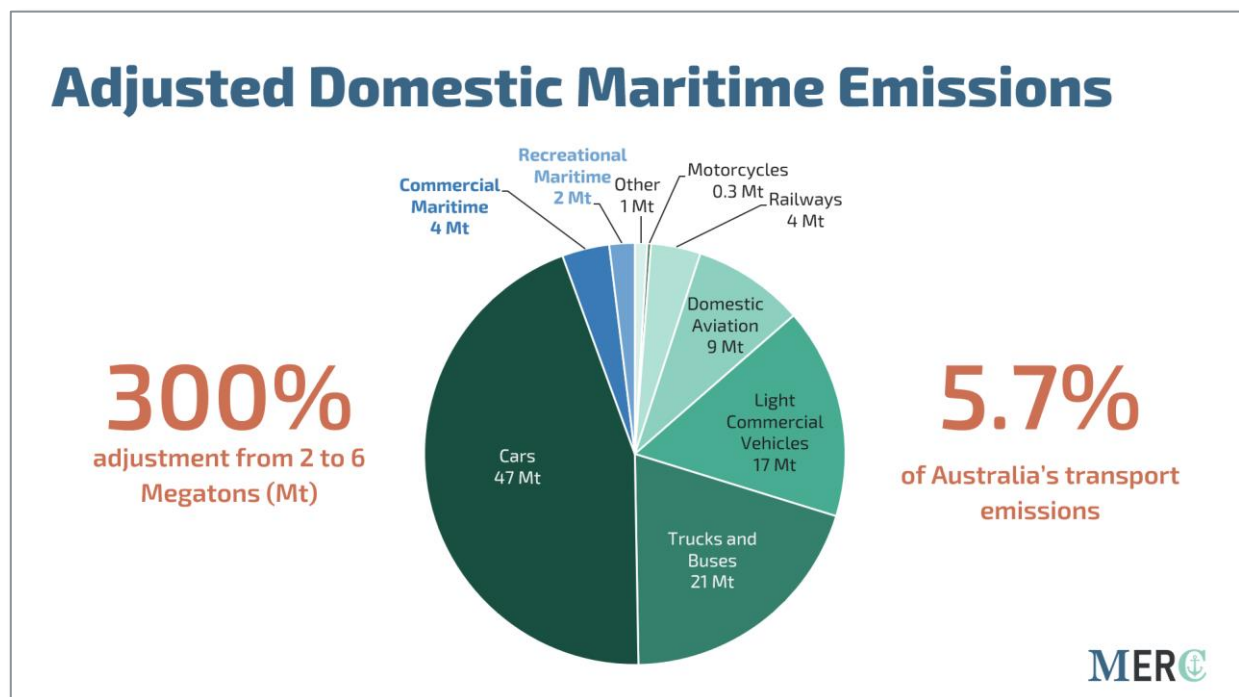


Figure 1: Adjusted Domestic Maritime Emissions

Based on this analysis, we believe that maritime transportation emissions should be more seriously considered when looking at measures that can be taken to reduce heavy vehicle emissions. Heavy users of fuel, such as high-speed ferry services that run every day for up to 12 hours per day, can see those maritime vehicles emitting 20 to 30 times what a heavy road vehicle might emit per year. A

<sup>4</sup> <https://merc.blue/resources/>

relatively small number of large commercial maritime vehicles, usually built in Australia, are responsible for a large amount of the maritime sector's transport emissions, and their operators will be affected by the decisions made to incentivise heavy vehicle emissions reduction.

### *Option 1: Include a carbon component in a future road user charging scheme?*

Road user charges might form a suitable means to replace fuel excise revenue that will be lost as electrification of road transport continues, but it is a poor method of influencing GHG emissions from the heavy vehicle industry. As noted in the report, it will affect renewable diesel just as much as fossil diesel, and it will ignore emissions from maritime, mining, and many agricultural vehicles.

If this was the primary method of trying to influence heavy vehicle emissions, then MERC would expect that it would have minimal impact on the emissions from the maritime sector. Indeed, if it caused a drop in demand for fossil fuels from road transport, then we might expect that fuel prices for maritime operators would decrease, and this would lead to increased use of fossil fuels, undermining even relatively simple efficiency efforts.

MERC recommends against the use of Option 1 to address GHG emissions.

