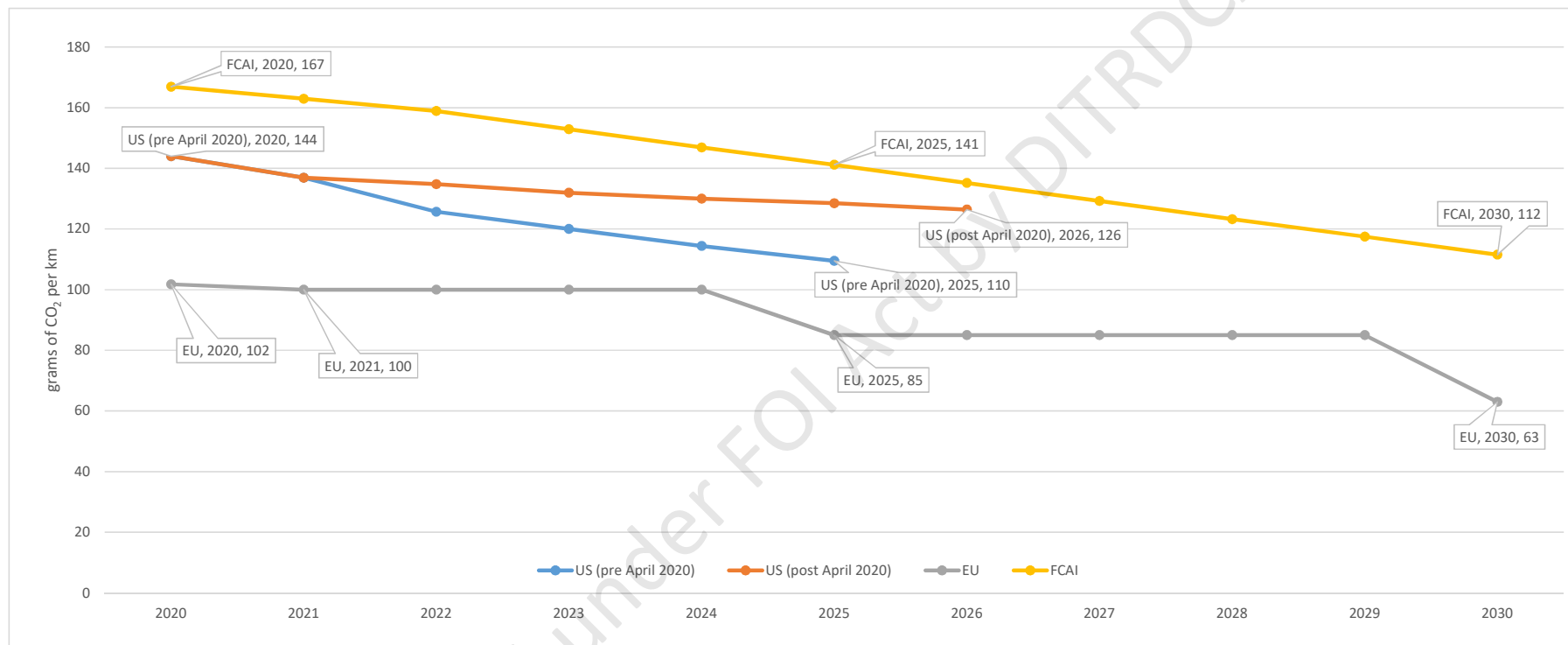


	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	% Improvement (2020-2025)	% Improvement (2020-2030)
US (pre April 2020)	144	137	126	120	114	110						24%	24%
US (post April 2020)	144	137	135	132	130	129	126					10%	13%
EU	102	100	100	100	100	85	85	85	85	85	63	15%	37%
FCAI	167	163	159	153	147	141	135	129	123	118	112	15%	33%



**The Federal Chamber of Automotive Industries (FCAI) voluntary fuel efficiency standard proposal**

1. Australian vehicle manufacturers, through the Federal Chamber of Automotive Industries (FCAI), have considered whether to adopt a voluntary CO<sub>2</sub> standard for new light vehicles. An announcement is expected in the first quarter of 2020.
2. The department understands that the voluntary standard is likely to be consistent with the model jointly proposed by the FCAI, the Australian Automobile Association (AAA) and Australian Institute of Petroleum (AIP) in May 2018 (Attachment A).
  - The model proposes a similar approach to the mandatory standard adopted in the United States.
3. Unlike a mandatory standard, manufacturers that do not comply would not face penalties.
  - Manufacturers can continue to sell popular models, but the voluntary standard will help Australian distributors make a stronger business case to their parent companies to offer hybrid, electric and hydrogen fuel cell vehicles not currently available in Australia.
  - The FCAI has advised that, in the absence of a CO<sub>2</sub> standard, vehicle manufacturers are unlikely to prioritise allocating low and zero emissions vehicles, including hybrid, battery electric and hydrogen fuel cell vehicles, to the Australian market.
  - We understand Kia has delayed the release of its electric vehicle models and Toyota has a long waiting list for the RAV4 hybrid due to competing priorities in other markets.
4. The voluntary standard would also enable manufacturers to demonstrate that they are 'doing their part' to reduce emissions.
  - If successful, this may reduce pressure on the Government to introduce a mandatory standard, which is likely to have intensified in response to the recent bushfires.
5. Vehicles fitted with next generation engines and technologies may be more expensive than existing models.
  - However, as manufacturers are already developing vehicles to meet fuel efficiency standards in North America, Europe and Asia, so manufacturers will be able to utilise technology developed for these markets.

### The AAA proposal for Real World Testing of vehicle fuel efficiency

1. Since 2015, the Australian Automobile Association (AAA) has been lobbying the Government to fund an on-road emissions testing program to provide consumers with more accurate information on fuel consumption and emissions.
  - It considers that the laboratory tests currently used in Australia to measure fuel consumption and emissions do not provide accurate information on how vehicles perform on the road.
  - It proposes to use the European 'real driving emissions (RDE)' test (adopted for noxious emissions in Europe) to provide more accurate information on fuel efficiency. This test is performed on public roads using a portable emissions measurement system (PEMS). AAA also proposes to publish these results on the Green Vehicle Guide website.
2. The RDE test adopted in Europe is a 'not to exceed' test that require manufacturers to demonstrate that their vehicle's noxious emission levels will not exceed a specified limit over a range of conditions.
  - The department has previously discussed the AAA's proposal with regulators in Europe, who have advised that the RDE test is not suitable for consumer information purposes, as there are a range of variables that affect fuel use and emissions in an RDE test, such as traffic and weather conditions and how the vehicle is operated and maintained. For these reasons, comparisons of results for individual vehicles could be misleading.
3. Vehicle manufacturers are also unlikely to support this proposal, as there is currently no internationally agreed approach to on-road testing for fuel consumption and CO<sub>2</sub> emissions.
  - We understand that the European Commission is exploring a range of options, as required by European legislation and the department is monitoring these developments. This proposal could be reconsidered when an international standard is developed in the next few years.
4. If AAA's proposal is implemented, these tests are likely to suggest that CO<sub>2</sub> emissions from Australian vehicles are higher than reported in the National Transport Commission's annual reports. This will increase pressure on the Government to introduce a mandatory fuel efficiency standard.
5. Should you wish to consider AAA's proposal further, the department recommends a pilot study that also considers the effects of these operating conditions on real world fuel consumption and CO<sub>2</sub> emissions.
  - This could help inform the development of an internationally accepted approach to measuring real world fuel consumption and CO<sub>2</sub> emissions through the UN World Forum for the Harmonisation of Vehicle Regulations.
6. This AAA has proposed that the Government spend \$3 million to test 60 vehicles each year. This includes the cost of renting or purchasing vehicles for testing and publishing information, as well the cost of testing itself. Note that this would only cover a small number of the 2,000 plus model variants currently available in Australia.

**Introducing a voluntary 'Euro 6' petrol standard**

1. Minister Taylor may wish to discuss a proposal for voluntary 'Euro 6' petrol standard to encourage manufacturers to supply Euro 6 petrol vehicles before changes to fuel quality standards take effect in 2027.
2. This may be proposed on the premise that Euro 6 vehicles are more fuel efficient than Euro 5 vehicles. The emission control technologies used to meet Euro 6 do not directly improve fuel efficiency, but Euro 6 vehicles are more likely to be fitted with advanced fuel saving technologies to meet fuel efficiency standards in other markets.
3. To achieve the desired outcome, manufacturers would need to be satisfied that this fuel is 'widely available' at service stations throughout Australia. This would require the support of fuel suppliers. Local refineries are unlikely to be able to supply this fuel for a number of years and may oppose this on the grounds it would put them at a competitive disadvantage.
4. State and territory governments may also have reservations, as some of the additives used in European fuels are not permitted in Australia due to concerns about water contamination risks.
5. Even if this fuel were to become widely available, there is no guarantee that manufacturers will supply Euro 6 vehicles, unless Euro 6 was also mandated.
  - The department notes that diesel fuel sold in Australia already has a sulfur limit of 10 parts per million, but most diesel vehicles, particular top selling utility vehicles, only meet Euro 5 standards.
  - Data from the Green Vehicle Guide shows that some manufacturers, such as Volkswagen, originally offered vehicles in Euro 6 specification, but changed to Euro 5 specification in subsequent releases.
6. The benefit of a voluntary fuel standard could be greater if it complemented the introduction of a mandatory Euro 6 standard. If there is a desire to consider this proposal further, you may wish to discuss this proposal with Minister for the Environment, as Minister Ley has portfolio responsibility for fuel quality standards.

### Consultation on Euro 6/VI noxious emission standards

1. Noxious emissions from road vehicles compound the effects of air pollution caused by events such as bushfires. In 2015, there were 620 deaths attributable to transport-related air pollution in Australia, at an estimated economic cost of up to \$9.2 billion. Adopting more stringent noxious emission standards would reduce air pollution from road vehicles.
2. Resolving the introduction of Euro 6/VI would help address community concerns about vehicle emissions, which are likely to have increased as a result of the recent bushfires.
  - It would also provide the certainty vehicle manufacturers are seeking to enable them to make a business case to offer the latest models, fitted with the latest safety and fuel saving technologies, to the Australian market.
3. Following your agreement in August 2019 (MS19-001233 refers), the department has discussed the possible introduction of Euro 6 for light vehicles and Euro VI for heavy vehicles with key stakeholders.
  - There is almost universal support for the introduction of Euro 6 and Euro VI, but heavy vehicle stakeholders differ on introduction timeframes for Euro VI.

#### Light vehicles

4. Light vehicle manufacturers consider that Euro 6 cannot commence until changes to petrol fuel quality take effect in 2027, as this would risk operability issues.
5. Noting the concerns raised by manufacturers, the department has developed a regulation impact statement that proposes to mandate Euro 6 when changes to fuel quality commence on 1 July 2027.
6. This approach is expected to have the support of vehicle manufacturers, but other stakeholders, such as state and territory governments may seek an earlier introduction for diesel vehicles (as diesel fuel quality already has a sulfur limit that is suitable for Euro 6 vehicles).

#### Heavy vehicles

7. Nearly all truck and bus manufacturers support a move to Euro VI from 2023 or 2024. The only exception is Volvo Australia who advised they cannot move to Euro VI across all of their product lines until 2027. The Australian Trucking Association (ATA) has supports Volvo Australia's position and has not indicated any change.
8. Noting the concerns raised by Volvo Australia and the ATA, the department has developed a regulation impact statement that proposes to mandate Euro VI from 2027.
9. As other heavy vehicle manufacturers prefer an earlier start date, Euro VI could commence from 2023-24 for buses and medium duty trucks up to 12 tonnes, as these vehicles are more likely to operate in urban areas and are not supplied by Volvo Australia. Further advice will be provided, if there is strong support for this option during consultation.
10. Both the Truck Industry Council and the ATA want higher axle mass limits to offset the weight added by advanced safety and emissions technologies.
  - The NHVR has proposed releasing a consultation paper recommending higher axle mass limits where manufacturers voluntarily offered Euro VI (or equivalent) trucks fitted with advanced safety features.
  - Due to concerns raised previously about this proposal by the ATA and Volvo Australia, the department recommends the NHVR defer consultation on this proposal until the introduction of Euro VI has been resolved.

**Teleconference with Volkswagen Group Australia (s47F )****23 March 2020, 11:00am****Key points**

Battery capacity constraints mean that manufacturers are prioritising markets with mandatory CO2 targets (EU, US and China)

See a market for EVs in Australia, but difficult to secure supply at this time, hoping to launch first EV model in Australia in 2022-23. EV infrastructure availability was considered critical for market readiness.

Fuel quality affected their ability to offer hybrid and plug-in hybrid variants in Australia, as they use variable geometry engines, sulfur levels too high for petrol particulate filters.

Tier 1 (most advanced) engines previously offered in Australia are no longer available due to requirements for more sophisticated engines in other markets, now shifting to less advanced engines for 'Tier 2' (less advanced) markets. Tiguan previous had engine with idle stop-start, replacement Tier 2 engine does not.

Connected vehicles packaged with Tier 1 engines.

It takes 12-18 months to conduct specific durability testing for the Australian market fuel. This is not viable for model variants that are likely to sell less than 500 units per year.

Misalignment of EU (WLTP) and Australian (NEDC) test regimes also adds cost, support earliest possible transition to WLTP and low sulfur petrol.

Euro 7 likely to commence before 2027, leaving Australia further behind. Other manufacturers likely to support moving to Euro 6 as this would reduce complexity of their engine range.

Could work with Euro 6 market fuel (e.g. by 98 RON) if it widely available outside major cities.

Agreed to supply submission to fuel quality RIS.

Diesel LCVs likely to remain for foreseeable future, but also exploring electric LCVs. Offer a mix of Euro 5 and 6 LCVs.



# Ashley Sanders

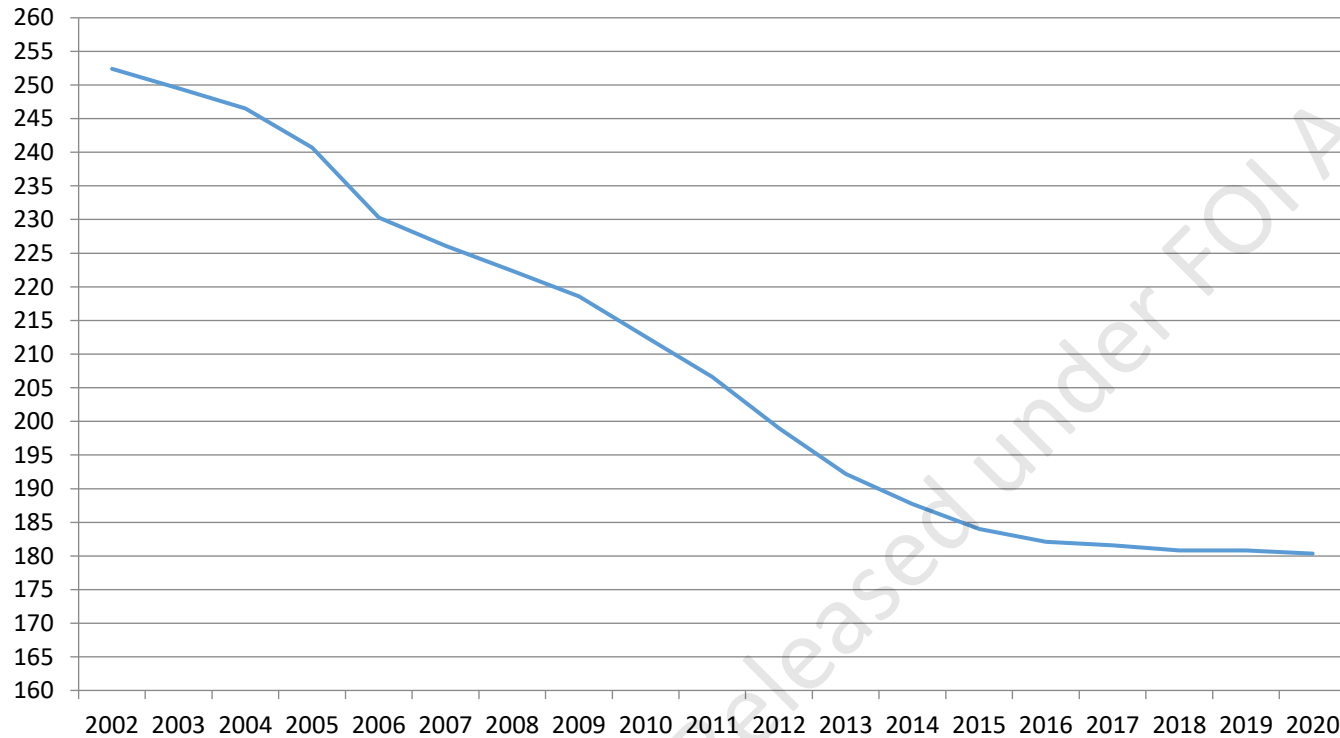
FCAI Technical Director

## CO<sub>2</sub> reduction and reporting

# CO<sub>2</sub> reporting rules



NACE (gCO<sub>2</sub>/km)



- Fundamental change of reporting from NACE by the NTC to the FCAI CO<sub>2</sub> standard.



# CO<sub>2</sub> reporting rules



- Sales-weighted, mass based attribute limit curve
- Whole of Industry target supported by individual brand/entity interim goals.
- Separate targets for
  - MA - Passenger vehicles and light SUV
  - MC+NA - Large 4WD SUV vehicles and  
- Light commercial vehicles



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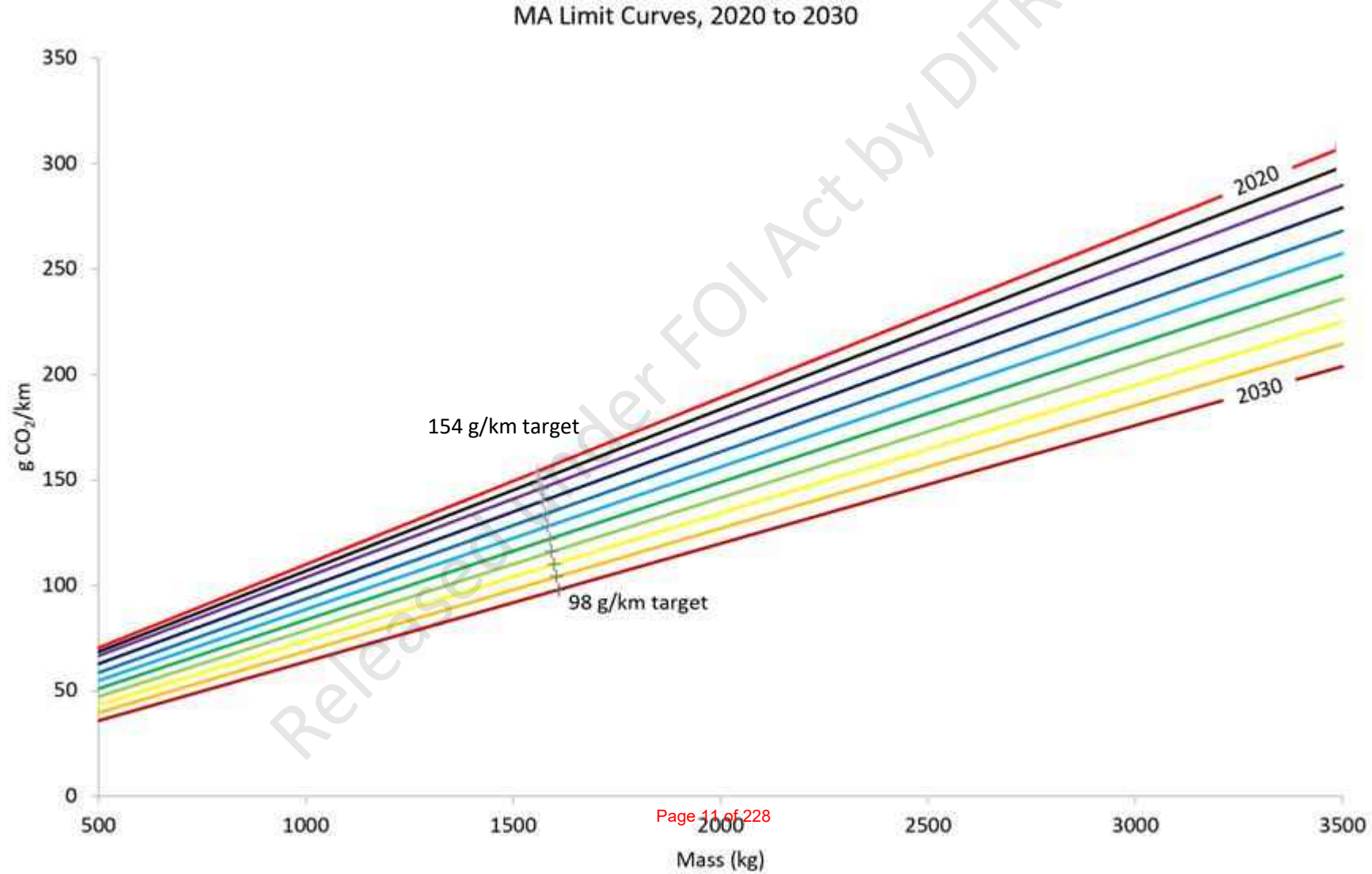
# CO<sub>2</sub> reduction achievement and reporting

Similar to international CO<sub>2</sub> standards but using features relevant to the Australian market

Super Credits	Incentivise the introduction of LEV
Off Cycle credits	Allowing technologies already approved under USA and European regulation
A/C gas credit	Incentivise the use of low GWP gas
Credits / debits	Allowing for product cycles

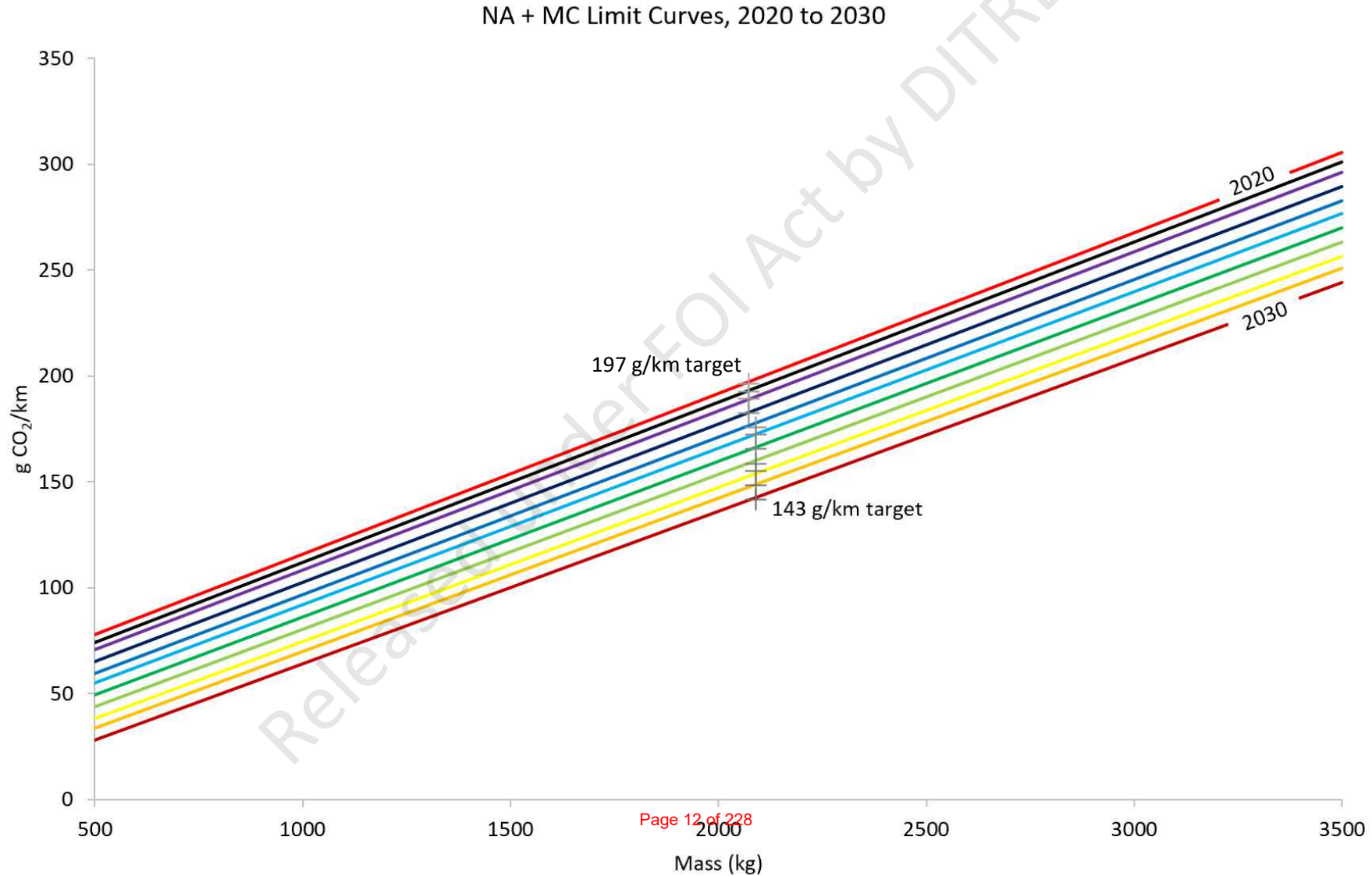


# Mass limit curves - MA





# Mass limit curves – MC+NA





# Super credits

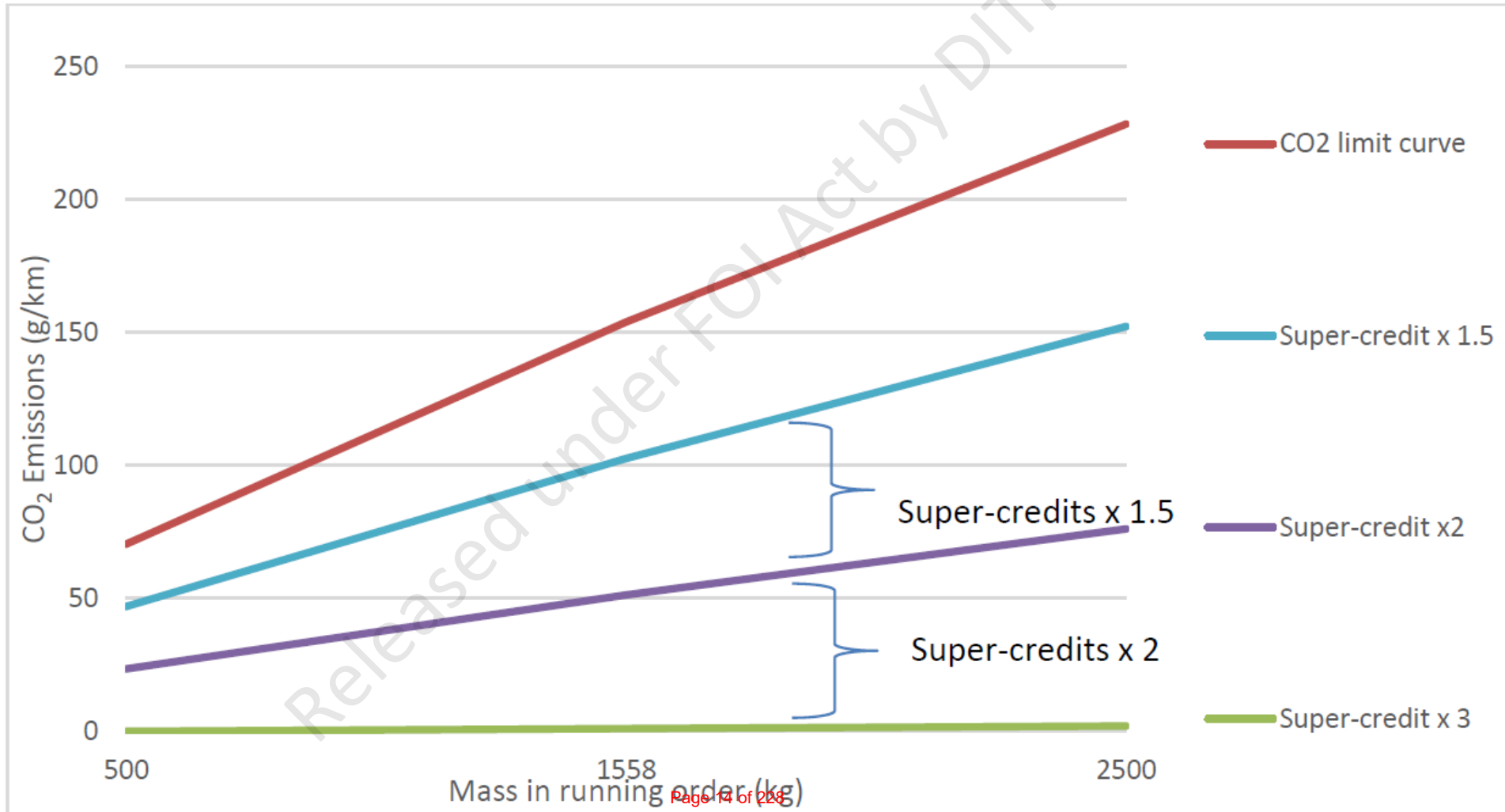
Super credits will be linked to the targets and value limit curve for each year for MA and MC/NA category targets

