Institute of Transportation Engineers



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29 May 2023

Dear Ministers

FUEL EFFICIENCY STANDARD

We make this submission in response to the *Fuel Efficiency Standard - Cleaner, Cheaper to Run Cars for Australia* consultation paper dated 19 April 2023.

The Institute of Transportation Engineers - Australia and New Zealand Section (ITE-ANZ) is part of an international organisation representing a community of transport professionals including transport engineers, transport planners, urban planners, consultants, educators and researchers. Globally, the ITE works to improve mobility and safety for all transport system users and helps build smart and liveable communities. Founded in 1930, the ITE community has over 17,000 members working in more than 75 countries. Within Australia and New Zealand, ITE-ANZ activities cover all transport modes, transport advocacy and professional development.

The ITE-ANZ welcomes this work towards a national Fuel Efficiency Standard and the government's policy commitments to encourage the transition to cleaner and cheaper vehicles.

Policy Position

ITE-ANZ firmly supports the adoption of a mandatory Fuel Efficiency Standard to control vehicle emissions in Australia. This reform is long overdue and should be implemented with the greatest urgency. The standard should be ambitious and should be progressively tightened over time to align with those adopted by comparable countries around the world.

Public Policy Implementation

Our membership includes many people with considerable experience in public policy. Our strong recommendation is that the implementation of the FES scheme should avoid getting bogged down in the detailed elements of the scheme. After this round of consultation is finished, the government should adopt the recommendations of public policy experts and implement the scheme as soon as possible. It will not be in the best interests of the nation (and the planet) to delay implementation for the sake of achieving the most perfect design of the scheme.

Responses to Questions

Guiding Principles

• Are these the right guiding principles? Are there other principles that you think we should keep in mind?

The most important guiding principle is that the FES be effective, keeping in mind that the objective is to reduce pollutants and total energy consumption, as well as CO_2 emissions from light vehicles.

Design Assumptions

• Are there any design assumptions that you think will put at risk the implementation of a good FES for Australia?

No.

• Are the exclusions for military, law enforcement, emergency services, agricultural equipment and motorcycles the right ones?

There is no reason to provide a blanket exclusion for vehicles used in the military, law enforcement, emergency services or agriculture if the vehicles fit the definition of a light vehicle. However, there could be a process to provide exemptions for a particular category of vehicles upon application.

Excluding motorcycles is reasonable at this time, but other measures should be introduced within the next year to encourage the supply and sale of electric motorcycles instead of ICE motorcycles.

FES design features

• Are there any particular FES features that you think we need to take particular care with?

There should NOT be any "super credits" or multipliers for ZLEVs.

Limit curves should NOT be applied.

Starting emissions level limit and approach

• What principles should we consider when setting the targets?

The targets should ramp down to zero emissions for new light vehicles by 2035. This gives 15 years for the remaining light vehicles to be replaced so that zero emissions from the whole fleet of light vehicles can be achieved by 2050.

• What should Australia's CO₂ FES targets be?

Our recommended targets are shown in the graph below. Note that we have combined MA and MC classes into one target level.

The target values in the graph below may need to be adjusted if the assumed average emission levels in 2020, 2021 and 2022 are not accurate.

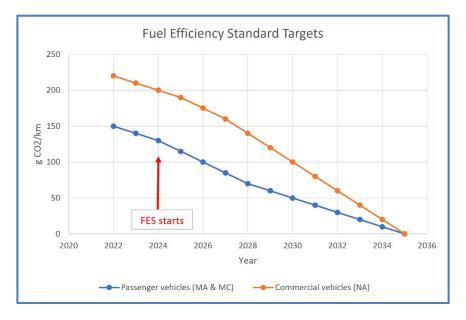
• How quickly should emissions reduce over what timeframe?

The targets should aim for zero emissions for new light vehicles by 2035. See graph below.

• Should the Australian FES start slow with a strong finish, start strong, or be a straight line or take a different approach?

The target for passenger vehicles should have a reasonably strong start. Australia needs to get to targets that match Europe and USA sooner. The target for commercial vehicles needs to be ambitious but still realistic compared to the ability for suppliers to import lower emission vehicles in this class.





Adjustment of limit level

• How many years ahead should the Government set emissions targets, and with what review mechanism to set limits for the following period?

A review every 5 years seems reasonable. The FES targets for each year should be set for the first 5 years, 2024 to 2028. The targets for the remaining years should be foreshadowed but not set in legislation. A review in 2028 should set the remainder of the yearly targets from 2029 to 2035 or earlier. The review should be undertaken by the Department of Transport and the targets for the next period should be set by the relevant Minister through regulations or gazettal.

• How should the Government address the risks of the standard being found to be too weak or too strong while it is operating?

A five yearly review should address any fine-tuning of the targets.

• Should an Australian FES adopt a mass-based or footprint-based limit curve?