### *Option 2: Apply the Safeguard Mechanism to fuel wholesalers?*

Nearly all fossil fuel used in Australia comes from fuel wholesalers and mostly from the big four (Ampol, Viva Energy, BP Australia and ExxonMobil), so this option has the potential to greatly reduce emissions across the entire transport sector and at the same time capture non-mobile uses of fossil fuels (e.g. in generators, barbecues, etc.).

Applying the Safeguard Mechanism coverage threshold, baselines and costs (ACCUs) to large fuel wholesalers would need to be modelled to see if it will be effective and the impact it might have on fuel prices for end users. There is also the fact that over a quarter of Australia's fuel goes through smaller wholesalers – and so introducing only the largest ones to the Safeguard Mechanism risks simply creating a price break for smaller wholesalers, whose market share would likely increase to close to the point at which they nudge the Safeguard Mechanism coverage threshold. This would not deliver the desired result.

There would also be an incentive for large users of fuel that have access to their own maritime transport infrastructure to import fuels themselves, thus avoiding Australian wholesalers altogether.

In the short-term, this option seems like the one most likely to induce change in the maritime sector, by taxing the relatively small number of wholesalers and thus increasing the cost of fuel for all users, small and large. In the medium term this will probably only encourage the growth of smaller wholesalers.

This is not a technology-neutral policy as it affects the cost of fossil fuels but does not affect the supply of them. As some parts of the transportation sector electrify, there will be an incentive for wholesalers to reduce the price of fossil fuels in order to continue selling their committed volume of fuel. This could have the perverse effect of driving the use of fossil fuels in the remaining parts of the transportation sector – making the commercial reality of decarbonising harder and delaying electrification where it might otherwise make sense.

### *Option 3: Increase the rate of fuel excise paid by users of heavy vehicles?*

This option suggests re-purposing the fuel excise for two things, a road user charge (where volume of fuel used is a proxy for distance travelled) and an emissions charge (where all fuels are treated as having the same average emissions intensity by volume).

As has already been noted, this does not encourage the use of low carbon liquid fuels, as they attract the same excise as any other fuel, nor does it recognise the impact that electric vehicles have on road maintenance costs.

This option would cover the maritime transport sector, but it would also impact recreational boaters more heavily than commercial operators as the commercial operators are familiar with claiming the fuel tax credits, whilst someone filling up their boat would be paying the road user charge component even though their boat does not use roads.

### *Option 4: A targeted policy for low-carbon liquid fuels?*

Beyond emissions reduction, supporting local fuel production also supports Australia's energy independence and ensures we have some sort of sovereign supply capacity in case overseas supplies are cutoff or interrupted.

To that end MERC would support production tax incentives in combination with methods that would encourage the reduction of transportation emissions in technology neutral ways. This would help boost supply, whilst at the same time ensuring there is some measure of demand for low carbon liquid fuels.

### *Option 5: A targeted policy for low-emissions vehicles?*

Australia's policies that have encouraged solar and battery installation are not technology-neutral but remain one of the most successful programs in terms of their impact on renewable energy goals.

However, increasing the share of renewables in the electricity production mix is only part of the energy transition. Electrification, and clean fuels, is another big part of the equation, and efficiency gains are another major way we can reduce energy use. Figure 2 from the Rocky Mountain Institute (RMI) shows the effect each of these three levers has on the energy system.

## There are three big levers of change

Renewables, electrification, and efficiency are rapidly transforming the energy system