- Vehicles emitting 0g/km will be counted as three vehicles
- Vehicles between 1-33% of value limit curve for that target year will be counted as two vehicles.
- Vehicles between 34-66% of value limit curve for that target year will be counted as one and a half vehicles



# Super credits

Figure 6.1 – Super-Credit Limit Curves for MA Category 2020 Target Year Mass Limit Curve





# Off cycle credits

Off Cycle Credits reward the introduction of eco-innovation and other fuel saving technologies not measured by the ADR 81/02 drive cycle

- For international consistency, a maximum of 7g CO<sub>2</sub>/km per unit of off-cycle credits can be claimed by each brand towards their target



# Off cycle credits

**Table 5.1 Off-Cycle Technologies and Credits**

Off-cycle Technology <sup>1</sup>	Credit for MA Category Vehicles		Credit for NA&MC Category Vehicles	
	US (g/mile)	Aust (g/km) <sup>2</sup>	US (g/mile)	Aust (g/km) <sup>2</sup>
High efficiency exterior lights	1.0	0.6	1.0	0.6
Waste heat recovery	0.7	0.4	0.7	0.4
Solar panels – battery charging only	3.3	2.0	3.3	2.0
Solar panels – active cabin ventilation and battery charging	2.5	1.6	2.5	1.6
Active aerodynamic improvements (for a 3% aerodynamic drag reduction)	0.6	0.4	1.0	0.6
Engine idle stop/start – with heater circulation system	2.5	1.6	4.4	2.7
Engine idle stop/start – without heater circulation system	1.5	0.9	2.9	1.8
Active transmission warm-up	1.5	0.9	3.2	2.0
Active engine warm-up	1.5	0.9	3.2	2.0
Solar/thermal control <sup>3</sup>	3.0	1.9	4.3	2.7





# Off cycle credits

**Table 5.2 Off-Cycle Solar/Thermal Control and Credits**

Off-cycle Technology <sup>4</sup>	Credit for MA Category Vehicles		Credit for NA&MC Category Vehicles	
	US (g/mile)	Aust (g/km) <sup>2</sup>	US (g/mile)	Aust (g/km) <sup>2</sup>
Glass or glazing	2.9	1.8	3.9	2.4
Active seat ventilation	1.0	0.6	1.3	0.8
Solar reflective paint	0.4	0.2	0.5	0.3
Passive cabin ventilation	1.7	1.1	2.3	1.4
Active cabin ventilation	2.1	1.3	2.8	1.7



# Air conditioner gas credits

Air conditioner gas credits are allowed for each unit sold with an air condition system charged with a gas with a Global Warming Potential (GWP) < 10

- 10 g/km for MA category vehicles.
- 15 g/km for NA+MC category vehicles.



# CO<sub>2</sub> reporting – whole of industry result

	2019 Sales Volume ②	2019 Average specific emissions of CO <sub>2</sub> (g CO <sub>2</sub> /km) ③	2020 Specific emissions target (g CO <sub>2</sub> /km)④	Distance to target (g CO <sub>2</sub> /km) ⑤
Industry (FCAI members) MA category	706,334	163.05	154	+9.05
Industry (FCAI members) MC+NA category	315,171	220.26	197	+23.26
Total	1,021,505			

NOTE: 2019 actual used for comparative and demonstration purposes only



# CO<sub>2</sub> reporting – FCAI reporting v EU reporting

Manufacturer ①	Sales Volume ②	Average specific emissions of CO <sub>2</sub> (g CO <sub>2</sub> /km) ③	Specific emissions target (g CO <sub>2</sub> /km)④	Distance to target (g CO <sub>2</sub> /km) ⑤	Carry Forward Credit / Debit (g CO <sub>2</sub> /km) ⑥
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Table A3.1 CO<sub>2</sub> emission performance of car manufacturers in 2017

Manufacturer	Pools and derogations	Number of registrations	Average specific emissions of CO <sub>2</sub> (gCO <sub>2</sub> /km)	Specific emissions target (gCO <sub>2</sub> /km)	Distance to target (gCO <sub>2</sub> /km)
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Adidor Volkswagen AG	DMD	42	159.000		
Alfa Romeo SPA	P1	82 137	133.388	133.388	-12.882
Alpina Burkard Boverslepen GmbH E CO KG	DMD	486	179.021		
Societe Des Automobiles Alpine		7	137.000	119.425	17.575
Aston Martin Lagonda Ltd	D	2 174	289.245	299.000	-9.755
Audi AG	P13	6 701	124.527	137.686	-13.159
Audi Hungaria Motor KFT	P13	7 743	145.060	129.957	15.103
Automobilfabrik Pilsen		6 087	190.584	131.063	-59.521



# Summarising the FCAI CO<sub>2</sub> standard

- FCAI CO<sub>2</sub> Standard will be implemented in 2020
- FCAI will collate results
- FCAI will publish 2020 results in Q1 of 2021
- Reporting will be at industry and brand/entity level
- Results will be presented at an FCAI press conference on a yearly basis

# Questions

FOI 23-076



Released under FOIA Act by DITRDCA



# Federal Chamber of Automotive Industries July 2020



# Tony Weber

FCAI Chief Executive

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# Background - Fundamentals of the Standard

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1. FCAI's CO2 Standard covers the period 2020 ~ 2030
2. The end goal at 2030 aligns with Australia's Paris commitment
3. Annual progress – to allow transparency
4. Standard draws on experience from international regulations
5. Needs to be ambitious and challenging
6. Technology neutral



# Background - Fundamentals of the Standard



There is one Target and  
that target is in 2030



# Ashley Sanders

FCAI Technical Director

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# CO<sub>2</sub> reporting rules

- Fundamental change of reporting from NACE to the FCAI CO<sub>2</sub> standard.
- Sales-weighted, mass based attribute limit curve
- Whole of Industry target supported by individual brand/entity interim goals.
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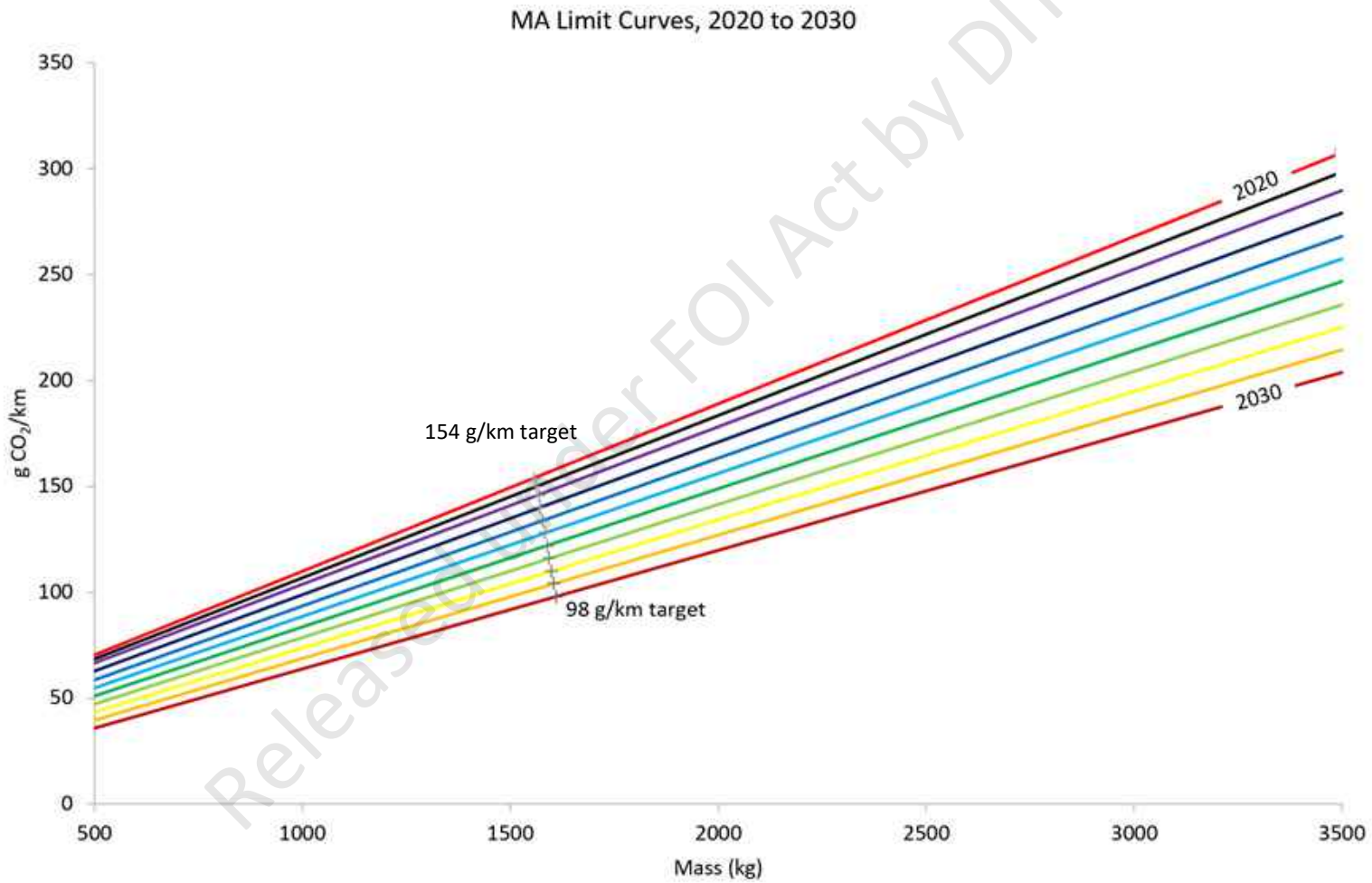
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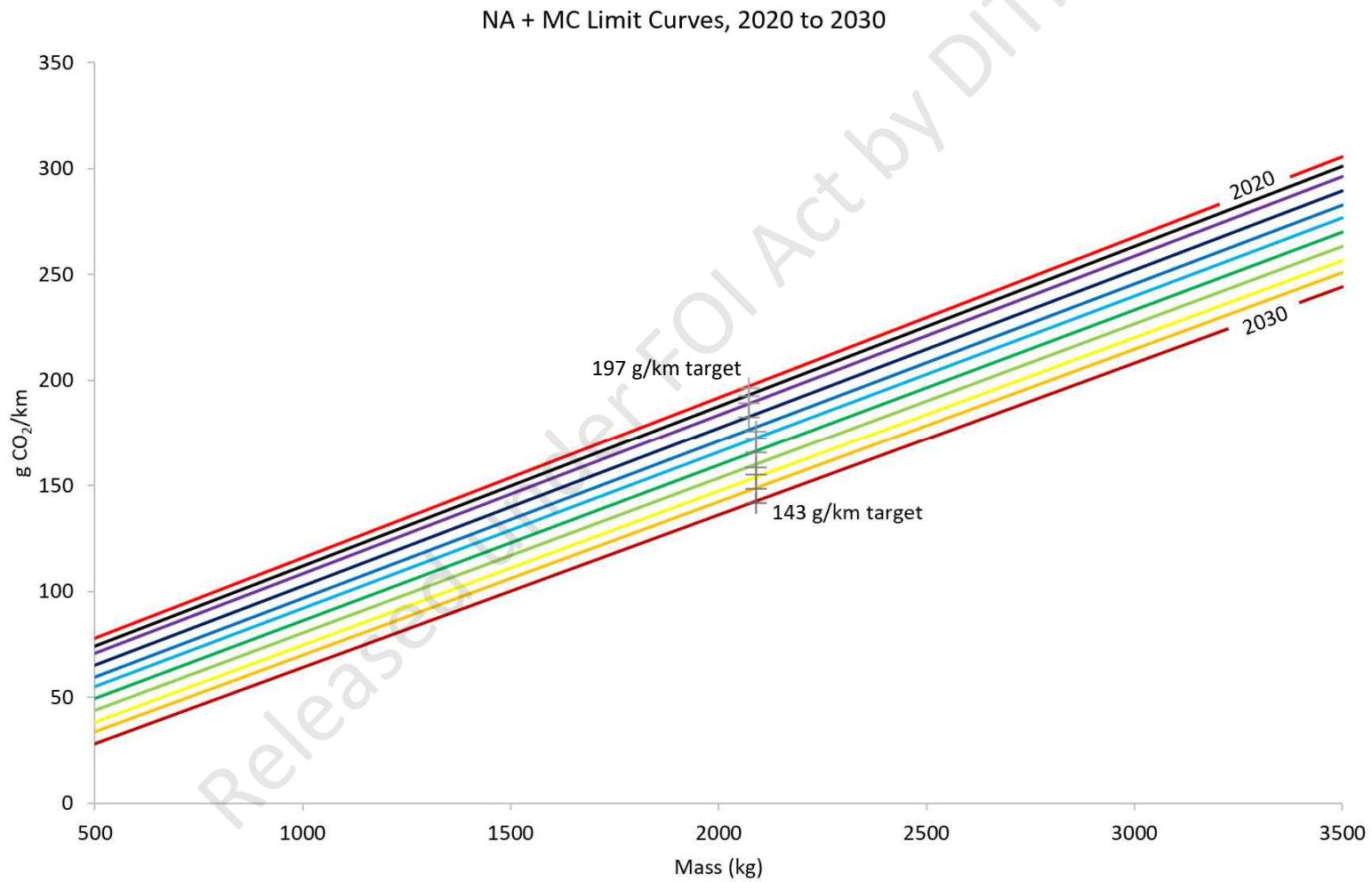


# Mass limit curves - MA





# Mass limit curves – MC+NA





# Super credits

Super credits will be linked to the targets and value limit curve for each year for MA and MC/NA category targets

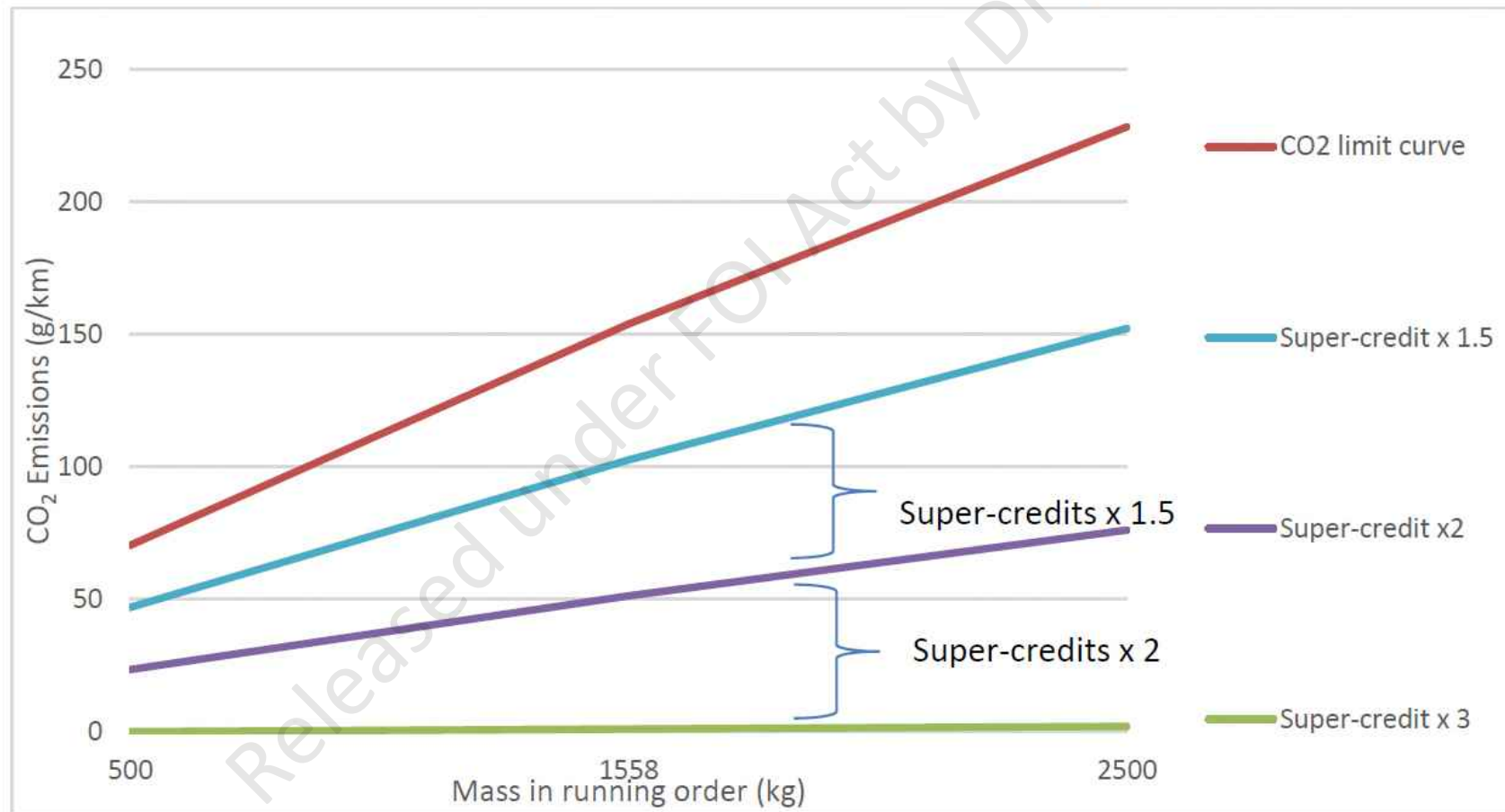
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# Super credits

Figure 6.1 – Super-Credit Limit Curves for MA Category 2020 Target Year Mass Limit Curve





## Off cycle credits

Off Cycle Credits reward the introduction of eco-innovation and other fuel saving technologies not measured by the ADR 81/02 drive cycle

- For international consistency, a maximum of 7g CO<sub>2</sub>/km per unit of off-cycle credits can be claimed by each brand towards their target



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## Summarising the FCAI CO<sub>2</sub> standard

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# Questions



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## FCAI Voluntary CO2 Standard

### Key Points:

1. The Federal Chamber of Automotive Industries (FCAI) plans to announce its voluntary CO2 standard for its members on Friday 24 July. FCAI members currently account for 99 per cent of new light vehicle sales in Australia.
2. We understand that the Chief Executive of the FCAI has foreshadowed this announcement with your office and Minister Taylor's office, as well as the responsible members of the opposition parties.
3. FCAI has confirmed that the proposed targets are consistent with those proposed to the Government in 2018 (98g/km by 2030 for passenger vehicles, 143g/km by 2030 for 4x4s and light commercial vehicles). This equates to a 38 per cent improvement on current levels reported by the National Transport Commission.
4. FCAI plans to report annually at both an industry and manufacturer level. All members of the FCAI are covered by the standard, but there are no financial penalties for non-compliance.
5. The intent of the standard is to encourage more efficient vehicle models available in markets with fuel efficiency standards, without restricting consumer choice.

### Talking points:

- The goal of the Australian Government is to encourage cleaner, more affordable cars that use less fuel, as this means cheaper bills for families and is better for our health and the environment.
- We are committed to reducing the environmental and health impacts of road vehicle emissions by improving Australia's access to new vehicle technologies, not restricting consumer choice.
- The FCAI's voluntary standard will encourage manufacturers to offer their latest and most advanced models, while ensuring the vehicles Australian motorists value remain in the market.



**Archived:** Monday, 30 January 2023 2:59:50 PM

**From:** [Wayne Watson](#)

**Mail received time:** Thu, 2 Jul 2020 10:10:12

**Sent:** Thu, 2 Jul 2020 00:09:56

**To:** [GvG](#)

**Subject:** FW: Mazda 2 emission compliance information [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

---

Hello [s47](#),

Please see below. Euro 5 only for Mazda 2.

Regards,

Wayne.

---

**From:** Morinaga Michiko (・X・i・マ・q)

**Sent:** Thursday, 2 July 2020 9:58 AM

**To:** Wayne Watson

**Subject:** RE: Mazda 2 emission compliance information [SEC=OFFICIAL]

Hello Watson-san,

All Mazda2 intended for Australia are developed to meet Euro 5 since the requirement there is still Euro 5.

We do have UN-R83.06 certificate showing compliance to Euro 5 if this is required.

Best regards,

Michiko

---

**From:** Wayne Watson <[s47F](#) [@mazda.com.au](mailto:s47F@mazda.com.au)>

**Sent:** Thursday, July 2, 2020 8:20 AM

**To:** Morinaga Michiko (・X・i・マ・q) <[s47F](#) [@mazda.co.jp](mailto:s47F@mazda.co.jp)>

**Subject:** FW: Mazda 2 emission compliance information [SEC=OFFICIAL]

Hello Morinaga-san,

Are you able to tell me if the VIN below has Euro5 or Euro6 equivalent certification?

Thank-you for any assistance.

Best Regards,

Wayne.

FOI 23-076

---

**From:** GvG <[GvG@infrastructure.gov.au](mailto:GvG@infrastructure.gov.au)>  
**Sent:** Thursday, 2 July 2020 9:18 AM  
**To:** Wayne Watson <[s47F@mazda.com.au](mailto:s47F@mazda.com.au)>  
**Subject:** RE: Mazda 2 emission compliance information [SEC=OFFICIAL]

**OFFICIAL**

Thanks Wayne,

The VIN for this vehicle is [s47F](#)

Regards

[s47F](#)

Sustainable Transport  
Department of  
Infrastructure, Transport,  
Regional Development  
and Communications

t: +61 2 [s47F](#)

w:

[www.infrastructure.gov.au](http://www.infrastructure.gov.au)

GPO Box 594, Canberra  
ACT 2601

*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

**OFFICIAL**

---

**From:** Wayne Watson <[s47F@mazda.com.au](mailto:s47F@mazda.com.au)>  
**Sent:** Thursday, 2 July 2020 8:52 AM  
**To:** GvG <[GvG@infrastructure.gov.au](mailto:GvG@infrastructure.gov.au)>  
**Subject:** RE: Mazda 2 emission compliance information [SEC=OFFICIAL]

Hello [s47F](#)

If you want to give me the VIN number I can find out, or if you want to give the customer my details I can work with them.

Regards,

Wayne.

---

**From:** GvG <[GvG@infrastructure.gov.au](mailto:GvG@infrastructure.gov.au)>

Sent: Thursday, 2 July 2020 8:29 AM

FOI 23-076

To: Wayne Watson <s47F@mazda.com.au>

Subject: Mazda 2 emission compliance information [SEC=OFFICIAL]

**OFFICIAL**

Hi Wayne,

We have received an enquiry from a customer who has exported a Australian Mazda 2 to the UK. They are were hoping to get confirmation that the vehicle met Euro 6 requirements, so they can reregister their vehicle in the UK. They contacted Mazda customer service here, who referred them to GVG data.

The information on the GVG shows that the vehicle is complies with Euro 5 in Australia, as no additional information was submitted to demonstrate Euro 6 compliance. Are you able to advise who they should contact to check whether the vehicle is covered by an EC or UN type approval to Euro 6? I imagine they may need to contact your colleagues in Japan, if this information was not supplied for ADR certification.

Regards

s47F

Sustainable Transport  
Department of  
Infrastructure, Transport,  
Regional Development  
and Communications

t: +61 2 s47F

w:

[www.infrastructure.gov.au](http://www.infrastructure.gov.au)

GPO Box 594, Canberra  
ACT 2601

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**Archived:** Monday, 30 January 2023 3:00:12 PM  
**From:** s47F  
**Mail received time:** Tue, 14 Jul 2020 13:04:16  
**Sent:** Tue, 14 Jul 2020 13:04:15  
**To:** [STEEL Lee](#) [HALL Jessica](#)  
**Cc:** s47F  
**Subject:** Meeting with the FCAI [SEC=OFFICIAL]  
**Importance:** Normal  
**Sensitivity:** None

---

OFFICIAL

Hello Lee/Jess

We had a meeting with Ashley Sanders, the Technical Director at the FCAI today. A couple of points to note:

#### Voluntary CO<sub>2</sub> Standard

- FCAI are planning to make an announcement at the end of this month. Hope to provide a more detailed briefing to the department before then.
- Confirmed that targets will be consistent with the proposal we received in 2018 (98g/km for passenger cars, 143g/km for 4x4s and light commercials by 2030).
- Standard will apply to all FCAI members - no opt out is possible. It will commence in 2020 and they will likely report at an industry and a brand level in 2021. Some concerns from members about being named and shamed.
- **FCAI have briefed the Opposition (Mark Butler) on the proposed approach.**
- FCAI have also discussed the potential amount of CO<sub>2</sub> abatement with DISER (which we knew).

#### Euro 6

- Advised the FCAI that the consultation RIS is planned to be released later in 2020. Tested views on possible earlier introduction of Euro 6 for diesels and introduction of interim Euro 6b before 2027.
  - Open to an earlier introduction for diesel vehicles.
  - Unlikely to support any introduction of Euro 6b for petrol vehicles before 2027 (they are concerned about fuel quality and the review of aromatics in petrol in 2022).

Discussed a few technicalities about testing procedures that were raised at the UN GPRE meeting.