Neither. There should be no limit curve. The emissions target should be the same for all vehicles within the category, regardless of size or mass. This is the same as a flat-line limit curve. If the government decides to adopt a limit curve, it should be mass-based.

The most effective FES would be one with no limit curve. Each gram of CO_2 saved should be treated equally valuable in the scheme, regardless of the size of vehicle from which it is emitted. This encourages the purchase of smaller and lighter vehicles which would have a greater effect at:

- reducing CO₂ emissions
- o reducing other noxious emissions
- o saving energy both petrol and electricity
- reducing damage to road surfaces
- reducing the trauma from road crashes.

The scheme should reverse the trend towards large SUVs and dual-cab utes.

A sloped limit curve gives distorted incentives. A supplier is helped to meet their emissions target more if they sell heavier zero-emissions vehicles. But heavier EVs will use more electricity, some of which will be generated from fossil fuel sources for the next two decades or more.

The only purpose of a limit curve is to provide some level of protection to suppliers of vehicles at the heavier end of the light vehicle category. This is sometimes supported by an argument in favour of a "level playing field" but a true level playing field is a universal emissions target for all



vehicle types, regardless of weight. Such suppliers will have avenues to avoid penalties by pooling credits or buying surplus credits. They may pass on price increases to customers but this is the expected outcome from an effective standard.

The concept of a limit curve is complex and difficult for the community to understand. It goes against the principle of transparency. An emission standard that applies to all passenger vehicles, regardless of size or mass, is much simpler and gives the right incentives.

• If Australia adopts a mass-based limit curve, should it be based on mass in running order, kerb mass, or another measure?

There should be no limit curve. However, if the government decides to adopt one, it should be based on kerb mass. This is simpler and easier to measure.

• Should Australia consider a variant of the New Zealand approach to address incentives for very light and very heavy vehicles? If so, noting that new vehicles that weigh under 1,200 kg are rare, where should the weight thresholds be set?

ITE-ANZ strongly recommends adopting a flat limit curve. Failing that, the same threshold values as New Zealand is the next best model to follow.

Multiple targets

• Should an Australian FES adopt two emissions targets for different classes of vehicles?

In principle, it is preferable to have a single set of emissions targets for all light vehicles. However, the supply of low-emission commercial goods vehicles is a long way behind passenger cars and there is therefore justification for two classes of light vehicles for the emissions targets.

It is recommended that the MA and MC classes be combined, as both of these are predominantly used for transporting people rather than goods. The NA class can be treated separately. The scheme should provide incentives for smaller, safer, more energy-efficient vehicles.

• Is there a way to manage the risk that adopting two targets erodes the effectiveness of an Australian FES by creating an incentive to shift vehicle sales to the higher emission LCV category?

Combining MA and MC classes mitigates against the risk of suppliers trying to sell more vehicles in the MC class rather than MA class. There is a continuous spectrum of SUVs some of which fall close to the border between these two classifications.

There is still a risk of this happening with the NA class, but the risk is smaller. Goods vehicles are predominantly used for transporting goods and are less likely to be attractive as the family car.

• Is there anything else we should bear in mind as we consider this design feature?

As above.

• Are there other policy interventions that might encourage more efficient vehicle choices?

There are many alternative policy interventions that could be applied. However, an ambitious FES is the most cost-effective policy.

Credit banking, transferring and pooling

• To what extent should the Australian FES allow credit banking, transferring and/or pooling?

The aim of the scheme is to achieve lower emissions across the whole sector and therefore some flexibility between suppliers will help to avoid disruptions to the market while retaining the effectiveness of the targets.

Providing this flexibility should allow the target emission levels to be more ambitious, particularly in the early years.



The scheme should include:

- a system of pooling
- \circ a system of accruing credits and banking them for future years
- \circ allowing suppliers to sell or transfer excess credits to another supplier.

Carrying forward debits should be restricted to only the first two years of the scheme.

• Should credits expire? In what timeframe?

ITE-ANZ does not have a view on this.

Multipliers for LZEVs

• Should an Australian FES include multiplier credits for LZEVs?

There should be no multiplier credits.

LZEV vehicles are no longer innovative; they are becoming mainstream. Australia's FES will only have a miniscule effect on the development of low-emission technologies worldwide. Multipliers may theoretically have an effect on the mix of vehicles that suppliers bring into the country, but this is going to be constrained by the conversion of overseas manufacturing processes. An ambitious emission target should have the same effect.

Multiplier credits or "super credits" distort the targets. For example, if half the vehicles a supplier sells in a future year are EVs with zero emissions and the other half are ICE vehicles with 150 g CO_2/km emissions, then its actual average emissions are 75 g CO_2/km . But with a multiplier of 1.5 (say) for the EVs, the average gets recalculated as 60 g CO_2/km . Reporting this against the target level would be misleading.