Global energy demand in 2022

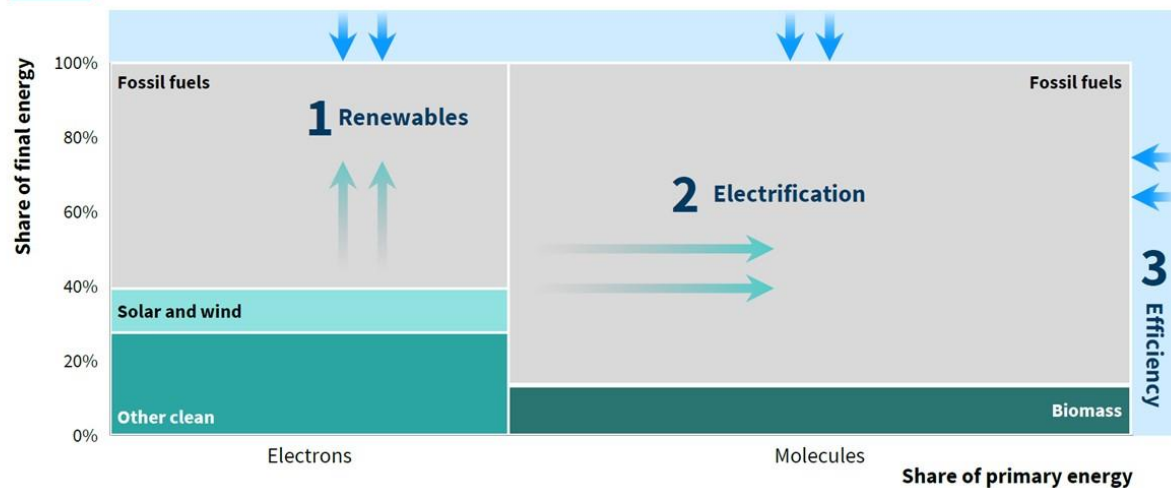


Figure 2: Renewables, Electrification and Efficiency<sup>5</sup>

Option 5 preferences electrification of transport, and as Figure 2 shows, we can expect that electrification has the ability to provide a far greater move away from fossil fuels than simply replacing generators supplying the grid.

The proposal from the Australian Trucking Association of a voucher scheme to split the price gap between electric trucks and conventional fossil fuelled ones has some merit. However, this is prone to being gamed by both vehicle manufacturers and operators to their benefit and will commit the Government to substantial future fiscal cost. Perhaps a fixed grant based on the type of vehicle would be more appropriate and encourage less excessive pricing by manufacturers.

We have also seen that the cost of an electric vehicle is only part of what is needed. In many cases the cost of charging infrastructure is substantial, and that is before considering that some locations simply do not yet have enough electricity supply to meet the needs of fast charging. At the moment ARENA and State Government grants are often used to cover the difference.

Across the maritime sector we have heard that lowering emissions involves significant capital outlay once you have implemented efficiency measures that pay for themselves. Electrification is the only emissions lowering solution that both reduces emissions significantly and lowers operating costs.

Electrification of many maritime operations is already financially feasible; however, three issues are slowing it down:

1. Typically, electrification is only considered for the small number of newbuild vessels, and in those cases, it greatly increases the capital cost,

<sup>5</sup> RMI, *The Cleantech Revolution*, June 2024

2. AMSA's Novel Vessels Policy captures most electrification projects (anything with more than 30kWh of batteries)<sup>6</sup> and acts to slow them down and increase costs, and
3. The capital expense of providing fast charging infrastructure usually renders the projects uneconomical.

Domestic Commercial Vessels (DCVs) are typically assumed to have a 20-year lifespan in their primary use case but can then typically go on to continue being used for another 10 or 20 years in other secondary uses. AMSA's own numbers show that only about 1% of the powered domestic commercial vessel fleet are replaced every year (~240 vessels/year). If retrofitting is ignored, then electrification cannot make a major impact across the current fleet in service. However, many commercial vessels are completely replacing their engines every 4-5 years, an opportunity to consider retrofitting with battery-electric propulsion.

The MERC Community is working with AMSA to address the Novel Vessels Policy, but this is an area where a relatively small investment by the Government in bringing in expertise from consultancies or classification societies could help AMSA modify the National Standard for Commercial Vessels (NSCV) and thus drastically reduce the cost of the transition, especially for smaller vessels that rarely go through classification societies.

Finally, it remains true that the capital cost of building electric vessels and charging infrastructure remains too high. In many cases the charging infrastructure must literally be built at the edge of the grid, and in many cases in regional areas. ARENA has funded very few maritime electrification projects despite supporting many truck and bus depots. A specific grant focus on maritime electrification at Commonwealth and State levels would help ensure that more projects might get off the ground.

### *MERC's Recommended Option*

There is a request to offer options that may not have been considered, and MERC has a recommended option that we believe is best for road using heavy vehicles, offroad heavy vehicles, and maritime vehicles.