Thanks

s47F

Sustainable Transport | Land  
Transport Policy  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

t: 02 s47F | m: s47F

e:

s47F [redacted] [@infrastructure.gov.au](mailto:[redacted]@infrastructure.gov.au)  
GPO Box 594, Canberra ACT 2601

FOI 23-076

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MS20-001189




**Australian Government**  
**Department of Infrastructure, Transport,**  
**Regional Development and Communications**

**To: The Hon Michael McCormack MP** (for noting)  
**cc:** Mr Simon Atkinson, Secretary  
**cc:** Mr David Hallinan, Deputy Secretary, Infrastructure & Surface Transport  
**cc:** Ms Jessica Hall, First Assistant Secretary, COVID Surface Transport

**Federal Chamber of Automotive Industries (FCAI) Voluntary Fuel Efficiency Standard**

**Action required by:** Friday 24 July 2020

**Reason:** the FCAI will announce a voluntary fuel efficiency standard on that date

<p><b>Recommendation:</b></p> <p>1. That you <b>note</b> the FCAI will announce the introduction of a voluntary fuel efficiency standard for its members on 24 July 2020. Suggested talking points are at <b>Attachment A</b>.</p> <p style="text-align: right;"><b>Noted / Please Discuss</b></p>
<p style="text-align: center;">  <span style="float: right;">23/7/2020</span> </p> <p><b>The Hon Michael McCormack MP</b> <span style="float: right;">Date:</span></p> <p><b>Comments:</b></p>

**Key Points:**

*FCAI voluntary fuel efficiency standard*

1. On Friday 24 July 2020, the FCAI will announce the introduction of a voluntary fuel efficiency (CO<sub>2</sub>) standard. The voluntary standard will apply to all members of the FCAI and will commence from 2020. FCAI members currently account for 99 per cent of new light vehicle sales in Australia.
2. The intent of the voluntary standard is to encourage manufacturers to offer more fuel efficient vehicles, including hybrid, electric and other low and zero emission vehicles, in Australia.
3. The Department understands that the Chief Executive of the FCAI has provided briefing to your office and the office of the Minister for Energy and Emissions Reduction, the Hon Angus Taylor MP, as well as opposition party spokespersons.
4. The FCAI has confirmed that the CO<sub>2</sub> fleet targets in the standard are consistent with those proposed by them to the Australian Government in 2018 (98g/km by 2030 for passenger vehicles and 143g/km by 2030 for 4x4s and light commercial vehicles).
5. The FCAI plans to report annually against these targets at both an industry and manufacturer level. The first report will be published in the first quarter of 2021. We understand that there will be no financial penalties for non-compliance.

6. The voluntary standard may help safeguard against an increase in emissions across the new light vehicle fleet.

*Australian Government position on fuel efficiency standards*

7. Australia is one of few developed countries not to have a light vehicle fuel efficiency standard. Such standards have been adopted in 80 per cent of the global vehicle market including in the US, EU and Japan.
8. The Department considers it unlikely that the proposed FCAI voluntary standard will force manufacturers to raise vehicle prices or reduce the range of vehicles available in Australia, based on experience in the EU, US, UK, Germany and Canada.
9. The proposed standard is also unlikely to affect safety outcomes. Vehicles must continue to comply with Australian Design Rules and many manufacturers are committed to ensuring that their vehicles achieve five star ANCAP safety ratings.

**Stakeholder Implications:**

10. Opposition parties, states and territories and/or environment groups may question whether the FCAI's voluntary standard is sufficient to significantly reduce emissions, and renew calls for the Government to introduce a more stringent mandatory fuel efficiency standard.
11. The Australian Automobile Association (AAA) may reiterate its call for the Government to fund an independent testing program to verify fuel efficiency information reported by manufacturers. The AAA considers improvements to comply with the FCAI standard in laboratory test conditions may not necessarily be realised by consumers on the road.

**Sensitivities:**

12. While the notional CO<sub>2</sub> fleet targets may be difficult for manufacturers to meet for 2020, BITRE analysis suggests manufacturers should meet the FCAI targets for 2030 with only minor adjustments (such as improved air conditioning systems).
13. There may be increased pressure on the Government to introduce a mandatory standard if industry fails to meet its own targets.

**Consultation:**

Federal Chamber of Automotive Industries; Department of Industry, Science, Energy and Resources

Name: Lee Steel  
Position: Assistant Secretary  
Division: COVID Surface Transport  
Ph: 02 6274 8125  
Mob: s47F  
Date: 23 July 2020

Contact Officer: s47F  
Section: Sustainable Transport  
Ph: 02 s47F  
Mob: s47F

**Attachments:**

- A: Suggested Talking Points
- B: FCAI Presentation (embargoed until 12:00pm AEST Friday 24 July 2020)
- C: Comparison of FCAI Voluntary Standard with US and EU standards



**Archived:** Monday, 30 January 2023 3:00:40 PM

**From:**

**To:** s47F

**Subject:** FW: FCAI Voluntary CO2 emissions standard [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

OFFICIAL

FCAI's bounding of CO2 emissions for the purposes of super credits is one to consider for the LZEV definitions paper

**From:** s47F

**Sent:** Wednesday, 12 August 2020 3:46 PM

**To:** s47F <[s47F@ustrade.gov.au](mailto:s47F@ustrade.gov.au)>; s47F <[s47F@ustrade.gov.au](mailto:s47F@ustrade.gov.au)>

**Cc:** s47F <[s47F@ustrade.gov.au](mailto:s47F@ustrade.gov.au)>

**Subject:** FCAI Voluntary CO2 emissions standard [SEC=OFFICIAL]

OFFICIAL

Colleagues

At our LZEV RCoP meeting earlier today, Jason gave an update on the Federal Chamber of Automotive Industries' announcement of a voluntary CO<sub>2</sub> emissions standard for new light vehicles. Below are some further points on this that may assist.

The voluntary standard will apply to all members of the FCAI and will commence from 2020. FCAI members currently account for 99 per cent of new light vehicle sales in Australia.

The FCAI plans to report annually against these targets at both an industry and manufacturer level. The first report will be published in the first quarter of 2021.

The voluntary standards provide for a sales-weighted, mass-based limit curve on fleet average CO<sub>2</sub> emissions and produce a forecasted result of:

- 100g/km CO<sub>2</sub> at 2030 for passenger vehicles—an average annual reduction of 4 per cent per annum; and
- 145g/km CO<sub>2</sub> at 2030 for 4x4s and light commercial vehicles—an average annual reduction of 3 per cent per annum.

Reporting under the standard will provide for the carrying forward of credits and debits.

- From 2020 to 2030, credits will be carried forward for up to five years.
- From 2024 to 2030, debits will be recorded and carried forward for up to five years. Prior to 2024, no debits will be carried forward.

The standard will provide for vehicle super credits designed to incentivise sales of LZEVs.

- Battery electric and hydrogen fuel-cell electric vehicles will be counted as three vehicles.
- Vehicles between one and 33 per cent of the CO<sub>2</sub> limit will be counted as two units.
- Vehicles between 34 and 66 per cent of the limit will be calculated as 1.5 vehicles.
- From 2020 to 2030, credits will be carried forward for up to five years, including those earned from 2020 to 2023. From 2024 to 2030, debits will be recorded and carried forward for up to five years. Prior to 2024, no debits will be carried forward.

The standard will also provide credits for non-drivetrain related emissions reductions, including:

- off-cycle credits for those CO<sub>2</sub> emissions reductions from fuel efficiency improvements not reflected in drive cycle performance measurements (e.g. start-stop engine technology); and
- A/C gas credits for vehicles sold with air-conditioning units with a low use of synthetic greenhouse gases.

The standard will not carry financial penalties for non-compliance.

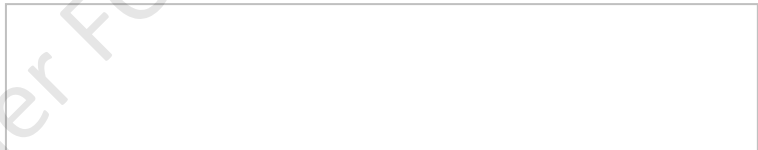
The FCAI's media release is available at: <https://www.fcai.com.au/news/index/view/news/652>

Kind regards

s47F

Assistant Director | Sustainable Transport  
COVID Freight & Logistics | COVID Surface  
Transport  
Department of Infrastructure, Transport, Regional  
Development and Communications

t: 02 s47F | m: s47F



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**Archived:** Monday, 30 January 2023 3:01:38 PM

**From:** [Scott Nargar](#)

**Mail received time:** Fri, 4 Dec 2020 11:53:35

**Sent:** Fri, 4 Dec 2020 00:51:17

**To:** s47F

**Cc:** s47F

**Subject:** RE: Vehicle Supply [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[Hyundai Press Release - HMG to lead charge into electric era with dedicated EV Platform E-GMP - 021220 V3.doc](#);

---

Good afternoon Jason,

I'm still waiting for feedback. Unfortunately everyone has been working on the global launch of our new E-GMP (Electric Global Modular Platform) this week.

See attached for more info about this amazing new tech. We will see our first E-GMP here in Australia next year and maybe even a second by the end of 2021.

[https://www.youtube.com/watch?v=AzUGmOt\\_1ks](https://www.youtube.com/watch?v=AzUGmOt_1ks)

Regards,

Scott



**Scott Nargar**

Marketing

Senior Manager of Future Mobility & Government Relations

T s47F M s47F

s47F @hyundai.com.au www.hyundai.com.au

**Hyundai Motor Company Australia**

**All-new  
Hyundai  
i30 Sedan.**



**From:** s47F

**Sent:** Friday, 4 December 2020 10:11 AM  
**To:** Scott Nargar  
**Cc:** s47F  
**Subject:** RE: Vehicle Supply [SEC=OFFICIAL]

FOI 23-076

**OFFICIAL**

Hello Scott

Any luck trying to source a list of vehicles?

Thanks

s47F  
Sustainable Transport | Land  
Transport Policy  
Department of Infrastructure,  
Transport, Regional Development  
and Communications  
t: 02 s47F | m: s47F  
e:  
s47F [@infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)  
GPO Box 594, Canberra ACT  
2601



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**From:** s47F  
**Sent:** Wednesday, 2 December 2020 1:40 PM  
**To:** Scott Nargar <s47F [@hyundai.com.au](mailto:s47F@hyundai.com.au)>  
**Cc:** s47F <s47F [@infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)>  
**Subject:** Vehicle Supply [SEC=OFFICIAL]  
**Importance:** High

**OFFICIAL**

Hello Scott

As discussed, we are trying to source a list of vehicles/models/variants that cannot be supplied to Australia due to our poor quality fuel or outdated emissions standards etc. It doesn't have to be exhaustive but some indication would be good. Also we are interested to see whether there may be environmental, safety, connected or other technical features that are supplied with your newer engine platforms but may not make it here (for example mild hybrid or other engines that cannot be supplied).

Although we are asking the same of other manufacturers we will keep anything you provide in the strictest confidence.

Hoping that you could provide something to me by cob tomorrow if possible

Thanks

FOI 23-076

s47F

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Transport Policy  
Department of Infrastructure,  
Transport, Regional Development  
and Communications

t: 02 s47F | m: s47F

e:  
s47F @infrastructure.gov.au

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## **Sustainable Transport Input for FCAI meeting 21 December 2020**

### **Euro 6**

The draft Regulation Impact Statements to consider the introduction of Euro 6 for light vehicles and Euro VI for heavy vehicles were released for comment on 27 October 2020. Stakeholder comments are due by 26 February 2021.

While FCAI is keen for this matter to be resolved to provide certainty to its members, it has consistently advised that Euro 6 should not be mandated until ultra-low (10ppm) sulfur petrol is mandated in Australia. For this reason, the draft RIS proposes that the final stage of Euro 6 (known as Euro 6d) be mandated when the previously agreed changes to fuel quality standards commence on 1 July 2027.

As fuel quality mainly affects petrol vehicles, we anticipate that the states and territories will push for an earlier introduction for diesel vehicles.

#### **Possible items you may wish to raise:**

- You may wish to seek FCAI's views on whether an earlier start date is feasible for diesel vehicles. We understand that FCAI is likely to prefer a common start date for petrol and diesel vehicles. FCAI may also advise that most diesel vehicles are light commercial vehicles, which have longer model development cycles.
- You could also ask FCAI whether it would be feasible to introduce the earlier stage of Euro 6 (known as 'Euro 6b') as an interim step (for diesel vehicles) from 2023-24, as a possible compromise.

### **FCAI Voluntary Fuel Efficiency Standard**

On 24 July 2020, the FCAI announced the introduction a voluntary fuel efficiency standard for its members, which account for 99 per cent of light vehicle sales in Australia from 2020 to 2030. The standard aims to encourage vehicle manufacturers to prioritise allocating low and zero emissions vehicles, including hybrid, battery electric and hydrogen fuel cell vehicles to the Australian market. We note that some manufacturers have announced some new hybrid and electric model releases since that time.

As Australia is one of the few developed countries without a mandated fuel efficiency standard, the government may come under increasing pressure to introduce one, if manufacturers do not achieve the targets announced by the FCAI.

#### **Possible items you may wish to discuss:**

- You may wish to ask when FCAI plans to report on its member's performance for 2020 and whether it may be able to advise its results to the Department, before they are publically released.

**Archived:** Monday, 30 January 2023 3:02:23 PM

**From:** [Ashley Sanders](#)

**Mail received time:** Mon, 17 May 2021 09:29:46

**Sent:** Sun, 16 May 2021 23:29:34

**To:** s47F

**Cc:** [LANGFORD Anita](#)

**Subject:** HPE CM: Supreme Court finding - implication for ADR 82/02

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[12.05.12 - S ECI 2019 02790 - Mitsubishi Motors v Begovic - Order by Ginnane J.pdf](#); [Mitsubishi Motors Australia Ltd v Begovic \[2021\] VSC 252.pdf](#);

---

Hi s47F,

I wonder whether you're aware of the finding handed down in the Victorian Supreme Court last week relating to a dispute over the information provided on an ADR 81/02 Fuel Consumption label.

It can be downloaded in full at the following URL. <https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/vic/VSC//2021/252.html>

To summarise, the Supreme Court of Victoria found in favour of a Victorian Civil and Administrative Tribunal's finding that the applicants contravened s18 (Misleading and Deceptive conduct) despite relying on the information required (mandated) on the ADR 81/02 label. This is quite some cause for concern especially given the disclaimers contained on the label and information provided by the Commonwealth's Green Vehicle Guide website.

Could you please advise whether there are implications for the format of the ADR 81/02 label and the wording contained thereon, and for the information provided to the consumer by the Green Vehicle Guide.

Regards,

Ashley Sanders

Technical Director

Ph +61 (0) 2 6229 8222

Mob: +61 (0) 418 823 244

[ashley.sanders@fcia.com.au](mailto:ashley.sanders@fcia.com.au)



**FEDERAL CHAMBER OF AUTOMOTIVE INDUSTRIES**

LEVEL 1, 59 WENTWORTH AVENUE  
KINGSTON ACT 2604 AUSTRALIA  
P: + 61 2-6247 3811 F: + 61 2-6248 7673  
[WWW.FCAI.COM.AU](http://WWW.FCAI.COM.AU)

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s22(1)(a)(ii)

**From:** s47F  
**Sent:** Friday, 11 June 2021 5:24 PM  
**To:** s47F  
**Cc:** STAGG Paula ; Infrastructure at PMC ; s47F  
**Subject:** RE: PMO RFA [SEC=PROTECTED, CAVEAT=SH:CABINET]  
**Importance:** High

**PROTECTED//CABINET**

Hi s47F,

As promised, please see attached DISER's analysis on stakeholder views on fuel efficiency standards. I expect it will complement your advice well. Excerpt: s34

Thank you for your separate email letting us know to now expect your advice on Tuesday.

Thank you for your help today.

s47F

s47F | Adviser  
Infrastructure, Transport and Cities  
P: +61 2 s47F E: s47F @pmc.gov.au | [www.dpmc.gov.au](http://www.dpmc.gov.au)

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**From:** s47F  
**Sent:** Friday, 11 June 2021 2:00 PM  
**To:** s47F <s47F@infrastructure.gov.au>

Cc: STAGG Paula <Paula.Stagg@infrastructure.gov.au>; Infrastructure <Infrastructure@pmc.gov.au>; s47F  
<@pmc.gov.au>; s47F <@pmc.gov.au>; s47F  
<@pmc.gov.au>

**Subject:** PMO RFA [SEC=PROTECTED, CAVEAT=SH:CABINET]

**Importance:** High

**PROTECTED//CABINET**

Hi s47F ,

Thank you for your time on the phone. As discussed, s34

s47C

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Thank you s47F . I understand that both Paula and Maree are away, so we're happy to take the advice as tentative/non-exhaustive, and happy for you to signal more information required where necessary.

Kind regards,

FOI 23-076

s47F

s47F | Adviser

Infrastructure, Transport and Cities

Industry, Infrastructure and Environment Division

**Department of the Prime Minister and Cabinet** | One National Circuit, Barton ACT

P: +61 2 s47F

[@pmc.gov.au](mailto:s47F@pmc.gov.au) | [www.dpmc.gov.au](http://www.dpmc.gov.au)

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**From:** s47F [redacted]@industry.gov.au>  
**Sent:** Friday, 11 June 2021 5:09 PM  
**To:** s47F [redacted]  
**Cc:** Climate Change; s47F [redacted]; s47F [redacted]  
**Subject:** RE: Request: Analysis on stakeholder views on emissions standards [SEC=PROTECTED]  
**Attachments:** Response to Request - Analysis on stakeholder views on emissions standar....docx

Hi s47 [redacted]

See attached a response from us – I'm escaping for the weekend while I can, but happy to discuss on Tuesday.

Enjoy your long weekends ☺

s47 [redacted]

s47F [redacted]

**A/g Assistant Manager**

Transport

Technology Transition Branch | International Climate and Technology Division

**02 6243 s47F [redacted]@industry.gov.au**

**Department of Industry, Science, Energy and Resources** | [www.industry.gov.au](http://www.industry.gov.au)

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PROTECTED

**From:** s47F [redacted]  
**Sent:** Friday, 11 June 2021 2:26 PM  
**To:** s47F [redacted]  
**Cc:** Climate Change ; s47F [redacted] ; s47F [redacted] ; s47F [redacted]  
**Subject:** RE: Request: Analysis on stakeholder views on emissions standards [SEC=PROTECTED]

Hi s47 [redacted]

Happy to get something to you this afternoon – we’re shooting for COB but will update if we have any questions.

s47

PROTECTED

**From:** s47F [redacted] <[redacted]@pmc.gov.au>  
**Sent:** Friday, 11 June 2021 1:32 PM  
**To:** s47F [redacted] <[redacted]@industry.gov.au>; s47F [redacted] <[redacted]@industry.gov.au>  
**Cc:** Climate Change <s47F [redacted]@pmc.gov.au>; s47F [redacted] <[redacted]@pmc.gov.au>; s47F [redacted] <[redacted]@industry.gov.au>; s47F [redacted] <[redacted]@pmc.gov.au>  
**Subject:** Request: Analysis on stakeholder views on emissions standards [SEC=PROTECTED]

PROTECTED

Hi s47,

As discussed on the phone just now - would you able to send us through some analysis specifically on what stakeholders said during the FFS consult about emissions standards? In particular, we’d be looking for how many and which organisations mentioned emissions standards, and what they said?

Understand you will be able to get something broad (list of supportive/not supportive stakeholders and key points) by the end of today – let us know if that turns out to be an issue and we can chat again.

Thanks so much for this – and grateful if you can reply all when you send through as I’m likely ducking out a bit early today 😊

s47

s47F [redacted] | Adviser  
 Climate Change | Department of the Prime Minister and Cabinet  
 p. 02 6271 s47F [redacted] <[redacted]@pmc.gov.au>



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**Archived:** Monday, 30 January 2023 3:09:40 PM

**From:** s47F

**Mail received time:** Tue, 1 Jun 2021 09:53:42

**Sent:** Tue, 1 Jun 2021 09:53:41

**To:** s47F

**Cc:** s47F s47F

**Subject:** HPE CM: RE: Supreme Court finding - implication for ADR 82/02 [SEC=OFFICIAL:Sensitive, ACCESS=Legal-Privilege]

**Importance:** Normal

**Sensitivity:** None

OFFICIAL: Sensitive, Legal-Privilege

Hi s47F,

Further to the below, there are a couple of articles in the industry media about this case, links below.

[Australia's "misleading" fuel economy labels under fire after Supreme Court ruling](#)

- Contends that fuel rating labels compare consumption of different cars based on laboratory tests. Real world use is often much higher, prompting calls for more accurate testing methods (i.e. the AAA's proposal for real-world testing) and disclaimers.
- Notes that industry insiders are concerned about this ruling and have and "queried why Mitsubishi was the subject of the action, rather than the government agency that mandates fuel rating labels."

[How does Australia test fuel-consumption and why should it be changed?](#)

- Notes that the existing test is the NEDC test, introduced in the 80's and advises that new EU and US tests are more rigorous and better reflect the real world fuel consumption.
- Hyundai supports moving to WLTP as it better reflects the efficiency achieved in real-world conditions.

Regards

s47F

This material contains information that may be subject to legal professional privilege.

OFFICIAL: Sensitive, Legal-Privilege

**From:** s47F

**Sent:** Friday, 28 May 2021 10:39 AM

**To:** s47F

Cc: s47F ; s47F

FOI 23-076

Subject: RE: Supreme Court finding - implication for ADR 82/02 [SEC=OFFICIAL:Sensitive, ACCESS=Legal-Privilege]

OFFICIAL: Sensitive, Legal-Privilege

Hi s47F,

I've had a first look into this issue. s47C

Policy principle

The fuel consumption label for new cars at the point of sale is important for consumer information. While we acknowledge that the NEDC or newer WLTP tests may not necessarily match real world driving results (which is shown on the fuel consumption label), a lab test is the most rigorous and repeatable method to estimate fuel consumption. We understand consumers do consider and appreciate the fuel consumption label and information provided on the GVG. As s47E noted, while the ADR allows manufacturers to declare a higher value than measured in the test, it may put them at a commercial disadvantage if they unilaterally do so.

As s47E further noted, we are intending to review the labelling standard if policy approval is given to move to Euro 6, which would also include a move to the WLTP emissions test, which more accurately but still imperfectly, reflects real world driving.

Next step

s47C

Broader discussion

s47C

Thanks to s47E for the earlier advice.

Welcome your views.

Kind regards

s47E

This material contains information that may be subject to legal professional privilege.

OFFICIAL: Sensitive, Legal-Privilege

**From:** s47F <s47F@infrastructure.gov.au>  
**Sent:** Wednesday, 19 May 2021 12:26 PM  
**To:** s47F <s47F@infrastructure.gov.au>  
**Cc:** s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>  
**Subject:** FW: Supreme Court finding - implication for ADR 82/02 [SEC=OFFICIAL:Sensitive]

OFFICIAL:Sensitive

Hi s47

As discussed, here is the information provided by the FCAI in relation to an alleged false or misleading representation provided on a Fuel Consumption label as required by ADR 81/02.

The ADR requires the vehicle to be tested in a laboratory in controlled conditions specified in the ADR. These requirements are based on an international standard known as UN Regulation 101, which uses a drive cycle known as the NEDC.

While the label and GVG have a disclaimer advising actual fuel consumption may vary from the figures declared on the label due to traffic, weather and how the vehicle is used, the court appears to have ruled in favour of the applicant on the premise the label suggested the Triton he purchased in 2016 would be more efficient than the one he purchased in 2008, but his experience appears to be different. The vehicle in question was tested on the road using a portable emissions measurement system, as well as in a lab in accordance with the ADR.

As this may set a precedent for similar cases, manufacturers may have to perform additional testing to ensure the figures declared on the label are credible and would hold up in court, as well as complying with the requirements of the ADR. Some manufacturers may choose to stop selling some models in Australia if they cannot declare a figures compatible with both requirements. The ADR allows manufacturers to declare a higher value than measured in the test, but this may put them at a commercial disadvantage if they do so.

It is alleged fuel efficiency standards in other markets (particularly Europe) have encouraged manufacturers reduce their CO2 figures by utilising flexibilities permitted in the NEDC test cycle, and this has led to an increasing divergence between lab tested and on-road efficiency. The WLTP reduces these flexibilities, but does not completely eliminate them. If we were to implement a fuel efficiency standard here, this ruling may increase the risk of a fuel efficiency standard affecting consumer choice (as they need a figure compatible with the standard and with Australian Consumer Law). I note the US manages this issue by having separate tests for compliance (2 cycle lab test) and consumer information purposes (5 cycle lab test).

s47C



OFFICIAL: Sensitive

**From:** Ashley Sanders <[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)>  
**Sent:** Monday, 17 May 2021 9:30 AM  
**To:** s47F <s47F <[s47F@infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)>>  
**Cc:** LANGFORD Anita <[Anita.Langford@infrastructure.gov.au](mailto:Anita.Langford@infrastructure.gov.au)>  
**Subject:** Supreme Court finding - implication for ADR 82/02

Hi s47F

I wonder whether you're aware of the finding handed down in the Victorian Supreme Court last week relating to a dispute over the information provided on an ADR 81/02 Fuel Consumption label.

It can be downloaded in full at the following URL. <https://www.austlii.edu.au/cgi-bin/viewdoc/au/cases/vic/VSC//2021/252.html>

To summarise, the Supreme Court of Victoria found in favour of a Victorian Civil and Administrative Tribunal's finding that the applicants contravened s18 (Misleading and Deceptive conduct) despite relying on the information required (mandated) on the ADR 81/02 label. This is quite some cause for concern especially given the disclaimers contained on the label and information provided by the Commonwealth's Green Vehicle Guide website.

Could you please advise whether there are implications for the format of the ADR 81/02 label and the wording contained thereon, and for the information provided to the consumer by the Green Vehicle Guide.

Regards,

Ashley Sanders

Technical Director

Ph +61 (0) 2 6229 8222

Mob: +61 (0) 418 823 244

[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)



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Archived: Monday, 30 January 2023 3:03:29 PM

From: s47F

Mail received time: Wed, 14 Jul 2021 11:38:30

Sent: Wed, 14 Jul 2021 11:38:29

To: [LANGFORD Anita](#) s47F s47F s47F

Cc: [STAGG Paula](#)

Subject: HPE CM: FW: Mis(labelling): Manufacturer and dealer liability for misrepresentations [SEC=OFFICIAL]

Importance: Normal

Sensitivity: None

OFFICIAL

Hi All,

Please see the advice James Voortman mentioned in this morning's meeting below.

Regards

s47F

OFFICIAL

From: James Voortman

Sent: Wednesday, 14 July 2021 11:00 AM

To: s47F

Subject: FW: Mis(labelling): Manufacturer and dealer liability for misrepresentations

Hi s47F,

Thanks for the meeting today – see below the advice I mentioned.

Kind regards

James

**James Voortman**

CHIEF EXECUTIVE OFFICER

E [jvoortman@aada.asn.au](mailto:jvoortman@aada.asn.au)

M s47F

P +61 2 5105 1022

L3, 10 National Circuit, Barton ACT 2600

PO Box 4409 Kingston ACT 2604



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\itap4



\itap3

\itap8AUTOMOTIVE

\itap8Tuesday, 1 June 2021

## \itap5 (Mis)labelling: manufacturer and dealer liable for misrepresentations

### \itap8Key points

- Dealer & Mitsubishi found to have misled consumer based on inaccurate fuel consumption label;
- Dealers & manufacturers may be exposed to class actions; and
- Dealers need to consider their indemnity position against manufacturers if claims are made.

### \itap7 Background

\itap7In what may prove to be a significant decision for the automotive industry, on 12 May 2021 the Supreme Court of Victoria upheld a decision that fuel consumption figures displayed on a brand-new vehicle contravened the Australian Consumer Law (ACL) on the basis that the figures were 'misleading or deceptive'.

### \itap7Significance

Although the Court's findings were limited to the 2016 Mitsubishi Triton purchased by Mr Begovic, the case may have far-reaching implications for the thousands of light vehicles sold in Australia displaying a Fuel Consumption Label (as has been required by law since 2001).