The US has reduced multiplier credits and will phase them out altogether for vehicles manufactured in 2026 onwards. The US EPA notes that "as zero emissions technologies become more mainstream, EPA believes it is appropriate to transition away from multiplier incentives." Similarly, the EU has reduced their multiplier down to 1.33 in 2022 and it may be phased out altogether. There is no point Australia adding the complexity of multipliers to its FES scheme when there is no vehicle manufacturing in Australia.

As with the concept of a limit curve, multiplier credits are complex and difficult for the community to understand. It goes against the principle of transparency.

• If so, what level should the multipliers be, should they apply equally to both classes of vehicle (if adopted) and for how long should they apply?

There should be no multiplier credits.

If multiplier credits were to be implemented for low-emission vehicles, a threshold level would have to be chosen to define what is a low level of emissions. This threshold could lead to argument and distort the incentives. Furthermore, decisions would need to be made about how the multipliers vary over the life of the scheme. Keeping the FES as simple as possible will avoid any perverse effects.

• Should the total benefit available from these credits be capped?

There should be no multiplier credits.

• If not, should the Government consider another approach to incentivising the supply and uptake of LZEVs?

Simply implement ambitious FES targets, trending down to zero emissions in new vehicles by 2035. Other incentives are covered by the National EV Strategy.



Off-cycle credits

• Should an Australian FES include off-cycle credits for specified technologies?

ITE-ANZ has no objections to off-cycle credits but including this feature must not delay introduction of the scheme.

- If so, should the per-vehicle benefit be capped and how should an Australian FES ensure that off-cycle credits deliver real emissions reduction?
- Should the Government consider any other form of off-cycle credits for an Australian FES?

ITE-ANZ does not have a view on this.

Air conditioning refrigerant gas credits

• Should an Australian FES include credits for using low global warming potential air conditioning refrigerants, and if so, for how long should this credit be available?

ITE-ANZ does not support including credits for using air conditioning refrigerants with low global warming potential. If the government decides to include this feature, it must not delay introduction of the scheme.

• Could the issue of high global warming potential refrigerants be better dealt with by another policy or legislative framework?

This can be addressed through vehicle design standards rather than the FES.

• If such a credit is permitted, should the emissions target be lowered to ensure consumers realise the fuel cost savings and EV availability benefits of a FES?

ITE-ANZ does not have a view on this.

When should a FES start?

• When do you think a FES should start?

The FES scheme should start on 1 January 2024. The industry should be immediately forewarned that this change is coming. Delays are unacceptable.

There should be no grace period, but it should be allowable for a supplier to carry forward debits for the first two years.

Administrative arrangements should be fast-tracked. Suppliers have been reporting to the FCAI voluntary scheme already.

• How should the start date interact with the average annual emissions ceiling?

The target levels for each year should be tied to the actual year rather than the number of years after the scheme starts. This should counteract any delaying tactics from vested interests and keep the scheme on track to reach zero emissions from new vehicles by 2035.

• Should the Government provide incentives for the supply of EVs ahead of a FES commencing? If so, how?

This seems unnecessary and could be an excuse to delay introduction of the FES. The best approach is to commence the scheme as soon as possible and ensure suppliers are given adequate forewarning.

Penalties for each gram per kilometre

• What should the penalties per gram be? Would penalties of A\$100 per gram provide a good balance between objectives? What is the case for higher penalties?

ITE-ANZ does not have a view on this.



Small volume and niche manufacturers

• What if any concessional arrangements should be offered to low volume manufacturers and why? If so, how should a low volume manufacturer be defined?

There is no justification for any concessional arrangements. The emissions from the vehicles imported by a low-volume supplier should be counted towards the overall target, regardless of whether the vehicles have high, low or zero emissions. Low-volume importers of high-emission vehicles will be able to pool or purchase credits from another supplier.

Information that suppliers will need to keep and supply

- The Government is keen to ensure any regulatory administrative costs are kept to a minimum while ensuring that outcomes are robust. What should the department keep in mind in designing the system for suppliers to provide information and in relation to record keeping obligations?
- What should the reporting obligations be? What information should be published and how regularly?
- How long should suppliers keep required information?
- Is a penalty of 60 penalty units appropriate for this purpose?

ITE-ANZ does not have a view on this.

Other regulatory mechanisms

• Should the regulator be the department? What other options are there?

Yes. The transport section of the Department of Infrastructure, Transport, Regional Development, Communications and the Arts is the best department to administer the scheme.

• How should the regulated entity be defined in an Australian FES?

ITE-ANZ does not have a view on this.

• What reasons are there to depart from the standard regulatory tool kit for an Australian FES?

ITE-ANZ does not have a view on this.

• Should an Australian FES use WLTP test results in anticipation of the adoption of Euro 6 and if so, what conversion should be applied to existing NEDC test results, or how might such a factor be determined?

WLTP is the better testing regime. There is no point adopting the NEDC system. There must be conversion factors available from other countries.

Conclusion

Thank you for the opportunity to comment on this important reform.

Yours sincerely



David Nash Secretary