**Firstly**, a Road User Charge should be introduced that is based on the distance vehicles travel and the size/type of vehicle. This should cover all road vehicles, both electric and fossil fuelled. As this is a new scheme it may be best to have introduced gradually, and to assess how frequently it should be paid – perhaps as part of BAS reporting for businesses affected, and as part of the vehicle registration process for personal vehicles.

**Secondly**, the Fuel Excise should be only levied to charge for GHG emissions, and have its value assessed based on the LCA of each fuel's GHG emissions. This will make renewable diesel more price competitive with fossil diesel and will also benefit operators that implement electrification. The scheme could ramp up over time to minimise disruption.

**Thirdly**, all Fuel Tax Credits will be eliminated as the Fuel Excise is no longer supposed to be supporting road maintenance and the delivery of new roads. This will save businesses some overhead and allow time to get the Road User Charge reporting done properly. Again, it could be something that is introduced over a few years in line with the others increasing.

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<sup>6</sup> AMSA, *Novel Vessels Policy Statement*, June 2022

**Fourthly**, the Safeguard Mechanism should be modified so as to exclude direct fuel emissions so that large transport operators are not faced with being penalised in the Fuel Excise and again under the Safeguard Mechanism.

**Fifthly**, the Commonwealth should direct ARENA to make grants supporting the electrification of commercial maritime vehicles, including charging infrastructure, and encourage the State Governments to support in similar ways. ARENA could be renamed the Australian Renewable Energy and Electrification Agency, or ARENEA to bring a greater focus to electrification in all its guises.

**Sixthly**, supporting local low carbon liquid fuel production through the provision of production tax credits.

These changes will:

1. Ensure Government continues to receive revenue to cover road maintenance and delivery of new roads.
2. Affect all fuel consumers fairly, based on the climate impact of the amount and type of fuel they consume.
3. Eliminate claims of financial support for fossil fuel use in offroad and maritime engines.
4. Provide Government revenue that can be diverted to supporting grants for new charging infrastructure, cleantech innovations and electrification of existing and newbuild commercial maritime vehicles.
5. Support a range of decarbonisation approaches but primarily favouring electrification.

One remaining point about our recommendation should be made clear. When it comes to domestic commercial vessels (DCVs), Australia is in the enviable position that our local boat and ship builders already make most of these. Indeed, for many types of vessels Australia is an exporter to countries in our region, and the rest of the world. Our marine equipment manufacturers already have significant export businesses, both small and large.

However, the strength of our export industry has been supported by domestic demand for these vessels and this equipment. Whilst we have ship builders like Incat Tasmania making electric high-speed ferries for global customers, the value chain they rely on for electric propulsion, marine batteries, and charging infrastructure is entirely based in Norway<sup>7</sup>. That Norwegian value chain was built on the back of domestic regulatory change, innovation grants, and infrastructure grants that supported vessel operators electrifying their vessels.

The boat and ship building industry together deliver \$4.8 billion in value add to the Australian economy and 28,500 FTE jobs<sup>8</sup>. Encouraging domestic maritime operators to start shifting away from fossil fuels will encourage the take up of low carbon liquid fuels, like renewable diesel, and will start to drive electrification of newbuild and retrofit maritime vessels. This in turn will create opportunities for local boat and ship builders to start building electric vessels for domestic consumption, which in turn will encourage local equipment suppliers to introduce innovative electrification products and services.

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<sup>7</sup> <https://businessnorway.com/articles/norwegian-companies-to-build-worlds-largest-electric-vessel>

<sup>8</sup> AIMS, *AIMS Index of Marine Industry: 2025*, September 2025



Ember Energy have pointed out that electrification technologies are already a larger market than renewable energy technologies, and they are only going to get larger as much of the supply chain has yet to be built (see Figure 3). They also point out that these are higher margin businesses, as “they are closer to the end customer, and, as in many sectors, proximity to the user translates into pricing power.”<sup>9</sup>