The case also demonstrates key factors impacting on exposure to liability for misleading or deceptive conduct within the automotive industry. These include that:

- liability for misleading or deceptive conduct can apply to *both* manufacturers and dealers;
- section 18 of the ACL does not require an intent to mislead or deceive; and
- the ACL applies to representations whether or not they are required under law.

## VCAT's findings

In May 2019, the Victorian Civil and Administrative Tribunal (**VCAT**) found that the actual fuel consumption of the 2016 Triton purchased by Mr Begovic was 'significantly higher' than the fuel consumption figures displayed on the vehicle as was required by law. Expert evidence testing under Australian Design Rules standards showed a 27.6% higher actual fuel consumption (on average between the combined Urban and Extra-Urban portions of the test). VCAT accepted the expert evidence that the variation was 'unusual and excessive'. Accordingly, VCAT found that both Mitsubishi Motors Australia Pty Ltd and the Mitsubishi dealer (collectively, **Mitsubishi**) contravened the section 18 of the ACL by engaging in misleading or deceptive conduct.

Additionally, VCAT found that the fuel figures contravened consumer guarantees that the Triton was of 'acceptable quality' and would 'correspond with [its] description' in contravention of sections 54 and 56 of the ACL respectively.

## Questions on appeal

Mitsubishi's appeal to the Supreme Court of Victoria was limited to questions of law. This meant that VCAT's findings that the actual fuel usage of the 2016 Triton was excessively higher than the figures on the label, which has proven most significant for the industry, was not open to challenge. Rather, Mitsubishi's only avenue for appeal was that VCAT made a mistake in the way it applied the law to Mr Begovic's case.

## Supreme Court decision

The Supreme Court of Victoria upheld VCAT's decision that the fuel consumption figures were misleading or deceptive in contravention of section 18 of the ACL. In coming to this conclusion, the Court commented that:

- a reasonable consumer would...expect to be able to rely on the fuel consumption figures as a form of baseline from which an adjustment could be made to reflect real world driving conditions; and
- decisions to purchase a vehicle may often be made in the dealer's showroom without the opportunity to consult information available on a website.

The Court however rejected VCAT's finding that Mitsubishi had contravened the consumer guarantees under the ACL. The Court held that since VCAT was not satisfied that Mr Begovic's 2016 Triton was 'defective' it was legally incorrect to conclude that the vehicle was not of 'acceptable quality' in contravention of section 54 of the ACL.

Finally, the Court also rejected VCAT's finding that the Mitsubishi contravened section 56 of the ACL as the 2016 Triton did not 'correspond with the description'. The Court's decision was based on the fact that Mitsubishi was not given a proper opportunity to address this issue before VCAT.

## Remedies

The Supreme Court is set to determine the remedy for Mitsubishi's contravention of section 18 of the ACL for misleading or deceptive conduct (along with costs) at a later date.

The available remedies for such a breach include an order allowing Mr Begovic to reject the 2016 Triton and obtain a refund of his purchase price. Importantly, VCAT held that there was likely an indemnity arrangement between the dealer and Mitsubishi and if that was not the case, the dealer would nonetheless not be prevented from making a claim against Mitsubishi Motors.

There may be a number of class actions that follow from this decision if it can be established that a particular model vehicle had 'significantly higher' fuel consumption figures than those displayed on the vehicle. If any consumer claim is brought against a dealer, the dealer should investigate its indemnity position against the manufacturer.

FOI 23-076  
vitap7The reported Supreme Court decision can be accessed at this [link](#).

vitap7This article was written by Evan Stents, Partner and Adam Den, Law Graduate.

vitap7For further information please contact the authoring partner:



**Evan Stents**  
**Partner**

Phone: +61 3 8644 3509  
Email: [estents@hwle.com.au](mailto:estents@hwle.com.au)

vitap7Or contact any member of our Automotive Group:



**John Caravousanos**  
**Partner**

Phone: +61 7 3169 4792  
Email: [jcaravousanos@hwle.com.au](mailto:jcaravousanos@hwle.com.au)



**Andrew Galvin**  
**Partner**

Phone: +61 2 9334 8502  
Email: [agalvin@hwle.com.au](mailto:agalvin@hwle.com.au)



**Thomas Kim**  
**Partner**

Phone: +61 3 8644 3532  
Email: [tkim@hwle.com.au](mailto:tkim@hwle.com.au)



**Sean O'Donnell**  
**Partner**

Phone: +61 2 9334 8451  
Email: [sodonnell@hwle.com.au](mailto:sodonnell@hwle.com.au)



**Gail Owen**  
**Partner**

Phone: +61 3 8644 3504  
Email: [gowen@hwle.com.au](mailto:gowen@hwle.com.au)



**Justin Pasa**  
**Partner**

Phone: +61 3 8644 3552  
Email: [jpasa@hwle.com.au](mailto:jpasa@hwle.com.au)



**Derek Sutherland**  
**Partner**

Phone: +61 7 3169 4754  
Email: [dsutherland@hwle.com.au](mailto:dsutherland@hwle.com.au)



**Maria Townsend**  
**Partner**

Phone: +61 2 9334 8672  
Email: [mtownsend@hwle.com.au](mailto:mtownsend@hwle.com.au)

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**Archived:** Monday, 30 January 2023 3:04:38 PM

**From:** s47F

**Mail received time:** Thu, 4 Nov 2021 12:19:06

**Sent:** Thu, 4 Nov 2021 12:19:04

**To:** s47F

**Cc:** s47F s47F s47F s47F

**Subject:** Action (by COB Wednesday): Information on Opportunities for Emissions Reforms [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[21#366397DOC Presentation - Vehicle Emissions in Australia.pptx](#); [DITRDC project to map national transport bodies DRAFT - case study.pptx](#);

---

OFFICIAL

Hi s47F

Thanks for your question about light vehicle emission standards. Our team is currently considering the introduction of the Euro 6 noxious emission standard for light vehicles. While this standard does not regulate CO<sub>2</sub> (it regulates noxious emissions that cause smog and health problems), it also adopts a new test for measuring fuel consumption and emissions. I have attached a presentation my team recently gave to Diane Brown in relation to emissions that may be help to explain the different emissions standards that apply to vehicles in the international context.

For completeness, it is worth noting that a number of think tanks and other stakeholders, including the Grattan Institute and Bloomberg New Energy Finance consider a fuel efficiency/CO<sub>2</sub> standard to be the most important and effective supply side measure to address vehicle CO<sub>2</sub> emissions, with subsidies for EVs (to eliminate the purchase price gap with internal combustion engine vehicles) being a critical demand side measure. In 2019, the Prime Minister ruled out adopting a fuel efficiency standard in Australia due to concerns it would increase the cost of cars and/or reduce the range of vehicles available to consumers.

The Department issued a consultation RIS on a mandatory fuel efficiency/CO<sub>2</sub> standard in 2016, which estimated a benefit-cost ratio of between 1.86 and 1.97, and net benefits of between \$5.8 billion and \$13.9 billion. The Department has provided advice on options for implement a fuel efficiency/CO<sub>2</sub> emissions on a number of occasions over the last 10 years. These standards apply to 85 per cent of all new vehicles sold including most major vehicle markets in Europe, Asia and America. These standards set a fleet average fuel efficiency/CO<sub>2</sub> requirement for vehicles supplied by a manufacturer which becomes more stringent over time.

Manufacturers and motoring groups support the concept of a fuel efficiency standard, but pushed back when we last consulted on a proposal in 2016-17, as they considered what was proposed to be too stringent (it would have required a 40% improvement by 2025). Australian representatives of vehicle manufacturers (Volkswagen Australia and Hyundai Australia) have publicly stated they are unable to acquire popular EV models for Australia because manufacturers need to prioritise limited supplies of these vehicles for markets with CO<sub>2</sub> standards to help meet the requirements of the standard.

The peak body representing vehicle manufacturers – the Federal Chamber of Automotive Industries (FCAI) has adopted a voluntary standard for its members and has encourage the Government to adopt its model as a mandatory standard. Their model has a number of concessions built into it and the only penalties are reputational, so it is not clear this would achieve the levels of

reduction required to meet our 2030 or 2050 CO<sub>2</sub> reduction targets. Like the FCAI model, the standards adopted in Europe and North America, adjust requirements by the mass or size of vehicles sold (so a manufacturer that mainly sells larger vehicles does not have to sell smaller vehicles). The latest standards adopted in these markets will effectively require most new vehicles to be hybrid or electric.

If a stringent fuel efficiency standard were to be reconsidered in the future, complementary measures to support electric vehicle uptake would increase the prospects of the measure receiving support from industry.

The Government announced a range of measures in the 2020-21 Budget to support the uptake of low and zero emissions vehicles, including \$74.5 million for the Future Fuels Package, through the Industry, Science, Energy and Resources Portfolio.

This complements a range of other measures already in place:

- A luxury car tax concession rate for fuel efficient vehicles. The 2021-22 threshold of \$79,659 is \$10,507 higher than for other vehicles. This effectively provides a tax concession of up to \$3,152.
- Up to \$1.1 billion in financing through the Clean Energy Finance Corporation (CEFC) to assist businesses to invest in low and zero emission vehicles.
- ARENA has provided \$21 million to Evie Networks and Chargefox Pty Ltd for ultra-fast charging infrastructure on the national land transport network.
- \$25 million for the Future Battery Industries Cooperative Research Centre.

*[Note: CEFC, ARENA and the Cooperative Research Centre sit within the Industry, Science, Energy and Resources portfolio]*

- The Green Vehicle Guide website, which helps consumers to consider more efficient vehicles.

There are a range of additional measures that could be taken to increase electric vehicle uptake. These measures would need to be progressed across a number of portfolios, and many were canvassed in the report of the Senate Select Committee on Electric Vehicles and will be addressed in the Governments response to the committee's report.

I have also attached a copy of the national transport body mapping work we commissioned earlier this year, noting the work needs to be finalised by ground truthing it with each of the organisations covered. We are planning more work in this space to go more deeply into the work programs and governance of these organisations and to look at possible gaps and areas of overlap.

Regards

s47F

Director • Sustainable Transport Section/Land Transport Policy Branch • Surface Transport Policy Division

s47F [infrastructure.gov.au](https://infrastructure.gov.au)

P +61 2 s47F • M s47F

GPO Box 594 Canberra, ACT 2601

*My pronouns: she/her*

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I would like to acknowledge the traditional custodians of this land on which we live, work and live. FOI 23-076

I recognise and respect their continuing connection to the land, waters and communities.

I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.

---

**From:** s47F <[redacted]@infrastructure.gov.au>

**Sent:** Monday, 1 November 2021 5:15 PM

**To:** s47F <[redacted]> <[redacted]@infrastructure.gov.au>

**Cc:** s47F <[redacted]@infrastructure.gov.au>

**Subject:** Action (by COB Wednesday): Information on Opportunities for Emissions Reforms [SEC=OFFICIAL]

OFFICIAL

Hi s47F,

I'm contacting you to ask if your team might be able to provide some short, high-level information on potential reforms to emissions standards for light vehicles by **COB Wednesday**. This request is linked to the project s47F is leading on mapping the future opportunities for reform within land transport policy in the Division. More information has been included below.

Do let me know if the deadline can't be met – I'd be happy to push it out a bit if you guys are flat out!

### Background

As Paula mentioned the other day, Maree has asked s47F to work on a project to:

- map the land transport ecosystem (current reforms, linkages, responsibilities, impacts and timeframes for delivery).
- identify opportunities for further reforms and actions that could be undertaken in the future.
- develop a strategic narrative that brings it all together.

A key aim of this work is to inform future incoming government briefs and we expect some major themes to emerge that include digitalisation initiatives/opportunities, areas of skills gaps/reskilling required and the impact on the regions.

As of this week, I have been seconded to this project.

### Key Ask

Paula mentioned that emissions standards for light vehicles could be an area for further reforms in the future. We'd like to understand the a bit more about the topic and so I was wondering whether you might send through some high-level information on this topic (plus any other reforms you think relevant).

It would be great if the information could cover::

- Potential timeframes (such as there might be) and impacts of these reforms (e.g. any impact analysis or expected outcomes)
- Any potential linkages into other reforms the Commonwealth or DITRDC is undertaking.

Cheers,  
s47F

s47F

E s47F @infrastructure.gov.au P +61 2 s47F

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*I recognise and respect their continuing connection to the land, waters and communities.*

*I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

*I would like to acknowledge the traditional custodians of this land on which we meet, work and live.*

*I recognise and respect their continuing connection to the land, waters and communities.*

*I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

**OFFICIAL**

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Australian Government

Department of Infrastructure, Transport,  
Regional Development and Communications

# Vehicle Emissions in Australia

Presented by Sustainable Transport Team, Surface Transport Policy Division

August 2021

# Two types of vehicle emissions

## Noxious emissions

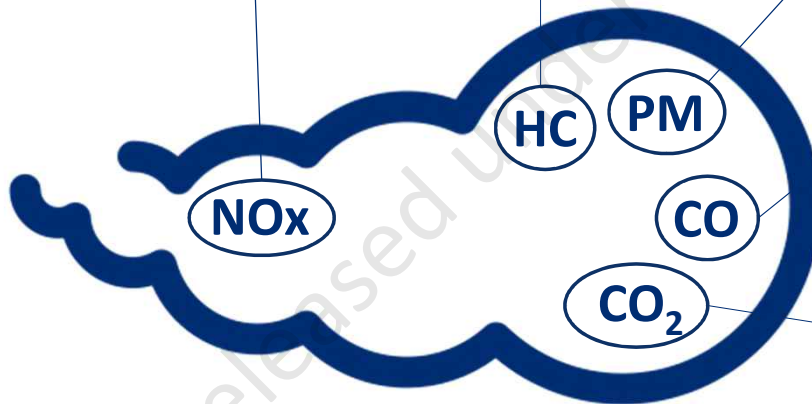
- regulated by Euro 5/V (current, through the ADRs) and Euro 6/VI (proposed)
- cause smog and impact human health - \$9.2b and 620 deaths per annum<sup>1</sup>
- caused by imperfect combustion

**Hydrocarbons:** associated with asthma; lung disease; cancer

**Carbon monoxide:** can exacerbate heart disease

**Oxides of Nitrogen:** associated with lung cancer; emphysema; bronchitis; heart disease. Diesel vehicles generally produce more NOx than petrol vehicles.

**Particulate matter:** associated with cancer; heart disease; pneumonia; diabetes. Diesel vehicles generally produce more PM than petrol vehicles.



## Greenhouse gas emissions

- contribute to climate change
- not regulated in Australia
- consequence of burning fuel – lower fuel consumption means lower CO<sub>2</sub> emissions

**Carbon dioxide:** driver of climate change  
**Other vehicle greenhouse gas emissions:** air conditioning refrigerant – highly potent greenhouse gas

1. Source: Light Vehicle Emissions for Cleaner Air RIS. Economic cost is 2020 estimate, death toll is 2015 estimate

# Tightening regulation of noxious emissions standards

## Current state of play

- Australia mandates the international emissions standard Euro 5/V. Considering moving to Euro 6/VI.
- 80% of the global vehicle market mandates Euro 6/VI standards, and many are considering Euro 7/VII.

## Key changes from Euro 5/V to Euro 6/VI

- Euro 6/VI imposes more stringent requirements for oxides of nitrogen, particulate emissions and on-board emissions monitoring.
- Euro 6/VI requires more rigorous laboratory tests including on-road emissions testing.
  - This aims to prevent vehicles carrying equipment which disables emissions controls on the road.

## Heavy vehicles

- Equipment required to meet Euro VI adds up to 300kg to a heavy vehicle – reducing the amount of freight it can legally carry.
- Industry want higher vehicle mass and width limits to offset additional weight before it supports Euro VI.
- The NHVR and the Department (VSPP branch) are consulting on options to increase mass and width limits.
  - States and territories want an earlier introduction of Euro VI, but have historically resisted mass and width changes due to road wear and safety concerns.

## How do emissions standards and fuel quality fit together?

### Fuel quality (regulated by DISER)

- Establishes the minimum standards for fuel in Australia.
- Current issue is Australia permits high levels of sulfur and aromatics in fuel – the highest in the OECD.
- Newer vehicle technology (which reduces emissions) is incompatible with Australia's current fuel.

### Addressing emissions first requires improving fuel quality

- Government has agreed to tighten fuel quality standards, and at the same time help fund major infrastructure upgrades at Australia's two domestic refineries to enable them to meet the new fuel quality standards (for sulfur) by the end of 2024 (led by DISER).
- Further work is needed to reduce aromatics levels to support the latest vehicle technology. This presents additional technical and regulatory challenges.
- DITRDC supporting DISER's aromatics review which aims to develop a Euro 6 compatible fuel standard for Australia.

## Current situation in Australia – CO<sub>2</sub>

### No fuel efficiency or CO<sub>2</sub> requirements in Australia

- A fuel efficiency standard sets a limit for the average CO<sub>2</sub> emissions per kilometre for all vehicles sold by a manufacturer.
- A fuel efficiency standard was ruled out by the Government in the 2019 election campaign.
- Over 80 per cent of the global market have adopted fuel efficiency or CO<sub>2</sub> standards, including North America, Europe, Japan, Korea, China and India. New Zealand is developing a standard to take effect in 2022-23.
  - Japan and Europe will require fuel efficiency improvements of over 30 per cent in the next 10 years.
- In addition, a growing number of countries and manufacturers plan to stop the sale of petrol and diesel vehicles over the next 10 – 15 years.

### Existing measures encourage low emission vehicles in Australia

- Fuel consumption label and Green Vehicle Guide website (administered by DITRDC).
- Luxury car tax concession for fuel efficient vehicles.
- Future Fuels Strategy and Fund - ARENA investing in charging infrastructure, local EV manufacturing etc.
- State and territory concessions or subsidies for EV purchases – typically stamp duty and/or registration exemption, government fleet initiatives, cash rebates.

**Archived:** Monday, 30 January 2023 3:10:20 PM

**From:** s47F

**Mail received time:** Tue, 15 Feb 2022 17:34:46

**Sent:** Tue, 15 Feb 2022 17:34:45

**To:** s47F

**Cc:** s47F s47F

**Subject:** Meeting brief - FCAI Director of Policy and Advocacy.docx [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[Meeting brief - FCAI Director of Policy and Advocacy.docx](#);

OFFICIAL

Hi s47F,

Please see attached for your review a meeting brief for Catherine for the meeting with Matt Hobbs from the FCAI. The meeting is Thursday afternoon.

I think it's a little long, but the meeting could cover CO2, Euro 6/fuel standards and the APEC AD. The OFTT will seek to meet the FCAI for 30 minutes prior to our meeting to discuss connected and autonomous vehicle policy issues.

Thanks to s47F for the Euro 6 input.

Kind regards

s47F

s47F

Assistant Director • Sustainable Transport Section • Sustainable Transport and Maritime Safety Review

s47F [infrastructure.gov.au](https://infrastructure.gov.au)

P +61 2 s47F

GPO Box 594 Canberra, ACT 2601

*My pronouns: he/him*

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*The department proudly acknowledges the Traditional Owners and Custodians of Australia, and their continuing connections to the land, waters and communities. We pay our respects to them and to their Elders past, present and emerging.*

OFFICIAL



**Meeting brief****Meeting with:**

- Mr Matthew Hobbs, FCAI Director of Policy and Advocacy (in person)
- s47F Director, Sustainable Transport Section
- s47 s47F Assistant Director, Sustainable Transport Section

**What they want**

- Mr Hobbs wishes to discuss work the FCAI is doing to summarise and understand its members plans to transition to EV power and other countries approaches to EV support policy.
- Mr Hobbs may also wish to discuss work towards a government decision on Euro 6 and attendance at the APEC Automotive Dialogue.

**What we want**

- To understand the initial results of the FCAI's work on CO2 emissions in the light vehicle sector.

**Key points****CO2 standard/EV work**

- Mandatory fuel efficiency (CO2) standards apply in most of the developed world, including the EU, UK, US and Japan. The international energy agency estimates that approximately 85% of all vehicles sold are covered by such a standard.
- Stakeholders consider a CO2 standard to be a strong driver for manufacturers to supply EVs to a market. Volkswagen Australia has publicly stated the reason it can not obtain in-demand EV models for Australia is the lack of a CO2 standard.
- The FCAI has implemented a voluntary CO2 standard for its members which seeks to address the model availability issue. Mr Hobbs advised that without a government mandated scheme manufacturers will continue not to prioritise the Australian market.
  - For example Mr Hobbs advised that in New Zealand, the CO2 standard generates \$8000 worth of credits that can be sold. This is in addition to an \$8000 incentive.
- The FCAI's voluntary CO2 standard largely mirrors the design of comparable international schemes, but with more modest targets, consistent with higher baseline emissions in Australia. The FCAI has publicly stated it would welcome government adopting this scheme.
- In a meeting with Mr Hobbs on 23 November 2021 in which this was discussed, Paula Stagg advised Mr Hobbs that the government's position is clear – the Prime Minister ruled out a CO2 standard in 2019 and reiterated that position in parliament in late 2021.
  - Paula further advised that as Officials, we monitor domestic and international policy developments, stakeholder views, including on CO2 standards, and can receive information undertaken outside government, but cannot commission any work on this policy option.
- The FCAI will review the CO2 standard this year and Mr Hobbs advised some members fully support the voluntary standard, others support it but disagree with the design and others do not support it.

- Mr Hobbs advised that the FCAI has already commenced work with a major consultancy to compile the technology statements from all the major vehicle manufacturers, to understand their plans to switch to electric propulsion. FCAI intends to share these with us.

## Euro 6

- In our previous meeting with Mr Hobbs, he advised the FCAI has strong views about the fuel standards required before Euro 6 can be mandated in Australia.
  - In response to the consultation RIS on Euro 6, stakeholders advised fuel quality standards in Australia need to be improved before Euro 6 can be mandated. Of particular concern are high levels of **sulphur** and **aromatics** in Australian petrol due to the risk of damage to the advanced emission control technologies required to meet Euro 6.
  - Government has agreed to support the two remaining domestic refiners to undertake upgrades to reduce **sulphur** limits in Australian fuel from 50ppm to less than 10ppm. DISER is leading on this and we understand this is well underway, targeting a 2024 implementation.
  - Reducing **aromatics** levels are considerably more complex and stakeholders advice about the issue is conflicted.
  - DISER advises the FCAI continues to claim Australia's fuel must meet the [Worldwide Fuel Charter](#) (i.e. low aromatics levels) to avoid potential operability issues. DISER advises other stakeholders suggest instead that high aromatics levels in fuel may cause higher emissions levels in regulatory tests. Some manufacturers and the FCAI's New Zealand counterpart (Motoring Industry Association) advise Australia's aromatics levels are not expected to cause operability issues.
  - Reducing aromatics levels also reduces the octane (RON) rating of fuel. Modern, high efficiency engines generally need higher octane fuel (95 RON rather than 91 RON), however manufacturers prefer to sell vehicles which can run on cheap fuel.
- It is DISERs responsibility to develop a fuel standard to enable Euro 6 to be implemented in Australia. Once that standard is developed, we can finalise work to get a government decision on Euro 6.
- DISER is continuing to consider options to reduce aromatics. We are working closely with DISER to progress both matters, as the benefits of Euro 6 and fuel quality are interdependent.
- Mr Hobbs expressed a concern that Australia having different fuel standards to international markets might require vehicles to undergo emissions testing just for the Australian market, at about \$500,000 per test.
- Our intent is to adopt UN regulations that do not create this issue. If a policy decision is made to adopt Euro 6d, we propose to adopt the relevant UN vehicle regulations (UN Regulation 154 and the forthcoming UN Regulation for RDE) which specifies the use of test fuels, not market fuels.
- The forthcoming UN Regulation for the on-road real driving emissions (RDE) test will also allow the use of test fuels. Vehicles would therefore not be expected to meet the RDE requirements on Australian market fuels to meet the proposed ADR requirements. We do however, recognise manufacturers may want to do further testing to ensure their customers are happy.

APEC AD

- In late 2021, Mr Hobbs attended the APEC Automotive Dialogue on EV policy and technology as a guest. Sustainable Transport Section, Office of Future Transport Technology and DISER also attended.
- Mr Hobbs has asked to be added to relevant mailing lists for an upcoming meeting of the AD in Thailand and may travel to attend the meeting in person. We are happy for Mr Hobbs to be added to these mailing lists and do not have a view on his in-person attendance. However due to a current restructure of the leadership of the APEC coordination role, it is not settled who at DITRDC will lead on the APEC AD. The APEC AD terms of reference specify its about “cooperative efforts to foster the growth and development of the regional auto industry”.
- We have not decided whether and how attendance will be managed for the APEC AD meeting. Sustainable Transport Section generally has limited visibility of the APEC AD as it deals with other parts of the automotive industry.

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**Archived:** Monday, 30 January 2023 3:10:35 PM

**From:** [Ashley Sanders](#)

**Mail received time:** Thu, 10 Mar 2022 16:16:35

**Sent:** Thu, 10 Mar 2022 05:16:28

**To:** [GvG](#) s47F

**Cc:** s47F

s47F

**Subject:** RE: Green Vehicle Guide update [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

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Hi s47F,

Thank you for reaching out. FCAI are definitely keen to work with the Department on the updated GVG and its communications strategy.

Firstly, I'd like to involve both Peter Griffin and Doug Wyllie from the FCAI with the Comms work. Their email addresses are as follows.

[\fi720Peter.Griffin@fcai.com.au](mailto:\fi720Peter.Griffin@fcai.com.au)

[\fi720Doug.Wyllie@fcai.com.au](mailto:\fi720Doug.Wyllie@fcai.com.au)

Then I'd like to offer the FCAI Technical Committee's Fuel and Emissions Working Group as technical experts who may be able to assist with the development of the website. They are the conduit to the wider FCAI Technical Committee for all matters to do with emissions regulation and fuel quality standards. Ideally, this involvement would be earlier than a draft or beta version of the website, but more at the concept stage. This will ensure that the user experience from industry's point of view, particularly in inputting and managing OEM data is taken into account. Please let me know if this is possible.

[\fi720s47F@toyota.com.au](mailto:\fi720s47F@toyota.com.au);

[\fi720s47F@toyota.com.au](mailto:\fi720s47F@toyota.com.au);

[\fi720s47F@ford.com](mailto:\fi720s47F@ford.com);

[\fi720s47F@daimler.com](mailto:\fi720s47F@daimler.com);

[\fi720s47F@volkswagen.com.au](mailto:\fi720s47F@volkswagen.com.au)

Please don't hesitate to contact me if you have any questions or concerns with our proposal.

Regards,

Ashley Sanders

Technical Director

Ph +61 (0) 2 6229 8222

[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)



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**From:** GvG  
**Sent:** Thursday, 10 March 2022 11:15 AM  
**To:** Ashley Sanders  
**Subject:** Green Vehicle Guide update [SEC=OFFICIAL]

**OFFICIAL**

Dear Ashley

As you may be aware, the Department of Infrastructure, Transport, Regional Development and Communications is working on an update to Green Vehicle Guide website to support the Government's Future Fuels and Vehicle Strategy. We are planning to seek your feedback on a draft/beta version of the updated website in the coming months.

The Department is also keen to work with key stakeholders such as yourself to maximise consumer awareness of the redeveloped website and ensure it has the greatest opportunity for success. We have engaged social and market research agency, Social Deck to work with our stakeholders and would like to invite you to participate in the development of our communication strategy .