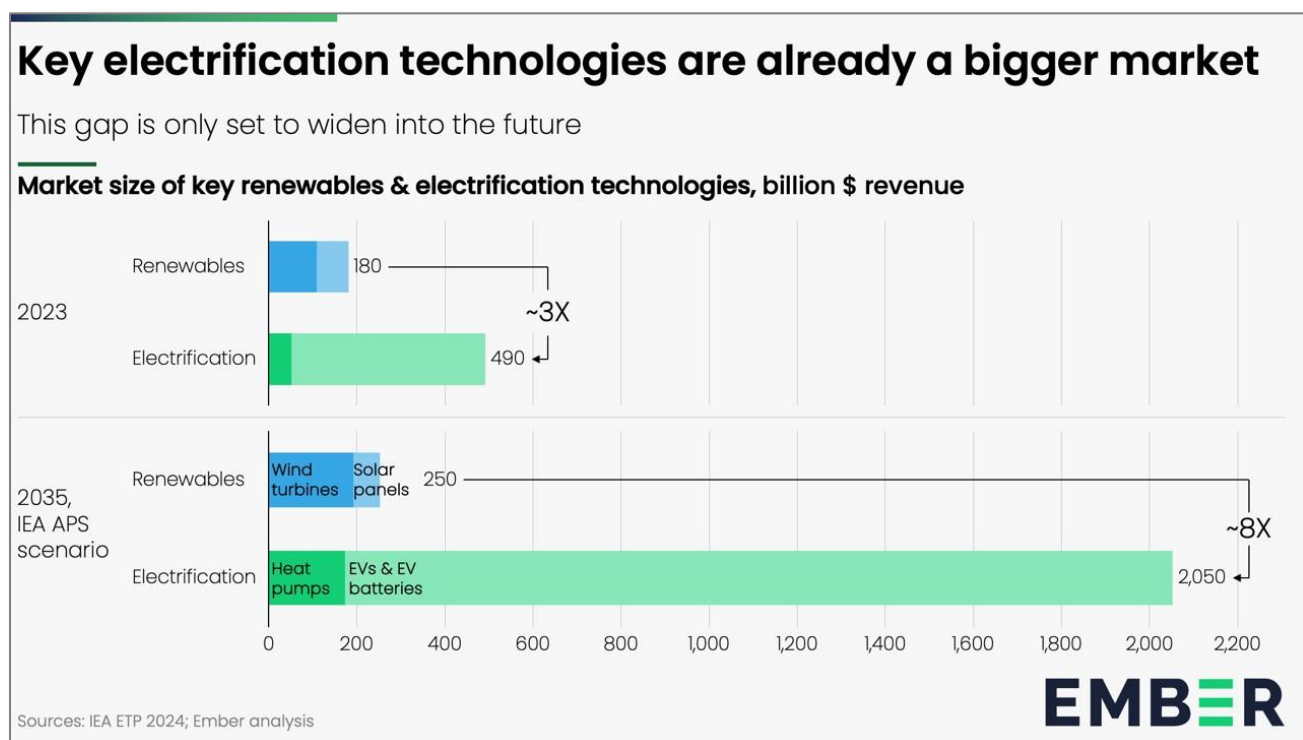


Figure 3: Renewables vs Electrification Technologies<sup>10</sup>

The report’s *Draft recommendation 1.4* includes a suggestion that ACCUs should be integrated into every national emissions-reduction policy. MERC’s recommended option for heavy vehicle emissions reduction does not include the use of ACCUs, preferring instead to rely on direct costs. Because MERC’s recommended option also removes direct fuel emissions from the Safeguard Mechanism to ensure the desired consistency in incentives, we do not think this violates the spirit of *Draft recommendation 1.4*.

## Conclusion

We appreciate the opportunity to give our feedback in this public consultation process. We have focused on the area of maritime transport decarbonisation as that is where we feel we can best advise Government.

By supporting domestic maritime electrification, the Government can help decarbonise a hard to abate sector, support domestic manufacturers, and ensure our marine equipment exporters can become even more relevant in overseas markets. This is truer for maritime than for other forms of transport, but much of the infrastructure needed for all forms of transport electrification can be built in Australia.

<sup>9</sup> <https://ember-energy.org/latest-insights/the-electrification-imperative/>

<sup>10</sup> Ibid.



Heavy vehicle emissions reduction can be encouraged in a way that ensures fair and equitable results for fuel consumers in mining, agriculture and heavy transport. It can also support those use cases where low carbon liquid fuels like renewable diesel may be the only effective option. We hope our contribution to the discussion is found to be a valuable one and look forward to seeing the final result.

Kind regards,



**Angus McDonald**

CEO & Co-founder, Maritime Impulse Pty Ltd, Chair of MERC Steering Committee