If you would like to be involved in this work, please let us know by return email, so the Social Deck can make contact with you to discuss this further. If you have a colleague who may be more appropriate to involve in this work, please let me know and we will be happy to make arrangements with them.

If you have any queries, please let me know.

Regards

s47F

**Green Vehicle Guide Team**

**Department of Infrastructure, Transport, Regional Development and Communications**

P 02 s47F

E [gvg@infrastructure.gov.au](mailto:gvg@infrastructure.gov.au)

**OFFICIAL**

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FOI 23-076

**Archived:** Monday, 30 January 2023 3:10:49 PM**From:** s47F**Mail received time:** Wed, 20 Apr 2022 14:10:50**Sent:** Wed, 20 Apr 2022 14:10:50**To:** s47F ; s47F**Subject:** RE: Toyota x Office of Future Transport - additional discussion items and attendees list [SEC=OFFICIAL]**Importance:** Normal**Sensitivity:** None

OFFICIAL

Thanks s47F

The distinction is what I thought it would be, but definitely good to clarify.

We are more focussed in the product side actions (i.e. an electric or plug in hybrid Hilux would make my life much easier), but the production side are of ongoing interest. For example, VW is making significant investment to decarbonise its entire lifecycle for the ID range of electric vehicles. I look forward to hearing from s47F what Toyota says about the same thing.

Kind regards

s47F

OFFICIAL

**From:** s47F**Sent:** Wednesday, 20 April 2022 2:04 PM**To:** s47F**Cc:** s47F ; MAKIN Mike ; s47F ; s47F ; s47F ; s47F ; s47F**Subject:** RE: Toyota x Office of Future Transport - additional discussion items and attendees list [SEC=OFFICIAL]

OFFICIAL

Hi s47F – sounds good, and thank you for being flexible!

I've extended the meeting room booking to allow for the longer discussion.

Cheers,

s47F

OFFICIAL

**From:** s47F <[s47F@toyota.com.au](mailto:s47F@toyota.com.au)>**Sent:** Wednesday, 20 April 2022 1:53 PM

To: s47F [redacted] <[redacted]@infrastructure.gov.au>  
Cc: s47F [redacted] <[redacted]@toyota.com.au>; MAKIN Mike <Mike.Makin@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>

FOI 23-076

**Subject:** RE: Toyota x Office of Future Transport - additional discussion items and attendees list [SEC=OFFICIAL]  
[SEC=OFFICIAL]

PROTECTED

Hi s47F

Absolutely, we can cover the connected and automated vehicles / technology areas as well.

Given the breadth of topics and the number of attendees it may be worth going for a slightly longer meeting to cover all the areas or it might be worth splitting the meeting in two to cover the different areas? Perhaps a 45 minute meeting would suit?

As to the rationale for separating the points of electrification and hydrogen versus decarbonisation, we consider electrification and hydrogen as our product side actions (i.e. vehicles), while decarbonisation refers to decarbonisation of our operations (plant, facilities etc.).

Best regards,

s47F [redacted]

Senior External Affairs Specialist

Corporate Services

**Toyota Australia**

Boonwurrung Country

155 Bertie Street, Port Melbourne, VIC 3207

PO Box 2006, Melbourne, VIC 3001

s47F [redacted]

E s47F [redacted] <[redacted]@toyota.com.au> W [www.toyota.com.au](http://www.toyota.com.au)

Toyota Australia acknowledges the Traditional Owners & Custodians of lands throughout Australia. We pay our respects to Elders past, present and emerging.



AUSTRALIAN NETWORK ON DISABILITY

From: s47F [redacted] <[redacted]@infrastructure.gov.au>

Sent: Wednesday, 20 April 2022 8:01 AM

To: s47F [redacted] <[redacted]@toyota.com.au>

Cc: s47F [redacted] <[redacted]@toyota.com.au>; MAKIN Mike <Mike.Makin@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>

<Mike.Makin@infrastructure.gov.au>; A s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>; s47F [redacted] <[redacted]@infrastructure.gov.au>

**Subject:** RE: Toyota x Office of Future Transport - additional discussion items and attendees list [SEC=OFFICIAL]  
[SEC=OFFICIAL]



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OFFICIAL

Hi s47  
F

In addition to the items you've outlined in the meeting invitation, if time permits we'd also be interested in hearing about any work in the AVs/CAVs sphere that Toyota is doing, including in the areas of CAV/AV trials, vehicle cyber security and in-service modifications.

Our Sustainable Transport colleagues are also interested in understanding the rationale for the distinction between item 2 (electrification and hydrogen) and item 3 (decarbonisation), noting that electrification would usually be the dominant piece of a decarbonisation agenda – any advice you can provide ahead of the meeting would greatly assist their participation in the discussions.

The DITRDC attendees will be the three Directors from the Office of Future Transport Technology – myself (Transport Technology, Policy and Research), s47F (Connected and Automated Vehicle Policy and Partnerships) and s47F (Automated Vehicle Regulation), and senior staff from our teams. s47F will attend from the Sustainable Transport team.

Our offices are at 111 Alinga Street, Canberra City. When you arrive, please call my mobile s47F and I, or one of my team, will meet you in the foyer to arrange sign-ins and escort you and s47F to the meeting room.

Looking forward to seeing you next week. In the meantime, please don't hesitate to call if any queries, or if you'd like to discuss.

Cheers,

s4  
7F

-----Original Appointment-----

**From:** s47F

**Sent:** Wednesday, 13 April 2022 3:07 PM

**To:** s47F

**Cc:** s47F MAKIN Mike; s47F s47F

**Subject:** Accepted: Toyota x Office of Future Transport [SEC=OFFICIAL]

**When:** Wednesday, 27 April 2022 11:00 AM-11:30 AM (UTC+10:00) Canberra, Melbourne, Sydney.

**Where:** Microsoft Teams Meeting

OFFICIAL

Hi s47  
F

Thank you for your call, and looking forward to meeting you and your colleagues on the 27<sup>th</sup>.

When you arrive, please call my mobile on s47F and I'll meet you at reception to sign you in and escort you to the meeting room.

Will also come back to you shortly with any additional issues we'd like to touch base on.

Cheers,

s47F

s47F

Director • Transport Technology Policy and Research / Office of Future Transport Technology • Transport Market Reform and Technology Branch • Surface Transport Policy Division

s47F [@infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)

P +61 2 s47F • M +61 s47F

GPO Box 594 Canberra, ACT 2601

**Department of Infrastructure, Transport, Regional Development and Communications**  
**CONNECTING AUSTRALIANS • ENRICHING COMMUNITIES • EMPOWERING REGIONS**



-----Original Appointment-----

**From:** s47F [@toyota.com.au](mailto:s47F@toyota.com.au)

**Sent:** Wednesday, 13 April 2022 2:58 PM

**To:** s47F s47F

**Subject:** Toyota x Office of Future Transport

**When:** Wednesday, 27 April 2022 11:00 AM-11:30 AM (UTC+10:00) Canberra, Melbourne, Sydney.

**Where:** Microsoft Teams Meeting

Hi s47F

Thank you very much for your time earlier, as always very much appreciated.

Looking forward to meeting with you and your team to discuss:

1. Toyota and C-ITS
2. Electrification and Hydrogen
3. Decarbonisation

I've included a Teams link, just in case it's necessary.

Please invite your colleagues as we discussed, and if you need to switch to another format to involve your team member based in Albury, please feel free to do so.

Please let me know if there are any requirements we may need to meet for a face to face meeting in light of covid etc.

Best regards,

s47F

---

Microsoft Teams meeting

**Join on your computer or mobile app**

FOI 23-076

[Click here to join the meeting](#)

**Join with a video conferencing device**

[762926880@t.plcm.vc](mailto:762926880@t.plcm.vc)

Video Conference ID: 132 685 872 0

[Alternate VTC instructions](#)

**Or call in (audio only)**

[+61 2 9158 7123](tel:+61291587123), [956162128](tel:+612956162128)# Australia, Sydney

Phone Conference ID: 956 162 128#

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27 4 22

Toyota PFTT

s47F

- AV reg team

s47F

- CAU policy & partnerships

- support dev of AV regulation
- OTA updates, after market recall

- Cybersecurity, dark money
- Int'l outreach - form of road traffic safety, APEC TPTW

s47F

- design copy

- CITS trials with gov

### Electrification

- 2050 challenge - whole vehicle life, source of energy, recycling end of life

- business model - site in Melb

- 4.4 Mw of generation

- heralded hydrogen as sole <sup>sole</sup> energy

- ~~broader~~ test bed

- Reptiles in Melb 350/700kw

- <sup>fuel</sup> cell & wA mobile

- PHEV/HEV will have role in mid age

- hydrogen key - infrastructure expense

- spend time
- support into
- when stop start
- need to generate needs
- of community
- inpatient center on Mtb
- educational sessions
- drive activities - case expense
- look at list of aspiration
- 53% seen on 2005 level
- of ECAT eyes met
- helps us when things are
- monitor
- prefer to monitor things
- inpatient appointment
- appointments - appointment
- 17500000 - 500 or 1000000
- 38% seen in new masses
- different program / services
- seen in emergency / services
- more program technology
- CTS Learning At 2008
- old time - At 1000000
- Mtb information broadcast spreads

- 6800 hybrid
- Mtb in Mtb
- BEV learns, B2 in patient
- lowest amount - density
- 30 bed models by 2030
- globally
- go with in need
- ~~with~~ - facilities
- PC versus of Hise, function
- custom bus
- get vehicles needed
- getting information
- Mtb for
- in need
- could come + pilot
- services to inpatient
- 50% + hybrid in 2005 year
- best limit in 2005 year
- target area 27% of need
- full product of staff
- about percentage different
- doesn't provide certainty
- actual look at status
- sheets of staff take new

- can seal supports, but goes through
- Geopolitics and SA
- omms of drug sets there
- town set at the
- that down again great great
- down went to corporate work
- seen in that freight north
- VTX - that more
- type lines need great social
- access to data sets
- makes data useful - what is
- required for road signs
- products built to the need
- significant amount of the data
- missing set right
- significant amount of the data
- grey imports - colored risk
- keywords, but not 151
- access to code - IP issues

- VDOT concerned about looking
- trans money
- situation all around
- plans can press cutting at
- get signals into car
- some one b/w making
- need help improve usability
- need carnets
- not the data gathering
- ~~information via VTX~~
- direct comm via ITS AS
- local money every 100m north
- commercial presses to night
- general - limits performance
- go setup costs
- north little bad weather
- well
- Oregon Center for AS 151
- great Dec 2X us 1765
- conflict numbers - 18500
- analyzing issues
- performance of state
- has to be in their interests
- the way

# CO<sub>2</sub> Research Overview

Department of Infrastructure,  
Transport, Regional Development  
and Communications

12 April 2022







# Overview - IHS Research & JWS Research

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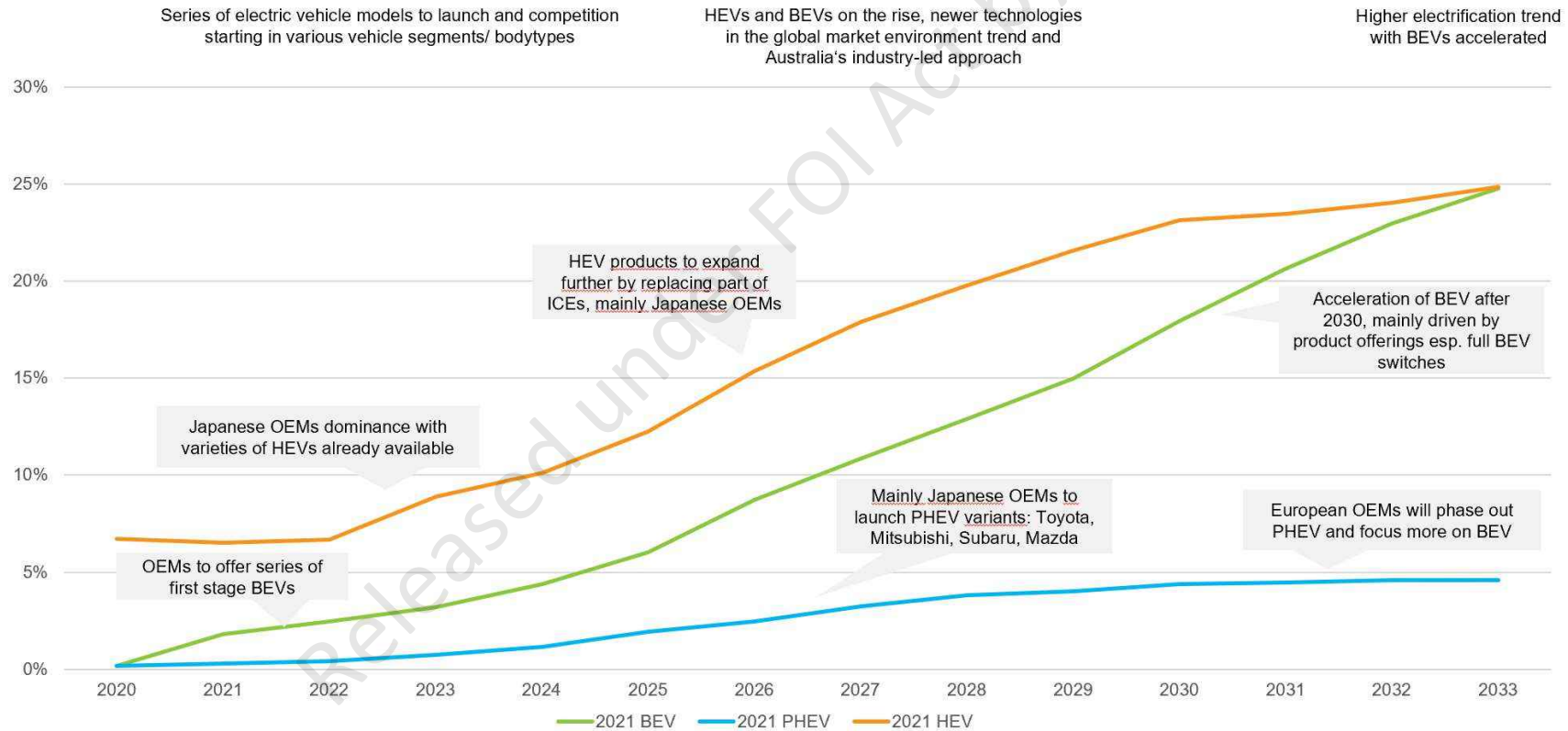
**Gold Source** on the Australian market for key decision makers and policy influencers

1. Global Regulation Library
2. Overview of Global OEM Strategies
3. Price Volume Analysis 2021 vs 2030
4. Sales based Powertrain Forecast to 2033
5. Charging infrastructure requirement 2025 & 2030
6. Impact on FCAI CO<sub>2</sub> Scheme 2030
7. [JHS consumer perception research](#)



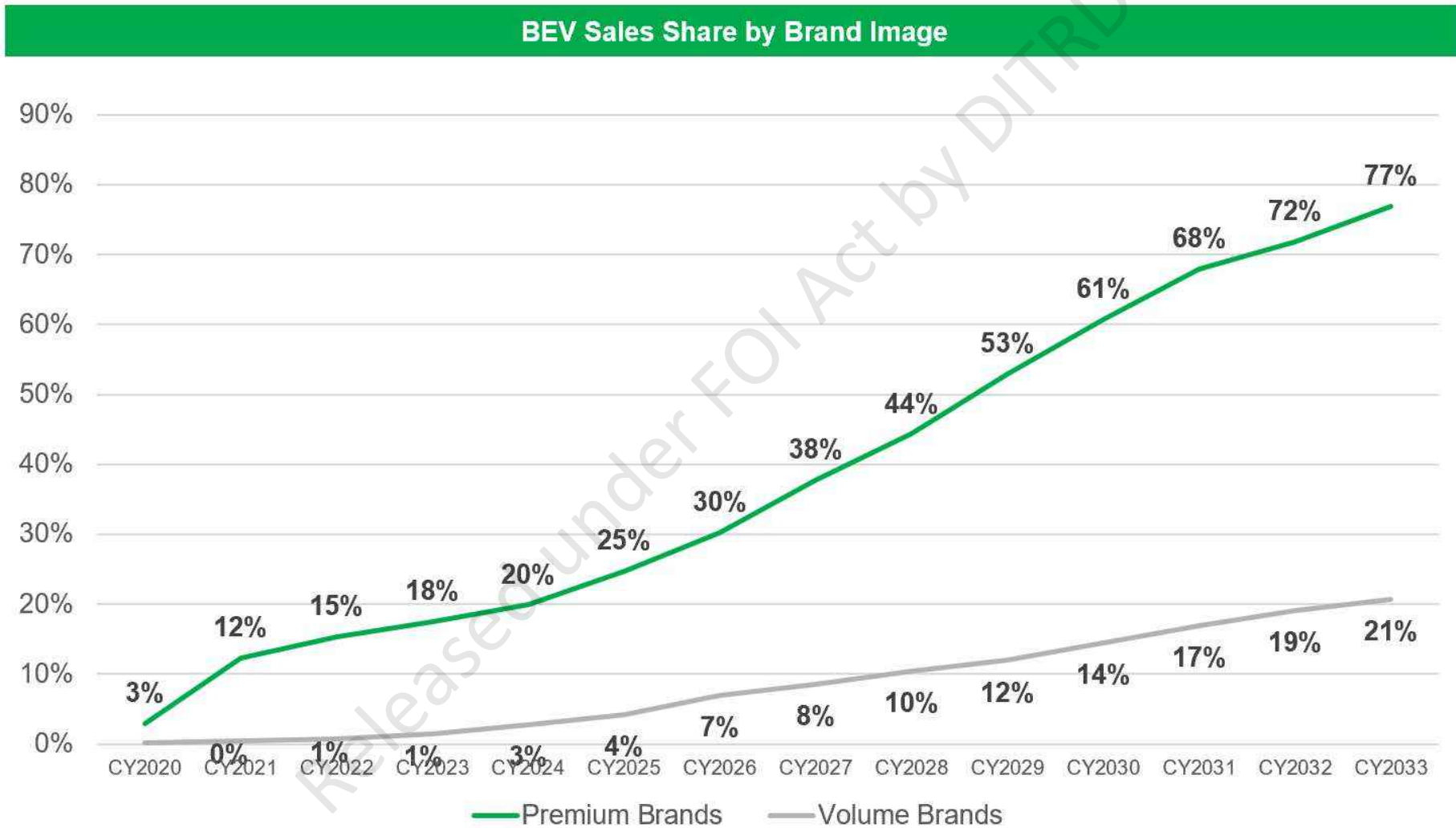
# Top line results – OEM Strategies

- Forecast Australian total industry volume
  - 18% BEV share passenger cars in 2030 and increasing to 25% in 2033
  - 24% ICE in 2030 and decreasing to 16% in 2033





# Top line results – OEM Strategies – Premium vs Volume

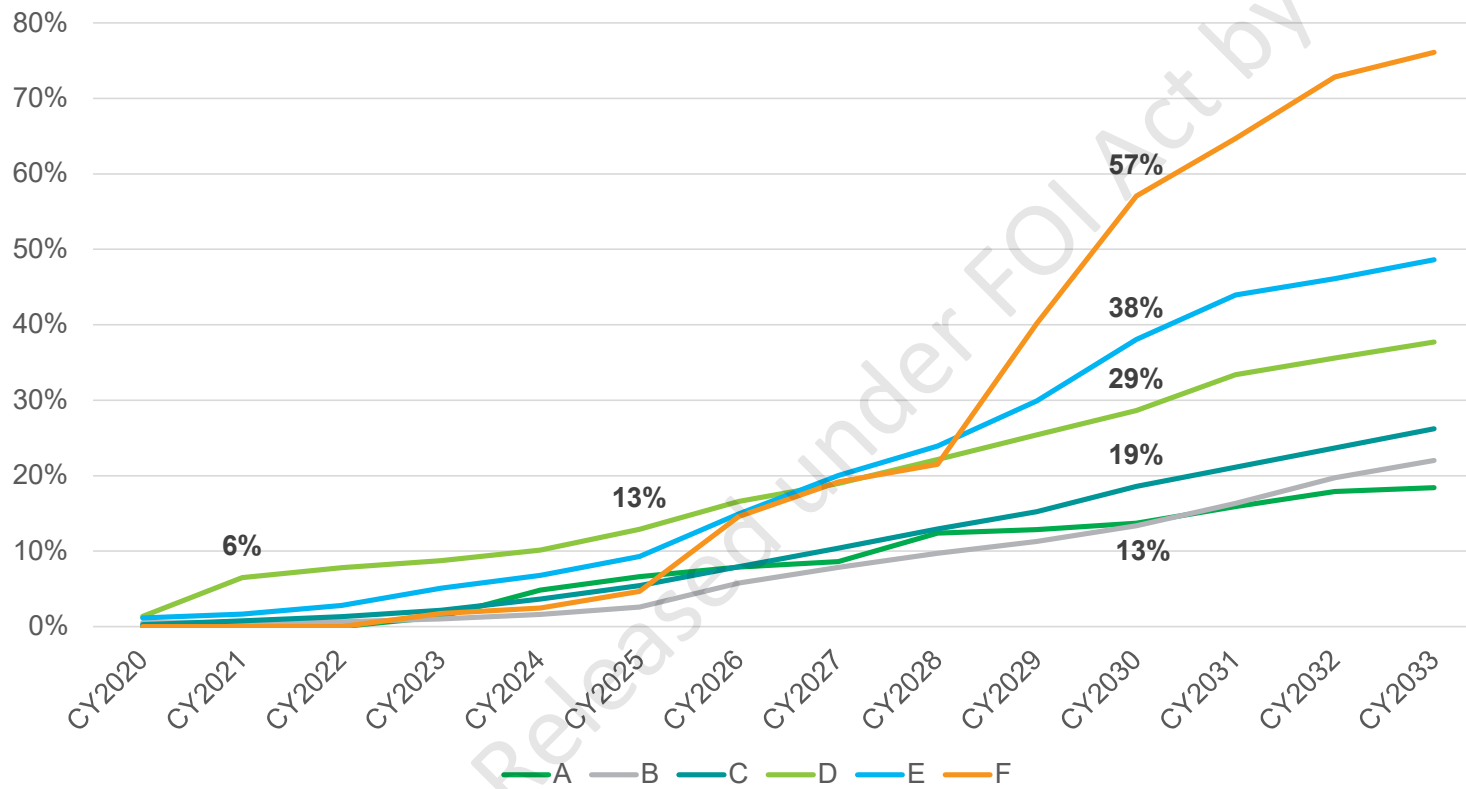




# BEV Sales Share by Segment for Passenger Cars

Since premium brands have higher market shares in large segments, their full-switch strategy from ICE to BEV in the end of the decade will drive the electric penetration to grow much faster than the mid-sized and compact segments

**Passenger Car BEV Sales Share by Segment**



Segment examples: A-Segment: Kia Pincato; B-Segment: Mazda CX-3; C-Segment: Toyota RAV4, D-Segment: Toyota Land Cruiser Prado; E-Segment: BMW X5; F-Segment: Ferrari 488



# Top line results – Premium vs Volume by Segment

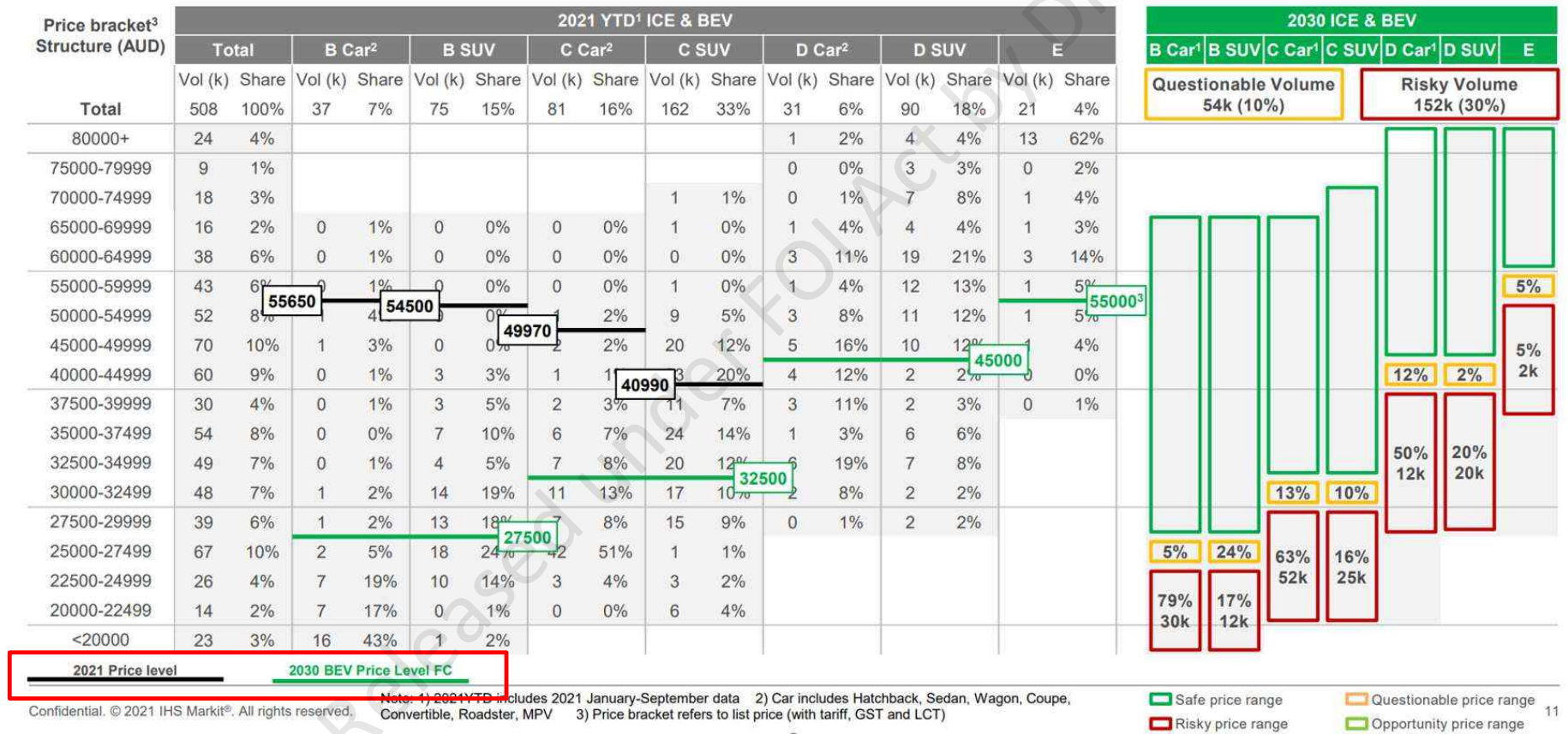
BEV % share of Aust	2030	2033	% Growth in 3 years
Total Market	18%	25%	39%
Premium Market	61%	77%	26%
Volume Market	14%	21%	50%

BEV % share of Segment	Premium		Volume	
	2030	2033	2030	2033
SUV	59%	72%	15%	21%
LC	-	-	1%	2%
PMV	63%	85%	14%	22%



# Top line results – BEV Vehicle Pricing 2021 vs 2030

- 100% BEV mandate 2030 – at least 30% of volume brand customers purchase price increases by ≈\$8,500 to \$17,000 entry EV

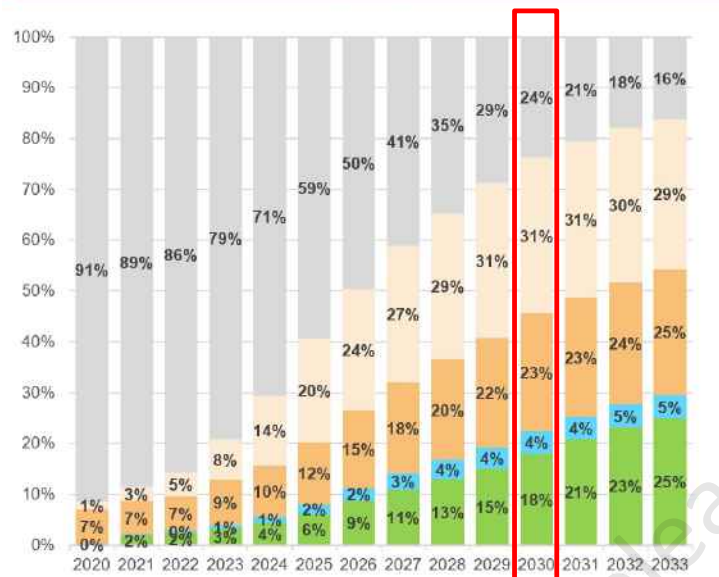




# Top line results – Total Industry Volume by Powertrain share

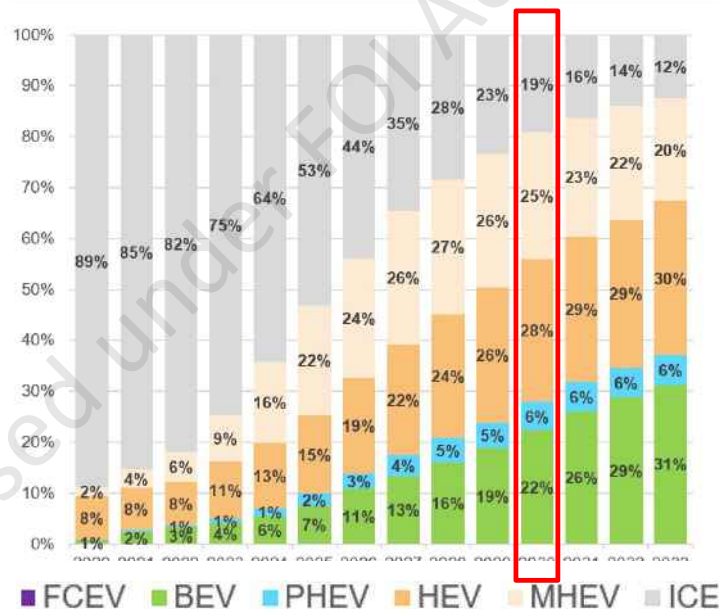
- **Total Car & Pick up** - Independent from regulations, global electrification strategies will push down the pure ICE share to 59% in 2025 and 24% in 2030. At the same time, the BEV sales share will have the potential to grow to 18%.
- **Passenger cars** - Attractive BEV offers among are expected to drive the BEV sales share to 22% in 2030, along with additional 6% PHEVs for specific use cases. However, the leading PSD in 2030 will be HEV.
- **Pick-ups** – Given the low regulatory pressure the RHD C-Pickup segment is expected to remain an ICE market with MHEV & HEV emerging over the forecast timeframe

TIV Sales by PSD, Sales Share



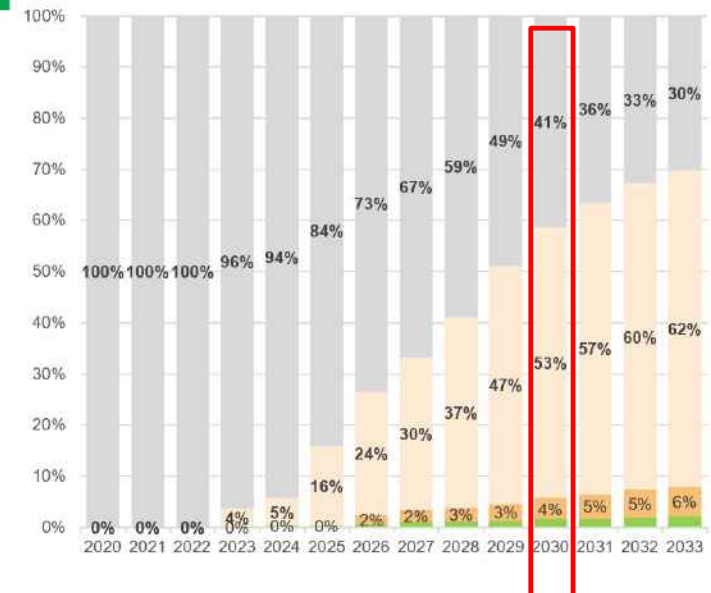
2030 Total Industry Volume 1.06m  
BEV 191k

Passenger Car Sales Shares by PSD



2030 Passenger Motor Vehicle 835k  
BEV 184k

Pick-up Sales Shares by PSD

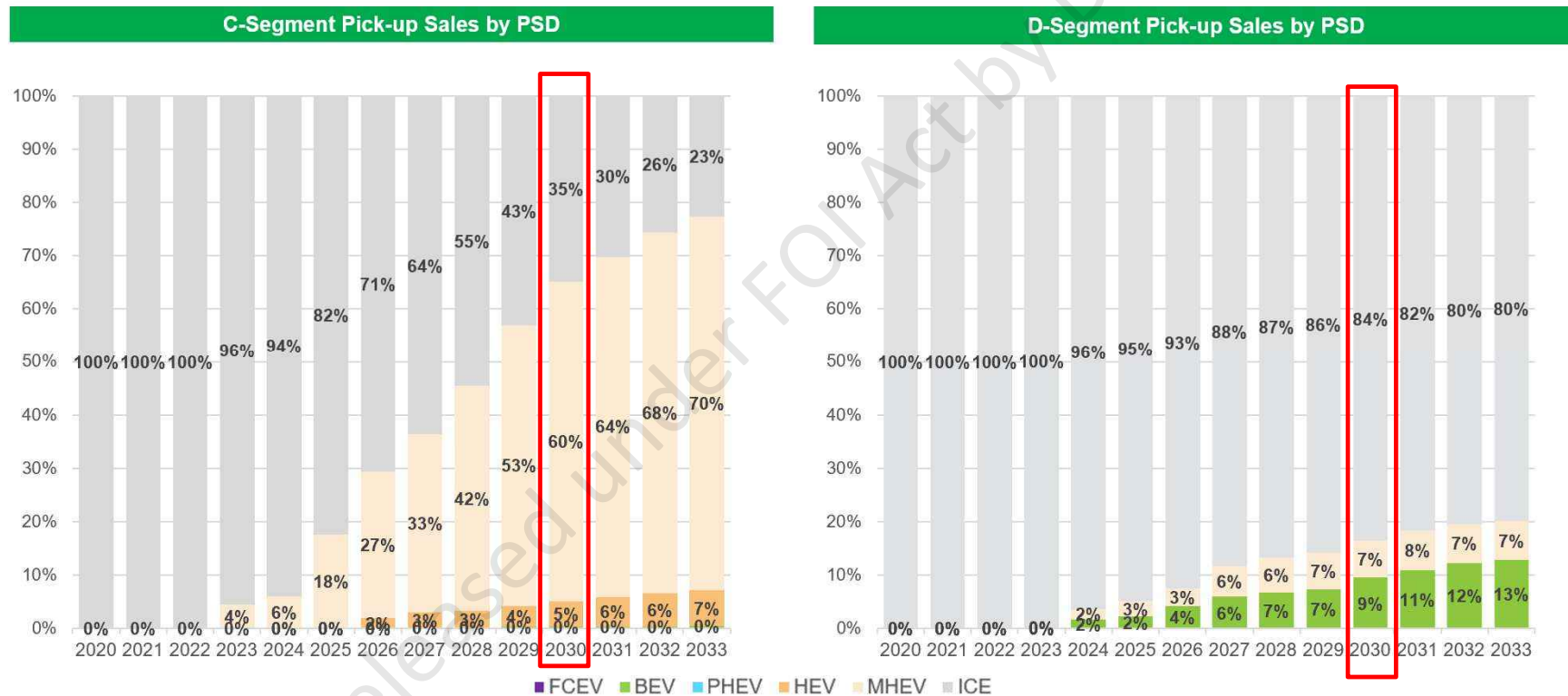


2030 Ute 220k  
BEV 2.6k



# Top line results – Mid Size Utes vs Large US Pick Ups

- Pick-ups** – D segment pick-ups produced in USA are expected to get BEV versions and some of them will be offered in Australia as well, while C segment pick-ups produced in Thailand will get hybrid versions but no BEV versions during the forecast timeframe.



2030 total Mid Size Utes 191k  
0 BEV

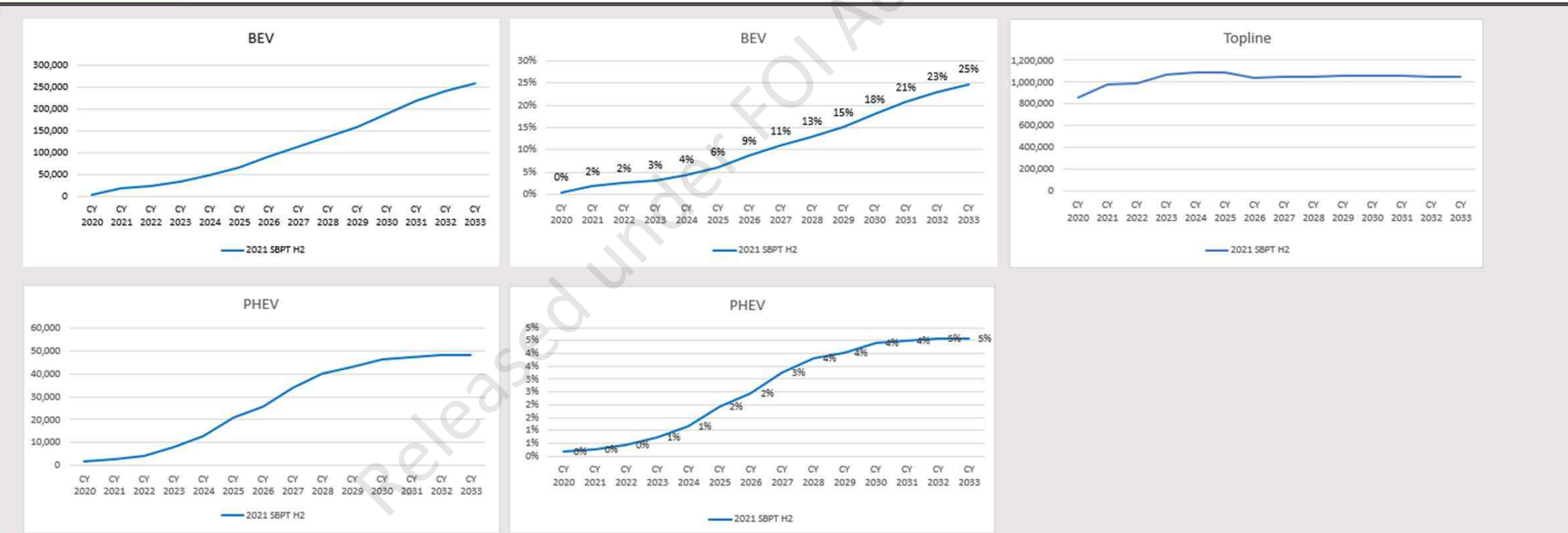
2030 total Large US Pick Up 29k  
2,610 BEV





# Further Data & Analysis is Available

<b>Sales Parent</b> Aston Martin BAIC BMW BYD Daimler Ferrari Ford Geely General Motors	<b>Sales Brand</b> Alfa Romeo Alpine Aston Martin Audi Bentley BMW BYD Chevrolet Chrysler	<b>Premium</b> No Yes  <b>Excluding Tesla</b> No Yes	<b>Sales Model</b> 2 3 6 86 911 124 1500 1500 EV 1-Series 2008 2500/3500 296 GTB 2-Series 2-Series Active Tourer 2-Series Gran Coupe 3 3008 300C	<b>IHS Segment</b> A B C D E F  <b>Pickup</b> No Yes	<b>IHS Bodystyle</b> Convertible Coupe Hatchback MPV Pickup Roadster Sedan SUV Van Wagon	<b>Fuel Type</b> Diesel Electricity Gasoline Hydrogen	<b>Propulsion System Design</b> BEV FCEV HEV ICE MHEV PHEV
--	--	--	--	--	--	---	--





# Top line results – Charging Infrastructure

---

- Current Government plans supports 50k home chargers and 1,000 public points in 2025
- IHS Markit found, based on the powertrain forecast, that
  - In 2025, 177k home chargers 6.8k public / semi-public chargers are needed.
  - In 2030, 724k home chargers and 25.8k public / semi-public chargers are needed.



# Top Line results– Consumer Research

43% Australians support a **dual strategy** of greater use of electric vehicles and of cleaner petrol/diesel/hybrid vehicle

- 19% EV only - 19%)
- 15% support cleaner petrol/diesel/hybrid vehicles only.
- Majority of Australians (51%) anticipate ultimately transitioning to EVs but >5years
- The greatest barriers
  - cost (63%),
  - lack of charging infrastructure (51%)
  - the terrain or distances travelled (43%).
- Government and EV drivers should fund infrastructure



# Policy Objectives

- Nationally consistent/Federally led vehicle CO<sub>2</sub> policy
- Implement a **mandatory new car CO<sub>2</sub> regulation** in with the FCAI voluntary scheme.
- Seek ZLEV policy including **obtaining incentives** in the following order:
  1. Public, Fleet and Private charging and hydrogen refuelling
  2. Non-financial ZLEV incentives (access to transit lanes, free parking, free charging)
  3. Mandated government fleet ZLEV procurement targets
  4. Purchase Incentives
- Accelerate the adoption of European standard **fuel quality**

FOI 23-076

**Archived:** Monday, 30 January 2023 3:13:30 PM  
**From:** [Ashley Sanders](#)  
**Mail received time:** Tue, 31 May 2022 15:16:19  
**Sent:** Tue, 31 May 2022 05:16:12  
**To:** s47F ; s47F  
**Cc:** s47F ; s47F  
**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]  
**Importance:** Normal  
**Sensitivity:** None

---

Hi s47F ,

Yes please bring a copy of your presentation on USB, just in case all other technology fails.

I'll have access to internet either through VGA, or hotspotting my phone to my PC.

See you on Thursday at 10:15am.

Thanks, Ashley

---

**From:** s47F  
**Sent:** Tuesday, 31 May 2022 10:23 AM  
**To:** Ashley Sanders ; s47F  
**Cc:** s47F ; s47F  
**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]

**OFFICIAL**

Hi Ashley,

Thanks for making space for us. We will bring a short Powerpoint presentation and will want to access the Internet to give you a quick demonstration of how the site will work. We can bring a USB with our presentation if you think that will work best.

Regards

s47F

Director • Sustainable Transport Section/ Sustainable Transport and Maritime Safety Review Branch • Surface Transport Policy Division

s47F [infrastructure.gov.au](#)

P +61 2 s47F • M s47F

GPO Box 594 Canberra, ACT 2601

*My pronouns: she/her*

**Department of Infrastructure, Transport, Regional Development and Communications**  
**CONNECTING AUSTRALIANS • ENRICHING COMMUNITIES • EMPOWERING REGIONS**

I would like to acknowledge the traditional custodians of this land on which we meet, work and live.

I recognise and respect their continuing connection to the land, waters and communities.

I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.

## OFFICIAL

**From:** Ashley Sanders <[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)>  
**Sent:** Tuesday, 31 May 2022 9:54 AM  
**To:** s47F <s47F@infrastructure.gov.au>  
**Cc:** s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>

**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]

Hi s47F

We're pleased to hear that you will attend the FCAI Technical Committee meeting on Thursday.

We will be meeting at Volkswagen Group Australia

Volkswagen Group Australia

895 South Dowling Street,

Zetland, NSW, 2017

Sydney, Australia

Our meeting starts at 10am, so we'll schedule this as our first agenda item after arrivals and meeting formalities. Let's say 10:15am for your presentation to start, tentatively 30 minutes with some time for Q&A at the end. No hard finish time.

Please let me know that this is acceptable.

Regards, Ashley Sanders

**From:** s47F <s47F@infrastructure.gov.au>  
**Sent:** Friday, 27 May 2022 4:02 PM  
**To:** Ashley Sanders <[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)>  
**Cc:** s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; Sustainable Transport <[Sustainable.Transport@infrastructure.gov.au](mailto:Sustainable.Transport@infrastructure.gov.au)>; s47F <s47F@infrastructure.gov.au>

**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]

## OFFICIAL

Hi Ashley

We are keen to attend the Technical meeting in person and show prototype of the redeveloped GVG website. At this stage

myself, s47F and s47F are considering to travel to Sydney for the meetings. FOI 23/076

In terms of the time, we would prefer the 10am slot. We would not take more than 30 minutes but please let us know if there are any time restrictions.

Thanks again for the invite

Regards

s47F

---

**OFFICIAL**

---

**From:** Ashley Sanders <[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)>

**Sent:** Tuesday, 24 May 2022 11:16 AM

**To:** s47F s47F <[infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)>

**Cc:** s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; Sustainable Transport <[Sustainable.Transport@infrastructure.gov.au](mailto:Sustainable.Transport@infrastructure.gov.au)>; s47F <s47F@infrastructure.gov.au>;

**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]

s47F

Further to my earlier email, copy appended, I'd be happy to include this discussion as an agenda item in our FCAI Technical Committee meeting of 2<sup>nd</sup> June if that works for you.

This meeting is to be held at Volkswagen Australia Group in Sydney on 2<sup>nd</sup> June. You could attend in person or I could arrange an MS Teams link.

The advantage of this would be that the entire membership of the FCAI Technical Committee (all brands invited) would be able to review and provide comment, rather than the Fuel and Emissions Working Group which is only an expert sub group of the TC.

If you'd like to consider this option, please let me know how long you think you'd need. A time slot immediately at the start of the meeting (10am) or after lunch (13:15pm) would probably work best.

Please let me know your thoughts.

Thanks, Ashley

---

**From:** Ashley Sanders

**Sent:** Tuesday, 24 May 2022 8:58 AM

**To:** s47F s47F <[infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)>

**Cc:** s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; Sustainable Transport <[Sustainable.Transport@infrastructure.gov.au](mailto:Sustainable.Transport@infrastructure.gov.au)>;

**Subject:** RE: Green Vehicle Guide website update [SEC=OFFICIAL]

Hi s47F

Thank you for your email requesting us to consult on the update of the GVG website.

My availability is poor for the next couple of weeks

2 June FCAI Technical meeting (all FCAI members will be at this meeting)

5~9 June Meetings with colleagues in Europe

But I am in Canberra Tuesday through Thursday the week after.

Please let me know whether a meeting that week would be possible.

Thanks,

Ashley Sanders

Technical Director

Ph +61 (0) 2 6229 8222

Mob: +61 (0) 418 823 244

[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)



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**From:** s47F <s47F@infrastructure.gov.au>

**Sent:** Monday, 23 May 2022 4:05 PM

**To:** Ashley Sanders <[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)>

**Cc:** s47F

<s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; Sustainable Transport <[Sustainable.Transport@infrastructure.gov.au](mailto:Sustainable.Transport@infrastructure.gov.au)>

**Subject:** Green Vehicle Guide website update [SEC=OFFICIAL]

**OFFICIAL**

Dear Ashley

As you may be aware, the Department of Infrastructure, Transport, Regional Development and Communications is planning to launch an updated version of the Green Vehicle Guide website later this year.



The Department is keen to work with key stakeholders such as yourself to develop the content of the redeveloped website and ensure the updated website has the greatest opportunity for success. We were hoping to arrange a time with you in the next couple of weeks to give you an opportunity to preview the proposed update to the website and to share your views on what your organisation would like to see in the new website.

If you or a colleague are available in the first week of June, please advise your availability and preferred times by return email. We are happy to meet with you in person at the Department's office in Canberra or online via Microsoft Teams.

If you have any queries, please let me know.

Regards

s47F

s47F (he/his/him)

Assistant Director • Sustainable Transport Section  
Sustainable Transport and Maritime Safety Review Branch • Surface Transport Policy Division

s47F [infrastructure.gov.au](http://infrastructure.gov.au)

P +61 2 s47F • M +61 s47F  
GPO Box 594 Canberra, ACT 2601

**Department of Infrastructure, Transport, Regional Development and Communications**  
**CONNECTING AUSTRALIANS • ENRICHING COMMUNITIES • EMPOWERING REGIONS**



*I would like to acknowledge the traditional custodians of this land on which we meet, work and live.  
I recognise and respect their continuing connection to the land, waters and communities.  
I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

**OFFICIAL**

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Disclaimer



Australian Government

Department of Infrastructure, Transport,  
Regional Development and Communications

# Green Vehicle Guide Update



Presented by s47F [redacted] Director, Sustainable Transport  
June 2022

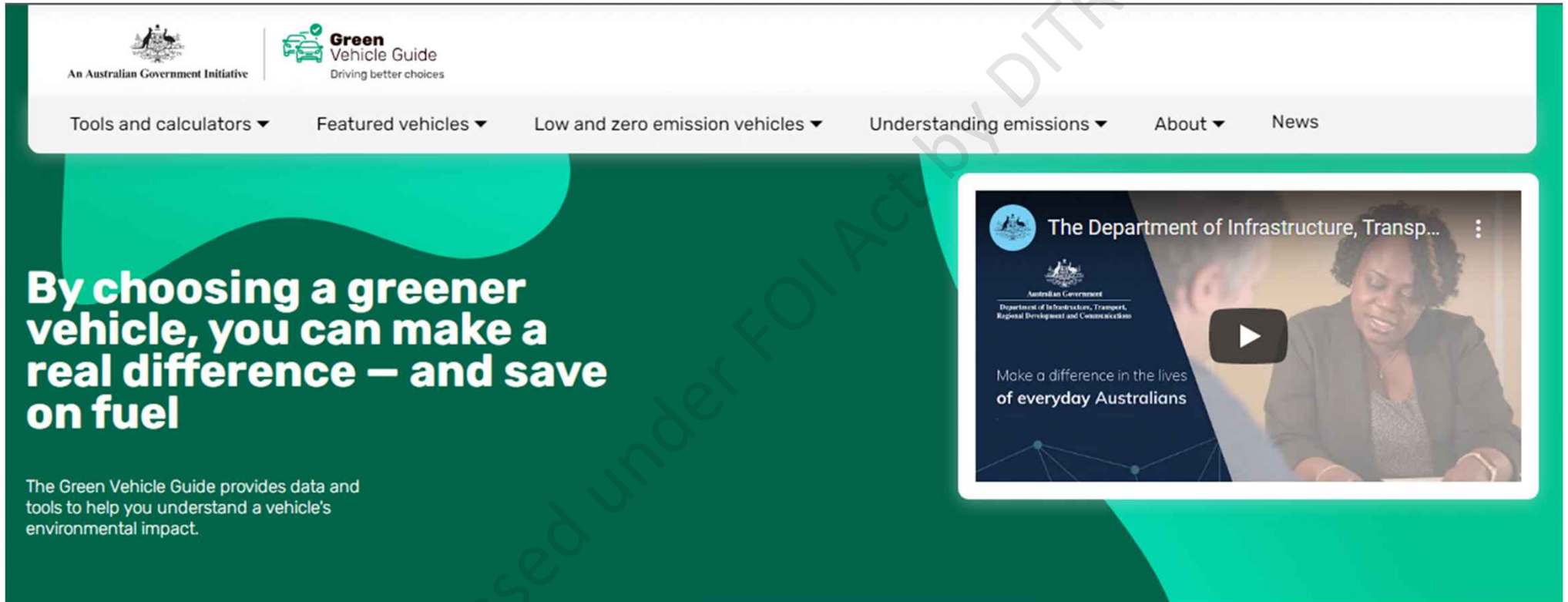
## Background

- Upgrade agreed as part of the Future Fuels Package announced in 2020-21 budget.
- EY redeveloping the public facing end of website.
- Proposed changes informed by market research conducted in 2021.
- Input to market research provided by stakeholders, including FCAI.

## What is changing?

- Improved look and feel of website
  - Better search function
  - Clearer information pages
- More content on low and zero emission vehicles (Electric, hybrid and hydrogen) including:
  - Information on how they work and where they can be refuelled
  - Information on incentives and other programs available through state and territory governments
- No plans to reintroduce star rating, but colour coding of proposed to indicate CO2 performance of vehicles
  - Green  $\leq 150\text{g/km}$ , Yellow – 151-220 g/km, Red  $>220\text{g/km}$
- Improvements to data entry side will be considered as part of future upgrades to ROVER
  - Adoption of UN R 154 as new ADR would enable noxious emissions fuel/energy/CO2 data to be reported together.

# Home page



Presentation title to go in the footer

s22(1)(a)(ii)

4

# Home page (vehicle search/compare)

**// Search and compare vehicles**

+ Add another vehicle | Search by features

**// Top 20 performers and sellers in Australia**

Top CO <sub>2</sub> performing vehicles <span>ⓘ</span>		Top sellers <span>ⓘ</span>	
1. Hyundai Ioniq	11. Nissan LEAF	1. Toyota Hilux 4x4	11. Isuzu D-MAX 4x4
2. Hyundai Kona	12. Hyundai Ioniq 5	2. Toyota RAV4	12. Mitsubishi Outlander
3. Tesla Model 3	13. Mazda MX-30	3. Mitsubishi Triton 4x4	13. MG MG3
4. Lexus UX 300e	14. Tesla Model X	4. Ford Ranger 4x4	14. Tesla Model 3

# Home page (information pages)

## // Getting started



### Tips for reducing emissions

There are many ways to reduce emissions, from minor changes in driving habits to simple maintenance. Follow these tips for greener driving.



### Plug-in vs hybrid electric

There are 2 types of hybrid vehicles – plug-in electric vehicles and hybrid electric vehicles. Explore these technologies and find which model is right for you.



### EV batteries explained

Learn how electrical car batteries function and how to maintain them, what to look for in an EV, and how to select the right tech one for your needs.



### Understanding emissions

Use this guide to learn about the different types of emissions vehicles produce, and to calculate a vehicle's emissions across its lifecycle.

## // Low and zero emission vehicles



Presentation title to go in the footer

s22(1)(a)(ii)

6

# Vehicle Search by features page

## Related links

- [Fuel and CO<sub>2</sub> calculator](#)
- [Fuel consumption label](#)
- [Home charging calculator](#)
- [How to use tools and calculators](#)

## Share this page

- [Twitter](#)
- [Facebook](#)
- [LinkedIn](#)

[Green Vehicle Guide](#) > [Tools and calculators](#) > [Search vehicles by feature](#)

## Search vehicle by feature

Search for a specific vehicle or compare several different vehicles and view a downloadable and shareable summary of data on emissions, fuel consumption, electric range, cost and noise data.

### Vehicle variables

Vehicles that are the identical make and model produce different emissions and use different amounts of fuel depending on the vehicle body type, engine, transmission, and drivetrain. Please specify vehicle variables to view results.

### Variant period

From Year:  ▼

To Year:  ▼

### Vehicle specifications

Make: <input type="text" value="Make"/> <span>▼</span>	Transmission: <input type="text" value="Trans. Type"/> <span>▼</span>	Fuel type: <input type="text" value="Fuel Type"/> <span>▼</span>
Model: <input type="text" value="Model"/> <span>▼</span>	Vehicle Class: <input type="text" value="Class"/> <span>▼</span>	Seats: <input type="text" value="Num. Seats"/> <span>▼</span>
Variant: <input type="text" value="Variant"/> <span>▼</span>	Body: <input type="text" value="Body Style"/> <span>▼</span>	Drive: <input type="text" value="Driven Wheels"/> <span>▼</span>

[Search vehicles](#)



# Vehicle Search by results page

## Your results

**Comb:** An average total of consumption from urban and extra urban conditions.  
**Urban:** Measurement is taken at a low average speed (~19km/h) where conditions are typically stop and start.  
**Extra:** Measurement is taken at a high average speed (~83km/h) where conditions are typically at a constant speed. Below are the results based on the filters you have selected. To compare vehicles by different variables, select a criteria below.

= Model is not current.

### Table legend

Worse than average	Average	Better than average
--------------------	---------	---------------------

Download as PDF | Email | Print Next column: +

**Compare by**

- Details <sup>(1)</sup>
- Tailpipe CO<sub>2</sub> <sup>(1)</sup>
- Annual fuel cost <sup>(1)</sup>
- Fuel consumption <sup>(1)</sup>
- Energy consumption <sup>(1)</sup>
- Electric range <sup>(1)</sup>
- Air pollution standard <sup>(1)</sup>
- Annual tailpipe CO<sub>2</sub> <sup>(1)</sup>
- Fuel lifecycle CO<sub>2</sub> <sup>(1)</sup>
- Noise data <sup>(1)</sup>

Model	Body	Engine	Transmission	Drivetrain	Tailpipe CO <sub>2</sub> (g/km)		
					Comb	Urban	Extra
Toyota Camry Ascent	4 door 5 seat Sedan	2.5L 4cyl Electric/Petrol 95RON	CVT	1 Spd, 2WD	95 (better than average)	98 (better than average)	95 (better than average)
Toyota Camry Ascent Sport	4 door 5 seat Sedan	2.5L 4cyl Electric/Petrol 95RON	CVT	1 Spd, 2WD	96 (better than average)	98 (better than average)	95 (better than average)
Toyota Camry SL	4 door 5 seat Sedan	2.5L 4cyl Electric/Petrol 95RON	CVT	1 Spd, 2WD	103 (better than average)	107 (better than average)	103 (slightly worse than average)
Toyota Camry SX	4 door 5 seat Sedan	2.5L 4cyl Electric/Petrol 95RON	CVT	1 Spd, 2WD	107 (better than average)	112 (better than average)	107 (Average)
Toyota Camry	4 door 5 seat Sedan	2.5L 4cyl Petrol 95RON	Auto	8 Spd, 2WD	155 (worse than average)	210 (worse than average)	123 (worse than average)

Presentation title to go in the footer

s22(1)(a)(ii)

8

## On-road emissions testing

- Both major parties committed to fund an on-road fuel consumption and emissions testing program run by the AAA.
- Incoming government committed \$14 million over four years.
- Department will work with AAA and other stakeholders to consider how testing program will be conducted, how the results will peer reviewed and how they will presented to the public.

Released under FOI Act by DITRDCA

Presentation title to go in the footer

s22(1)(a)(ii)

10

**Archived:** Monday, 30 January 2023 3:14:39 PM

**From:** s47F

**Mail received time:** Wed, 27 Jul 2022 16:43:01

**Sent:** Wed, 27 Jul 2022 06:42:55

**To:** [Maguire, Katrina](#)

**Cc:** s47F

s47F

s47F

s47F

**Subject:** Feedback from projections meeting with the FCAI [SEC=OFFICIAL:Sensitive]

**Importance:** Normal

**Sensitivity:** None

Hi Katrina and colleagues,

Fyi, s47F and I met with the FCAI this afternoon to discuss the emissions projections and how the FCAI's data might contribute to the 2022 official projections.

FCAI set out that:

- **their aim** is to convince Minister Bowen that legislating the FCAI's voluntary standard would effectively reduce emissions.
  - To do this, they are looking to understand how the projections compare to their voluntary standard
- the Department's published emissions for light vehicles are high, and our assumed efficiency improvement rates are low
- the bulk of the market will be hybrids by 2030, so efficiency will be much improved - even with no policy changes
- the supply of EVs globally will not be sufficient to enable 100% of sales to be EVs by 2035, because:
  - They claim EVs need 3 times as many semiconductor chips and that global chipmakers won't be able to ramp up in time
  - Battery minerals supply will also need to ramp up dramatically
- They also claim Australia's rate of charging station installation is insufficient to meet projected EV uptake levels.

Please note I have outlined the FCAI's views, which does not imply agreement. As the discussion mostly related to the Projections I let Glen do most of the talking, which he did with characteristic aplomb.

Kind regards,

s47F

s47F

**Assistant Manager - Transport**

International Climate Change & Technology Division | Technology Transition Branch | Transport Section

Ngunnawal Country, 51 Allara St, Canberra ACT 2601 Australia, GPO Box 3090

Department of Climate Change, Energy, the Environment and Water

P 02 s47F [@industry.gov.au](mailto:s47F@industry.gov.au)

**DCCEEW**.gov.au ABN 63 573 932 849

### Acknowledgement of Country

Our department recognises the First Peoples of this nation and their ongoing connection to culture and country. We acknowledge First Nations Peoples as the Traditional Owners, Custodians and Lore Keepers of the world's oldest living culture and pay respects to their Elders past, present and emerging

**OFFICIAL: Sensitive**

From: Ashley Sanders

Mail received time: Mon, 11 Jul 2022 16:02:01

Sent: Mon, 11 Jul 2022 06:01:38

To: s47F

Cc: s47F

Subject: FW: Update to Green Vehicle Guide [SEC=OFFICIAL]

Importance: Normal

Sensitivity: None

FOI 23-076

Hi s47

The brand that first raised the issue about the anomaly with GVG reporting between BEV, PHEV, HEV and ICEV has suggested something along the lines for the floating information box on the comparison result page.

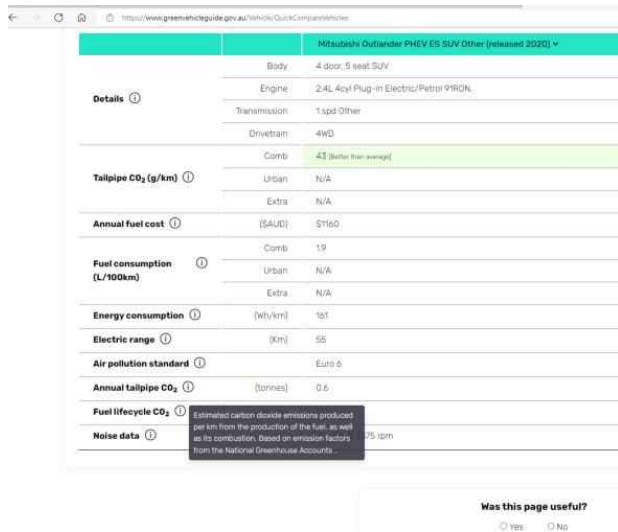
Estimated CO2 emissions produced per km from the production of fuel as well as its combustion. Based on emissions factors from the National Greenhouse Accounts.

For EV's and PHEV's CO2 emissions will be lower than indicated in regions with higher proportions of renewable energy, or where consumers utilise renewable energy sources.

I'm not sure what your word limit is on this. But at least it gives an idea of the type of info we'd like to see provided.

Again, as I mentioned on Friday, to make it default to not display would allow for the more reasonably informed consumer to be selecting the field for display.

Cheers, Ashley



OFFICIAL

From: Ashley Sanders <ashley.sanders@fcai.com.au>

Sent: Thursday, 7 July 2022 1:49 PM

To: s47F <s47F@infrastructure.gov.au>

Cc: s47F <s47F@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>

Subject: Re: Update to Green Vehicle Guide [SEC=OFFICIAL]

s47

Congratulations on the update to the GVG released this morning.

I have some concern over the way that the GVG is displaying fuel lifecycle emissions. Can you please confirm whether this has changed from the previous version of the GVG. To be fair, I remember having this same discussion when the GVG was last updated a number of years ago and the concept of fuel lifecycle emissions was first introduced. So perhaps my memory is flawed. The "Compare vehicles" tool appears to default to displaying Fuel Lifecycle emissions and that display uses a grid average of CO2 emissions from generation rather than allowing the user to select the state in which their power is sourced. The end result, especially now as the new government is looking to accelerate the decarbonisation of the transport sector, is to (perhaps inadvertently) lead the user to believe a HEV is superior in decarbonisation than a BEV despite the HEV operating on fossil fuel and the BEV potentially operating on 100% renewable energy.

I've done a number of quick comparisons looking at similar SUV's that are HEV, PHEV and EV to demonstrate my concern.

Comparison 1 (below)

The GVG result indicates that the EV (Kona EV) is only slightly better in terms fuel cycle emissions 106 vs 117 compared to a HEV (RAV4 hybrid), and a PHEV (Outlander PHEV) has significantly higher fuel cycle emissions than both the HEV and EV at 177g/km.

Comparison 2

It also indicates that there is essentially no fuel cycle emissions benefit from purchasing a PHEV vs the equivalent gasoline model. i.e. Outlander PHEV vs Outlander petrol. 177g/km vs 176g/km.

Comparison 3

FOI 23-076

Doing same comparison with Hyundai Ionic that is available as HEV, PHEV and EV indicates the HEV provides the lowest fuel lifecycle emissions.

Clearly this is not particularly supportive of the statement on the "Lifecycle Emissions" page <https://www.greenvehicleguide.gov.au/pages/UnderstandingEmissions/LifecycleEmissions> which states " This website uses tailpipe emissions to rank vehicles. This is because vehicles with zero tailpipe emissions are capable of zero emissions from vehicle use. A petrol or diesel vehicle cannot produce zero emissions from vehicle use, as petrol and diesel fuels contain carbon. "

It's a nuanced thing, but this clearly doesn't promote the tailpipe decarbonisation that can only be achieved by owners using EVs powered by renewably sourced electricity. To give a different message through comparison results, even inadvertently, seems counter-intuitive to the whole Green Vehicle Guide philosophy.

I may be wrong, but I thought that with the previous version of the GVG you had to actively select Fuel Lifecycle Emissions (default was not display) and then the ability to select a state to enable a more localised grid factor to be utilised.

Please let me know if and when you'd be available to discuss our concerns.

Thanks, Ashley

Comparison 1

[Download as PDF](#) | [Email](#) | [CSV](#) | [Print](#)

	Vehicle 1:	Vehicle 2:
	Toyota RAV4 GX/GXL/XSE/CRUISER SUV CVT (released 2021) ▾	Hyundai Kona EV 150kw SUV N/A (released 2021) ▾
<b>Details</b> ⓘ	Body	4 door, 5 seat SUV
	Engine	2.5L 4cyl Electric/Petrol 91RON,
	Transmission	1 spd CVT
	Drivetrain	4WD
<b>Tailpipe CO<sub>2</sub> (g/km)</b> ⓘ	Comb	109 [Better than average]
	Urban	112 [Better than average]
	Extra	109 [Better than average]
<b>Annual fuel cost</b> ⓘ	(SAUD) \$1223	\$550
<b>Fuel consumption (L/100km)</b> ⓘ	Comb	4.8
	Urban	5
	Extra	4.8
<b>Energy consumption</b> ⓘ	(Wh/km) N/A	131
<b>Electric range</b> ⓘ	(Km) N/A	557
<b>Air pollution standard</b> ⓘ	Euro 5	Pure EV
<b>Annual tailpipe CO<sub>2</sub></b> ⓘ	(tonnes) 1.53	0
<b>Fuel lifecycle CO<sub>2</sub></b> ⓘ	(g/km) 117	106
<b>Noise data</b> ⓘ	70 dBA @ 2500 rpm	N/A

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		Vehicle 1:	Vehicle 2:
		Toyota RAV4 GX/GXL/XSE/CRUISER SUV CVT (released 2021) ▾	Mitsubishi Outlander PHEV ES SUV Other (released 2020) ▾
<b>Details</b> ⓘ	Body	4 door, 5 seat SUV	4 door, 5 seat SUV
	Engine	2.5L 4cyl Electric/Petrol 91RON.	2.4L 4cyl Plug-in Electric/Petrol 91RON.
	Transmission	1 spd CVT	1 spd Other
	Drivetrain	4WD	4WD
<b>Tailpipe CO<sub>2</sub> (g/km)</b> ⓘ	Comb	109 [Better than average]	43 [Better than average]
	Urban	112 [Better than average]	N/A
	Extra	109 [Better than average]	N/A
<b>Annual fuel cost</b> ⓘ	(SAUD)	\$1223	\$1160
<b>Fuel consumption (L/100km)</b> ⓘ	Comb	4.8	1.9
	Urban	5	N/A
	Extra	4.8	N/A
<b>Energy consumption</b> ⓘ	(Wh/km)	N/A	161
<b>Electric range</b> ⓘ	(Km)	N/A	55
<b>Air pollution standard</b> ⓘ		Euro 5	Euro 6
<b>Annual tailpipe CO<sub>2</sub></b> ⓘ	(tonnes)	1.53	0.6
<b>Fuel lifecycle CO<sub>2</sub></b> ⓘ	(g/km)	117	177
<b>Noise data</b> ⓘ		70 dBA @ 2500 rpm	79 dBA @ 3375 rpm

Comparison 2

		Vehicle 1:	Vehicle 2:
		Mitsubishi Outlander PHEV ES SUV Other (released 2020) ▾	Mitsubishi Outlander ES SUV CVT (released 2020) ▾
<b>Details</b> ⓘ	Body	4 door, 5 seat SUV	4 door, 7 seat SUV
	Engine	2.4L 4cyl Plug-in Electric/Petrol 91RON.	2.4L 4cyl Petrol 91RON.
	Transmission	1 spd Other	1 spd CVT
	Drivetrain	4WD	4WD
<b>Tailpipe CO<sub>2</sub> (g/km)</b> ⓘ	Comb	43 [Better than average]	166 [Slightly better than average]
	Urban	N/A	211 [Slightly worse than average]
	Extra	N/A	140 [Better than average]
<b>Annual fuel cost</b> ⓘ	(SAUD)	\$1160	\$1835
<b>Fuel consumption (L/100km)</b> ⓘ	Comb	1.9	7.2
	Urban	N/A	9.2
	Extra	N/A	6
<b>Energy consumption</b> ⓘ	(Wh/km)	161	N/A
<b>Electric range</b> ⓘ	(Km)	55	N/A
<b>Air pollution standard</b> ⓘ		Euro 6	Euro 5
<b>Annual tailpipe CO<sub>2</sub></b> ⓘ	(tonnes)	0.6	2.32
<b>Fuel lifecycle CO<sub>2</sub></b> ⓘ	(g/km)	177	176
<b>Noise data</b> ⓘ		79 dBA @ 3375 rpm	78 dBA @ 3750 rpm

Comparison 3

	Vehicle 1:	Vehicle 2:	Vehicle 3:
	Hyundai Ioniq HEV (15 inch) Sedan Auto (released 2019) ▾	Hyundai Ioniq PHEV Sedan Auto (released 2019) ▾	Hyundai Ioniq EV Sedan N/A (released 2019) ▾
	Body	4 door, 5 seat Sedan	4 door, 5 seat Sedan
<b>Details</b> ⓘ	Engine	1.6L 4cyl Electric/Petrol 91RON	1.6L 4cyl Plug-in Electric/Petrol 91RON
	Transmission	6 spd Auto	6 spd Auto
	Drivetrain	2WD	2WD
<b>Tailpipe CO<sub>2</sub></b> (g/km) ⓘ	Comb	79 (Better than average)	26 (Better than average)
	Urban	77 (Better than average)	N/A
	Extra	83 (Better than average)	N/A
<b>Annual fuel cost</b> ⓘ	(SAUD)	\$666	\$675
<b>Fuel consumption</b> (L/100km) ⓘ	Comb	3.4	1.1
	Urban	3.4	N/A
	Extra	3.6	N/A
<b>Energy consumption</b> ⓘ	(Wh/km)	N/A	94
<b>Electric range</b> ⓘ	(Km)	N/A	63
<b>Air pollution standard</b> ⓘ		Euro 5	Euro 5
<b>Annual tailpipe CO<sub>2</sub></b> ⓘ	(tonnes)	1.11	0.36
<b>Fuel lifecycle CO<sub>2</sub></b> ⓘ	(g/km)	83	103
<b>Noise data</b> ⓘ		74 dBA @ 3750 rpm	81 dBA @ 3750 rpm

FOI 23-076

Released under FOI Act by DITRDCA

From: §47F <§47F@infrastructure.gov.au>  
 Sent: Thursday, 7 July 2022 9:23 AM  
 To: GvG <GvG@infrastructure.gov.au>  
 Subject: Update to Green Vehicle Guide [SEC=OFFICIAL]

EXTERNAL EMAIL: This email originated from outside of the organisation. Do not click links or open attachments unless you recognise the sender and know the content is safe.

**OFFICIAL**

Dear GVG Manufacturer representatives,

The updated Green Vehicle Guide website is now live. The updated website has an improved look and feel and additional information for consumers considering purchasing hybrid or electric vehicles.

The update does not affect the way new vehicle entries are submitted, but we hope to improve this in the future.

Please note, to login to the manufacturer end of the website you will now need to click on the manufacturer's login link at the bottom of the public website (highlighted below).



**Tools and calculators**

- Fuel cost and CO<sub>2</sub> calculator
- Home charging calculator
- Search cars
- Search older vehicles
- Compare vehicles
- How to guide
- Rankings and measurements
- Fuel consumption label
- Guides and resources

FOI 23-076

**Featured vehicles**

- The Top 20 performers and sellers
- Newly added vehicles

**Low and zero emission vehicles**

- Hybrid vehicles
- Electric vehicles
- Hydrogen vehicles

**Understanding emissions**

- Lifecycle emissions
- Vehicle emissions
- Tips to reduce your emissions
- Real world emissions

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- Contact us
- FAQs

**News**

**State and Territory schemes**

- Australian Capital Territory
- New South Wales
- Northern Territory
- Queensland
- South Australia
- Tasmania
- Victoria
- Western Australia

Disclaimer | Copyright 2022 | [Manufacturer's login](#) | Register | Privacy

This website is administered by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts

If you need to reset your password, please go to <https://my.infrastructure.gov.au/Account/ForgotPassword/>

Please feel free to contact us if you have further questions or comments about the updated website.

Regards

**S47F**

Green Vehicle Guide Team

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

P +61 2 **S47**

[f.gvg@infrastructure.gov.au](mailto:f.gvg@infrastructure.gov.au)

**OFFICIAL**

-----  
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**Archived:** Monday, 30 January 2023 3:16:45 PM

**From:**

**To:** s47F

**Subject:** FW: MB22-000451 [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[MB22-000451.docx](#);

OFFICIAL

Here is the meeting brief for Senator Brown. It does touch on the RVSA work, but at a high level. If more detailed info is required we may need seek further input.

Cheers, s47F

OFFICIAL

**From:** s47F

**Sent:** Monday, 1 August 2022 10:11 AM

**To:** s47F <s47F@infrastructure.gov.au>

**Subject:** MB22-000451 [SEC=OFFICIAL]

OFFICIAL

Hi Matt,

As discussed

s47F

s47F

Assistant Director – Legislation and Regulatory Policy Section

s47F [@Infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)

(02) s47F

GPO Box 594 Canberra, ACT 2601

**Department of Infrastructure, Transport, Regional Development, Communications and the Arts**


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[arts.gov.au](http://arts.gov.au)



*I would like to acknowledge the traditional custodians of this land on which we meet, work and live. I recognise and respect their continuing connection to the land, waters and communities. I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

OFFICIAL

	<p><b>Australian Government</b></p> <hr/> <p><b>Department of Infrastructure, Transport, Regional Development, Communications and the Arts</b></p>	<p><b>Meeting Brief</b></p>
		<p>MB22-000451</p>

**To: Senator the Hon Carol Brown, Assistant Minister for Infrastructure and Transport**  
(for information)  
**cc:** The Hon Catherine King MP  
**cc:** Mr David Hallinan, Deputy Secretary

**MEETING: Toyota Australia**

**Timing:** For meeting on Tuesday, 2 August 2022 - 4:00pm.

**Venue:** TBC

<p><b>Recommendation:</b></p>	
<p>1. That you <b>note</b> the information in this brief for your meeting with Mr Matthew Callachor, President and Chief Executive Officer, Toyota Australia.</p> <p><i>SENATOR THE HON CAROL BROWN.</i></p>	<p>Noted / Please Discuss</p> <p><b>Date:</b>...../...../ 2022</p>
<p><b>Minister's Comments</b></p>	
Empty space for Minister's Comments	

**Meeting with:** Mr Matthew Callachor, President and Chief Executive Officer, Toyota Australia and Mr Alex Lockie, Senior External Affairs Specialist, Toyota Australia (biographies are at **Attachment A**).

Mr Callachor requested this meeting with you to discuss Toyota's work to decarbonise road vehicles and concerns about certain settings in the Road Vehicle Standards (RVS) legislation.

**Our Proposed Objectives:**

1. Be receptive to any ideas that Mr Callachor has about linking Toyota's work to decarbonise road vehicles to the Government's commitment to increase electric vehicle uptake.
2. Provide advice about the intended operation of the RVS legislation.

**Their Objective:**

- To explain Toyota's work to decarbonise road vehicles and present concerns regarding RVS legislation provisions that allow third-parties to import and provide road vehicles in Australia.

**Key Points:**

*Toyota's work to decarbonise road vehicles*

1. Toyota is the leading manufacturer of (non-plug-in) hybrid vehicle technology and international proponent of hydrogen fuel cell vehicles (background is at **Attachment C**).
2. The department understands that Mr Callachor is seeking to discuss opportunities to align this work with the Government's commitment to increase the uptake of electric vehicles, including through the recently announced National Electric Vehicle Strategy.

*RVS Legislation settings*

3. Mr Callachor will discuss Toyota's concerns regarding the safety and quality of road vehicles that receive concessional RAV entry approvals under the RVS legislation, as they are being provided by a party other than the original manufacturer. He will also flag Toyota's concern that the thresholds for specialist or enthusiast vehicles (SEVs) are too open and limit the rights of manufacturers to decide what vehicles to provide in Australia.
4. The RVS legislation provides Australian consumers with a choice in road vehicles that meet certain safety, anti-theft and environmental emissions standards.
5. The legislation ensures quality by compelling third-party providers, including Registered Automotive Workshops, to ensure imported vehicles meet applicable standards and to meet recall obligations for the vehicles they provide. The SEVs criteria promote choice without generally allowing third parties to parallel import vehicles that are already available in Australia.
6. Mr Callachor is also likely to raise concerns regarding the decision to extend the transitional arrangements. The transition arrangements were extended until 30 June 2023 to assist those segments of industry most affected by the COVID pandemic with aligning business arrangements to the new legislation.
7. Government settings on the regulation of first supply of vehicles will need to be considered in the context of broader Government energy and emission priorities.

**Sensitive and Critical Information:**

Like other Federal Chamber of Automotive Industries (FCAI) members, Toyota has sought to limit the ability of third-parties (e.g. Registered Automotive Workshops) to provide road vehicles using the concessional pathway in the RVS. The FCAI does not represent all businesses in the Australian automobile industry and the RVS has been created to ensure appropriate competition in addition to ensuring the safety and quality of road vehicles provided in Australia.

**Attachments:**

Attachment A: Biographical Details

Attachment B: Talking Points

Attachment C: Background on Toyota's Work to Decarbonise Road Vehicles

ATTACHMENT B

**TALKING POINTS**

Decarbonising road vehicles

- The Government is developing the National Electric Vehicle Strategy to coordinate action across government, unions, industry and the community to address barriers to uptake, take advantage of opportunities and manage the challenges of transitioning to electric vehicles.
- Through the Strategy, the Government is increasing the penetration of electric vehicles into the Australian market at an affordable rate. The strategy will consider:
  - further measures to increase electric car sales and infrastructure
  - policy settings to encourage Australian manufacturing of electric car components (especially batteries) and possibly cars themselves; and
  - addressing the policy implications of declining fuel excise.

Road Vehicle Standards (RVS) legislation

- The RVS legislation was implemented in full on 1 July 2021. It sets performance-based standards for road vehicles to comply with before being provided in Australia.
- The legislation provides the basis for increased choice in the Australian automotive market. This does not extend to supporting the parallel importation of road vehicles, which are substantially the same as those already being provided in Australia by the original manufacturer or their approved agent under a vehicle type approval.
- The legislation provides a concessional pathway for importing vehicles and providing them in Australia. In most circumstances this is restricted to road vehicle types that are not already available to Australian consumers.
- Registered Automotive Workshops (RAWs) and other importers who use this pathway must ensure that the road vehicles they import are modified to meet applicable standards. The RVS legislation also applies uniform recall obligations regardless of who supplies the road vehicle to the Australian market, including concessional vehicles.
- The Government acknowledges that there are specialist vehicles that must be accessible to the Australian community if the RVS legislation is to meet its consumer choice objectives. The Specialist and Enthusiast Vehicles (SEVs) criteria provide for this.
- The SEVs criteria were drafted and tested extensively in consultation with industry before the RVS legislation was implemented. These criteria balance the competing interests of

industry without providing scope for the ongoing importation of vehicles that are already available locally.

Extension of the RVS transitional period

- The Government supported an extension to the RVS transitional arrangements to ensure an uninterrupted supply of road vehicles in Australia while providing those businesses that are still in the process of transitioning with further time to adopt the new legislation.
- The transitional arrangements end on 30 June 2023. My department continues to work with businesses across industry to transition to the RVS legislation.
- The extension of the RVS transitional arrangements does not exempt any segment of the vehicle manufacturing and importation sectors from transitioning to the new regulatory framework in order to continue providing road vehicles in Australia after 30 June 2023.

(If Raised by Mr Callachor) the Road Vehicle Regulator (ROVER) System

- The Government understands that ROVER needs to be an efficient tool for businesses, and the department continues to work closely with peak bodies and all ROVER users to better understand their specific requirements.
- Most recently, on 17 July 2022, the department implemented ROVER Release 7, which provides several new features and enhancements. This release responded to industry requests by introducing performance enhancements and improving the vehicle type approval application process.
- Users now have improved capacity to self-manage applications using new functionality to delete unwanted applications and to withdraw, amend and resubmit applications that require corrections.
- We are planning further ROVER enhancements.
- Importantly, the department takes feedback and industry ideas regarding ROVER through its RVS industry forums.
- I understand both the FCAI and Toyota participate in these forums. If you have specific ideas, they can be flagged with the department using this forum.

## ATTACHMENT C

### Background – Toyota’s Work to Decarbonise Road Vehicles

- Toyota sees itself as setting a foundation for future market take-up of this innovative zero emission technology, with the intent to introduce vehicles to the Australian market when there is consumer demand and the necessary regulations and infrastructure are in place to support the vehicle.
- Decarbonisation is part of the Toyota Environmental Challenge 2050, which is a set of six interlinked challenges that it announced in 2015 to create positive impacts on the planet and society.
- The decarbonisation challenge is referred to as the Vehicle CO<sub>2</sub> emissions challenge. Toyota’s broad objective is to achieve carbon neutrality as quickly as possible. Toyota seeks to achieve this by accelerating electrification and offering a diverse range of CO<sub>2</sub> efficient powertrain (engine and transmission) solutions to customers.
- Significant investment in powertrain solutions because of the diverse nature of energy sources across regions, the different transportation needs of people and thirdly, the imperative to maximise the Carbon Return on Investment to ensure that use of scarce battery raw materials is optimised.
- In practical terms, Toyota is the leading manufacturer of (non-plug-in) hybrid vehicle technology and a leading proponent in developing hydrogen fuel cell vehicles. In Australia, Toyota sells:
  - hybrid versions of the Yaris, Yaris Cross, Corolla, C-HR, RAV4 and Kluger as well as a number of Lexus models; and
  - one fully electric vehicle (Lexus UX300e) with plans to offer more in the future.
- As part of its decarbonisation challenge, Toyota has also set a carbon-zero target for factories by 2035.
- Toyota received funding from the Australian Renewable Energy Agency (ARENA) to transform part of its decommissioned car manufacturing plant in Altona (VIC) into a renewable energy hub to produce renewable hydrogen for both stationary energy and transport energy uses.

#### *Key Strategic Partnerships*

- Toyota Australia is a key member of the Federal Chamber of Automotive Industries (FCAI), the peak body representing light vehicle manufacturers, which adopted its own fuel efficiency standards in 2020 that target significant CO<sub>2</sub> emissions by 2030.
- Toyota is a foundation member of Hydrogen Mobility Australia (HMA). HMA is a national body that will work to accelerate the commercialisation of new hydrogen and fuel cell technologies across the entire hydrogen value chain, including production, export and storage for transport in Australia and overseas. Membership comprises vehicle manufacturers, energy companies and infrastructure providers.

# TOYOTA

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**TOYOTA MOTOR CORPORATION AUSTRALIA LIMITED**

A.C.N. 009 686 097 A.B.N. 64 009 686 097

Mr Jim Betts  
Secretary of the Department of Infrastructure,  
Transport, Regional Development, Communications,  
and the Arts  
GPO Box 594  
CANBERRA ACT 2601

26th August 2022

Dear Mr Betts,

I am writing to thank you for supporting my 2<sup>nd</sup> August visit with the Department. I appreciate other commitments meant you could not join but we had good discussions with your team headed by Marisa Purvis-Smith.

To recap, we were able to discuss and share details on:

**Toyota Australia's pathway towards carbon neutrality.**

Explaining short to longer term options for vehicle electrification as well as other carbon neutral solutions under study including internal combustion engines powered by biofuels and e-fuels. It was promising to hear the Department has broader interest in carbon neutral fuels and sees potential application in transport including aviation.

Toyota acknowledges light vehicles have an important role to play in reducing CO2 emissions and advocates for delivery to the market in a way that factors in all road users and Australian market conditions. We look forward to continuing to engage on this important topic particularly as government works towards a National EV Strategy.

s47G



**TOYOTA**

s47G



Jim, thank you again for the opportunity to discuss these important industry matters and please rest assured that Toyota wishes to continue to work closely with government and be part of the solution.

Yours sincerely

**TOYOTA MOTOR CORPORATION AUSTRALIA LIMITED**



**Matthew Callachor**  
President & CEO

Released under FOI Act by DIT/DCA

FOI 23-076

**Archived:** Monday, 30 January 2023 3:17:00 PM**From:** s47F**Mail received time:** Tue, 30 Aug 2022 13:35:50**Sent:** Tue, 30 Aug 2022 13:35:49**To:** [GLADMAN Catherine](#)**Cc:** s47F**Subject:** FW: MS22-000xxx - Vic ruling on label data 290822.docx [SEC=PROTECTED, CAVEAT=SH:CABINET, ACCESS=Legal-Privilege]**Importance:** Normal**Sensitivity:** None**Attachments:**[MS22-000xxx - Vic ruling on label data 290822.docx](#);

PROTECTED, SH:CABINET, Legal-Privilege

Hi Catherine, s47 sent this to me yesterday anticipating that the Mitsubishi issue would come up soon and we would need to brief the Office. In the interim, this will be a useful brief for the meeting. We should also invite someone from VSPP as legislative changes that have been put forward are in their patch. Melissa Cashman might be the right person to include.

Regards

s47F

This material contains information that may be subject to legal professional privilege.

PROTECTED, SH:CABINET, Legal-Privilege

**From:** s47F**Sent:** Monday, 29 August 2022 1:18 PM**To:** s47F <s47F@infrastructure.gov.au>**Subject:** MS22-000xxx - Vic ruling on label data 290822.docx [SEC=PROTECTED, CAVEAT=SH:CABINET, ACCESS=Legal-Privilege]

PROTECTED, SH:CABINET, Legal-Privilege

Hi s47F

As discussed previously, Mitsubishi lost its appeal against the Victorian Supreme Court ruling on its label data. Please find attached a draft brief for the MO, if and when it is needed. The issue may be raised against when the AAA's testing program gains momentum.

Cheers, s47F

This material contains information that may be subject to legal professional privilege.

FOI 23-076

**Archived:** Monday, 30 January 2023 3:17:11 PM  
**From:** s47F  
**Mail received time:** Mon, 1 Aug 2022 12:28:58  
**Sent:** Mon, 1 Aug 2022 12:28:57  
**To:** s47F  
**Cc:** [LANGFORD Anita](#) s47F  
**Subject:** RE: EC22-000676 Dep Sec meeting with Toyota.docx [SEC=OFFICIAL]  
**Importance:** Normal  
**Sensitivity:** None  
**Attachments:**  
[EC22-000676 Dep Sec meeting with Toyota.docx](#);

OFFICIAL

Hi s47F

I suggested three minor wording changes – as highlighted. These are replacing reference from the Government to the department.

Otherwise, I think this briefing covers the issues likely to be raised by Toyota.

Regards

s47

s47F

Assistant Director – Legislation and Regulatory Policy Section

s47F [@Infrastructure.gov.au](#)

(02) s47F

GPO Box 594 Canberra, ACT 2601

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 I recognise and respect their continuing connection to the land, waters and communities.  
 I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

OFFICIAL

**From:** s47F  
**Sent:** Monday, 1 August 2022 11:17 AM  
**To:** s47F [@infrastructure.gov.au](#)  
**Cc:** LANGFORD Anita <[Anita.Langford@infrastructure.gov.au](mailto:Anita.Langford@infrastructure.gov.au)>; s47F <s47F@infrastructure.gov.au>  
**Subject:** EC22-000676 Dep Sec meeting with Toyota.docx [SEC=OFFICIAL]

Hi s47,

Thanks for sending through the brief for the meeting with Senator Brown.

Our Dep Sec's meeting with Toyota appears to be on the same day as the meeting with Senator Brown and concerns the same subject, so we have prepared a meeting brief based on the brief for Senator Brown. Grateful if you could review and let me know if there is anything further you wish to add/update from your end in the next hour or so.

Regards

s47F

Sustainable Transport • Surface Transport Policy Division

s47F [infrastructure.gov.au](http://infrastructure.gov.au)

P +61 2 s47F

GPO Box 594 Canberra, ACT 2601

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	<p><b>Australian Government</b></p> <hr/> <p><b>Department of Infrastructure, Transport, Regional Development, Communications and the Arts</b></p>
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**To:** Marvis Purvis-Smith (for noting)  
Deputy Secretary

**MEETING: Meeting with Toyota Australia**

**Timing:** For meeting on 2 August 2022

**Venue:** Executive Boardroom

<b>Recommendations:</b>	
<p>1. That you note the information in this brief for your meeting with Mr Matthew Callachor, President and Chief Executive Officer, Toyota Australia.</p>	
<b>Noted / Please Discuss</b>	
<p>Marisa Purvis-Smith</p> <p><b>Comments:</b></p>	<p>Date:</p>

**Meeting with:** Mr Matthew Callachor, President and Chief Executive Officer, Toyota Australia and Mr Alex Lockie, Senior External Affairs Specialist, Toyota Australia (biographies are at **Attachment A**).

**What do the attendees want:**

Mr Callachor requested this meeting with you to discuss Toyota's work to decarbonise road vehicles and concerns about certain settings in the Road Vehicle Standards (RVS) legislation that allow third-parties to import and provide road vehicles in Australia.

**What does the department want:**

1. Be receptive to any ideas that Mr Callachor has about linking Toyota's work to decarbonise road vehicles to the Government's commitment to increase electric vehicle uptake.
2. Provide advice about the intended operation of the RVS legislation.

**Key Points:***Toyota's work to decarbonise road vehicles*

1. Toyota is the leading manufacturer of (non-plug-in) hybrid vehicle technology and international proponent of hydrogen fuel cell vehicles (background is at **Attachment C**).
2. The department understands that Mr Callachor is seeking to discuss opportunities to align this work with the Government's commitment to increase the uptake of electric vehicles, including through the recently announced National Electric Vehicle Strategy.

*RVS Legislation settings*

3. Mr Callachor will discuss Toyota's concerns regarding the safety and quality of road vehicles that receive concessional RAV entry approvals under the RVS legislation, as they are being provided by a party other than the original manufacturer. He will also flag Toyota's concern that the thresholds for specialist or enthusiast vehicles (SEVs) are too open and limit the rights of manufacturers to decide what vehicles to provide in Australia.
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7. Government settings on the regulation of first supply of vehicles will need to be considered in the context of broader Government energy and emission priorities.

**Sensitive and Critical Information:**

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Name: Catherine Gladman  
 Position: Assistant Secretary, Sustainable Transport and Maritime Safety Review  
 Division: Surface Transport Policy  
 Ph: 6274 7488  
 Mob: s47F  
 Date: 1 August 2022

Contact Officer: s47F  
 Section: Sustainable Transport  
 Ph: s47F  
 Mob: s47F

**Attachments:**

Attachment A: Biographical Details

Attachment B: Talking Points

Attachment C: Background on Toyota's Work to Decarbonise Road Vehicles

**Archived:** Monday, 30 January 2023 3:17:23 PM

**From:** [AADA - Events](#)

**Mail received time:** Thu, 18 Aug 2022 10:39:17

**Sent:** Thu, 18 Aug 2022 00:38:52

**To:** [GvG](#)

**Subject:** Reminder - RSVP for FCAI and AADA Automotive Vehicle Emissions Forum

**Importance:** Normal

**Sensitivity:** None

---

Dear s47F

You have been invited to the Automotive Vehicle Emissions Forum on Tuesday, 6 September 2022.

**Date:** Tuesday, 6 September 2022

**Time:** 5:00pm to 9:00pm

**Location:** Parliament House, Alcove

**Program:** Attached is a full program of events for the evening

You should have received a formal save the date email from our event partners Greenvelope, this is a friendly reminder to please provide your RSVP by Tuesday, 30 August 2022.

RSVP Link: <https://www.greenvelope.com/card/qZZ248A>

We look forward to seeing you there.

Kind Regards,



FEDERAL  
CHAMBER OF  
AUTOMOTIVE  
INDUSTRIES



AUSTRALIAN  
AUTOMOTIVE  
DEALER  
ASSOCIATION



Australian  
Automobile  
Association

NALSPA



AUSTRALIAN AUTOMOTIVE  
AFTERMARKET ASSOCIATION

# AUTO CHANGE DRIVING AUSTRALIA TO NET ZERO



## VEHICLE EMISSIONS FORUM

PARLIAMENT HOUSE, ALCOVE  
**TUESDAY, 6 SEPTEMBER**  
**5:00PM - 9:00PM**

The Automotive Industry invites you to a Vehicle Emissions Forum Hosted by David Speers

RSVP BY 30 AUGUST 2022



### Forecasting study by S&P

FCAI CEO, Tony Weber will present a forecasting study by S&P Global detailing the outlook for the Australian automotive market.

### Forecasting study by Deloitte

Deloitte Director, Andrew Moore, will present their study on Australia's Transition to low emission vehicle environment.

### The Hon Chris Bowen MP

Hear from Minister for Climate Change and Energy, Chris Bowen about the government's plans for the automotive industry in the emissions space.

### Auto Industry Q&A Panel

Automotive industry association heads and consumer advocate leaders will form a panel with host David Speers to lead an important discussion on what to expect in the emissions space.

### Senator the Hon Bridget McKenzie

Leader of The Nationals in the Senate, Bridget McKenzie will share her focus on regional Australia.

### Canapes & Networking

Enjoy canapes, networking and the chance to talk with leading industry experts.



Archived: Monday, 30 January 2023 3:17:33 PM

From: s47F

Mail received time: Wed, 28 Sep 2022 16:22:17

Sent: Wed, 28 Sep 2022 16:22:14

To: s47F

Subject: FW: 22#184422DOC Meeting Brief - FCAI - vehicle industry electrification briefing.DOCX [SEC=OFFICIAL]

Importance: Normal

Sensitivity: None

Attachments:

Attachment A - FCAI presentation - Vehicle Emissions Forum.pdf; Attachment B - FCAI Three Point Plan.pdf; Attachment C - SMH - 5 Aug 2022 - Industry secret plan to slow EV uptake.pdf; Meeting Brief - FCAI - vehicle industry electrification briefing.DOCX;

OFFICIAL

As discussed.

OFFICIAL

From: s47F

Sent: Tuesday, 13 September 2022 8:59 AM

To: s47F @infrastructure.gov.au>

Cc: s47E(d) @infrastructure.gov.au>; MADSEN2 Andrew <Andrew.Madsen2@infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>; s47F @infrastructure.gov.au>; s47F <s47F@infrastructure.gov.au>

Subject: FW: 22#184422DOC Meeting Brief - FCAI - vehicle industry electrification briefing.DOCX [SEC=OFFICIAL]

OFFICIAL

Hi s47F

Please find attached a brief for Marisa's meeting with Tony Weber. Caitlin will bring the original to you.

Regards

s47F

s47F (he/him)

A/g Director • Sustainable Transport Section  
Sustainable Transport and Maritime Safety Review Branch • Surface Transport Policy Division

s47F [infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)

P +61 2 s47F • M +61 s47F

GPO Box 594 Canberra, ACT 2601

Department of Infrastructure, Transport, Regional Development, Communications and the Arts

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I would like to acknowledge the traditional custodians of this land on which we live and live.  
I recognise and respect their continuing connection to the land, waters and communities.  
I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.

**OFFICIAL**

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AUSTRALIAN  
AUTOMOTIVE  
DEALER  
ASSOCIATION

# Driving Australia to Net Zero – Vehicle Emissions Forum

Tuesday 6 September 2022

# Driving Australia to Net Zero: Vehicle Emissions Forum

Tony Weber – Chief Executive  
6 September 2022



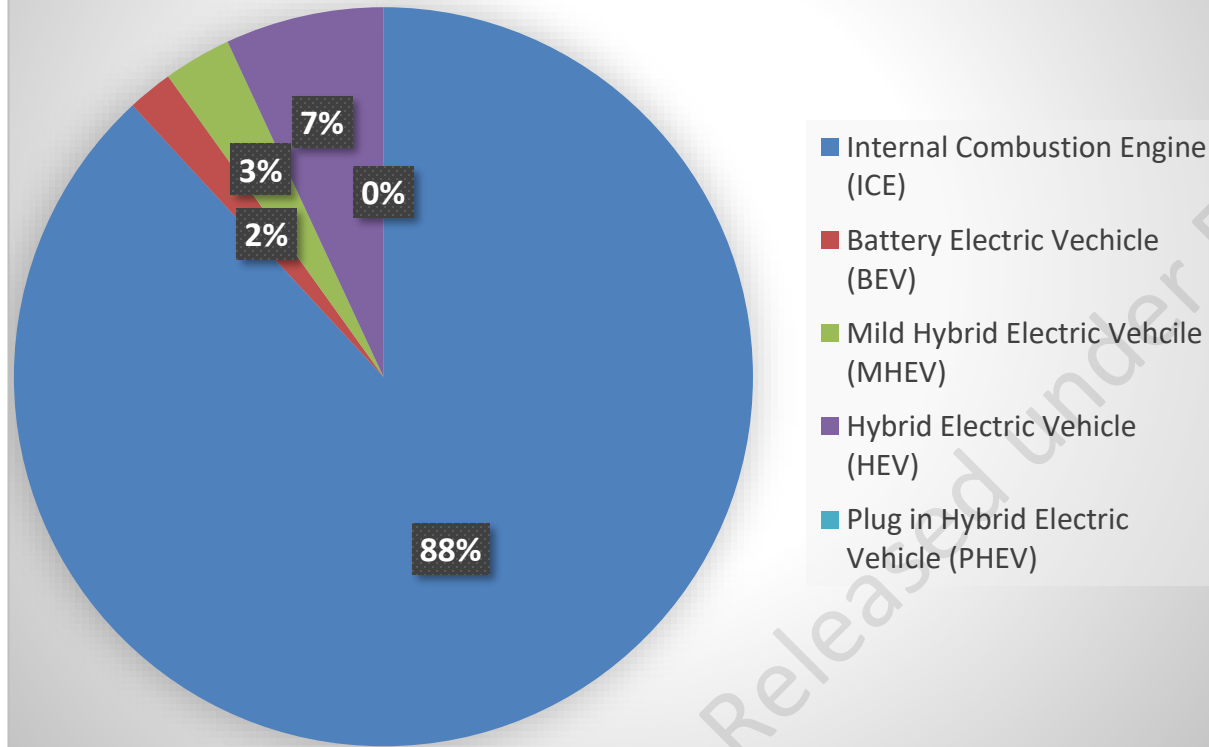


To decarbonise the light vehicle sector in the most efficient and effective way in the Australian context

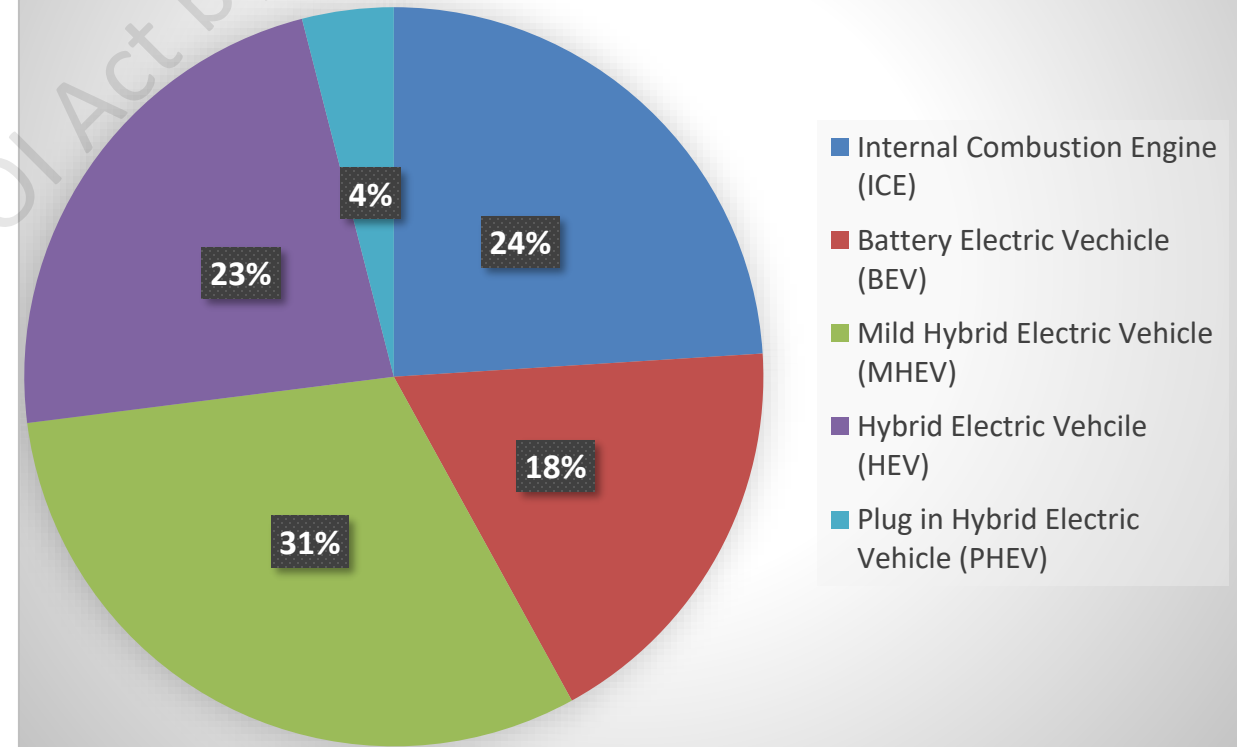
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# Starting Point - Australian Market 2021 vs 2030

## Total Industry Volume (TIV) by Propulsion System Design in 2021

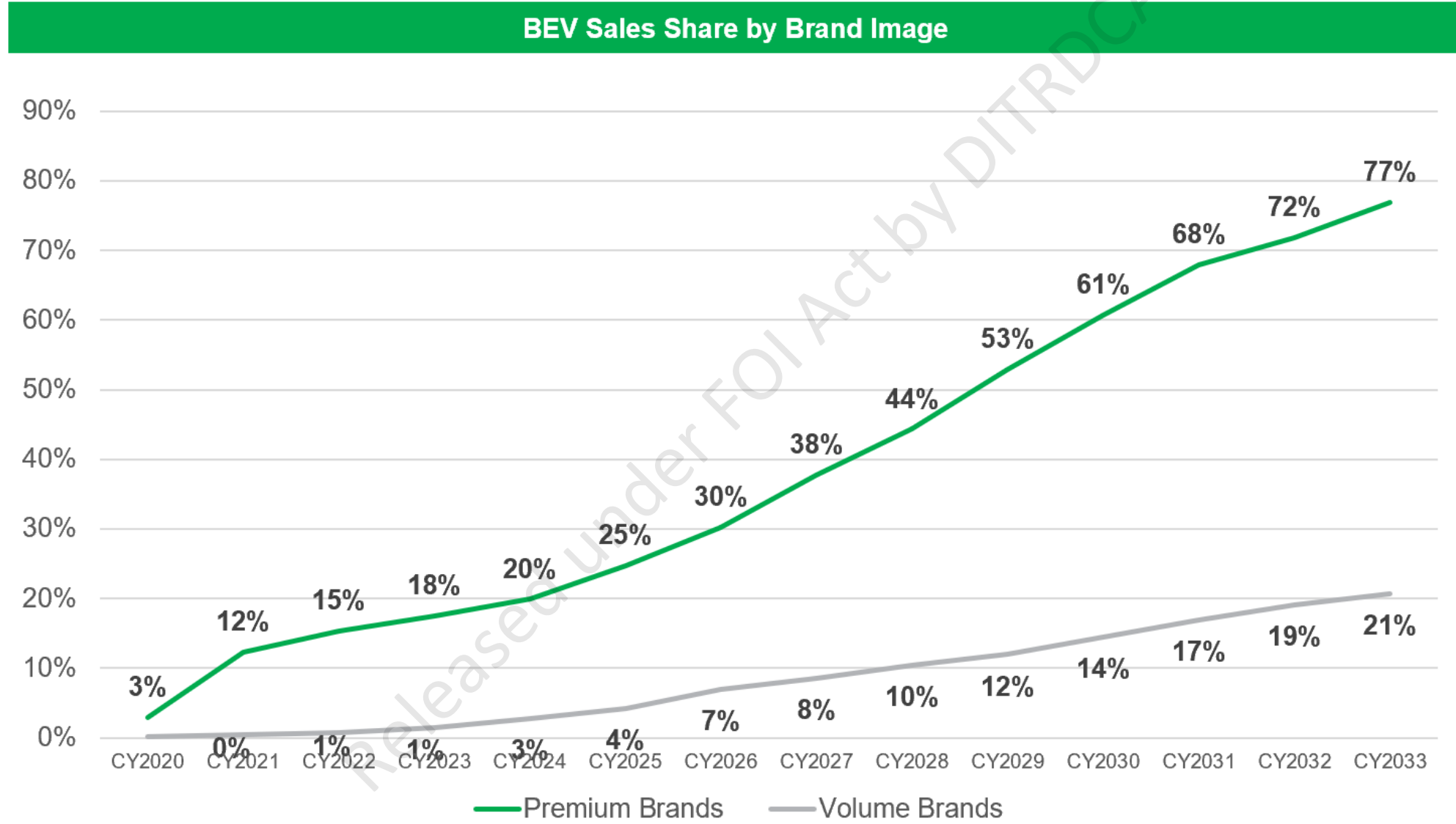


## Total Industry Volume (TIV) by Propulsion System Design in 2030





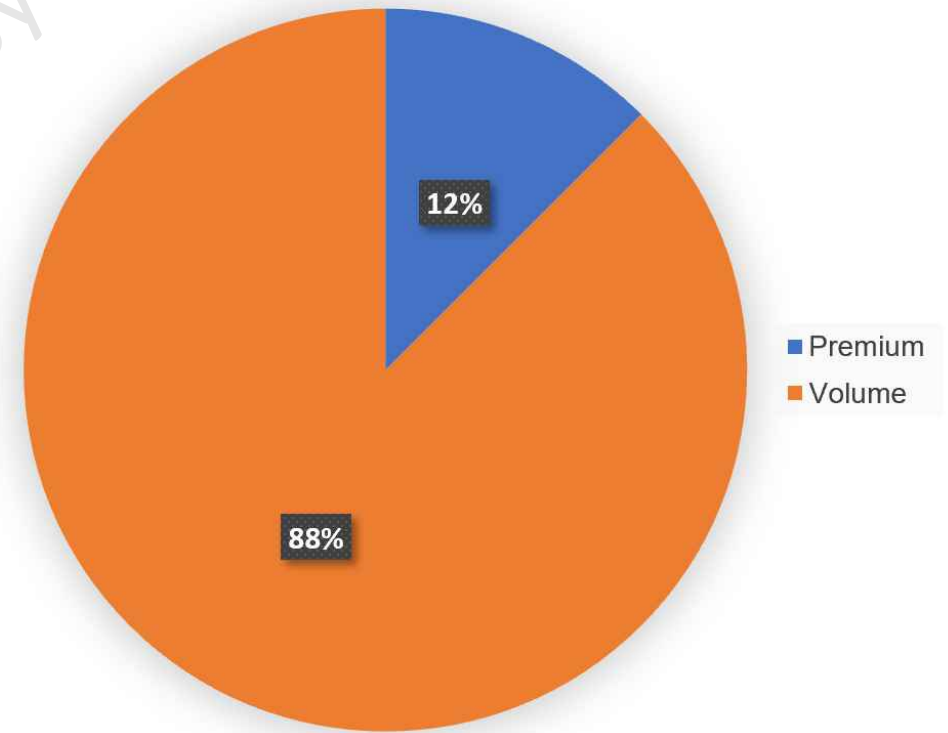
# Top line results – OEM Strategies – Premium vs Volume



# Top line results – BEV Growth Rate 2030 to 2033

BEV % share of Aust	2030	2033	% Growth in 3 years
Premium Market	61%	77%	26%
Volume Market	14%	21%	50%
Total Market	18%	25%	39%

Market Split Premium Vs Volume 2021



Released under FOI Act by DITRDCA



# Top line results – BEV by Market Segment 2030 and 2033



BEV % share of Segment	Premium		Volume	
	2030	2033	2030	2033
<b>Passenger Motor Vehicles</b> 22% of 2021 total market Split (Premium 21%MS) (Volume 79%MS)	63%	85%	14%	22%
<b>SUV</b> 53% of 2021 total market Split (Premium 15% MS) (Volume 85% MS)	59%	72%	15%	21%
<b>Light Commercials</b> 25% of 2021 total market Split (Premium 1%MS) (Volume 99% MS)	-	-	1%	2%

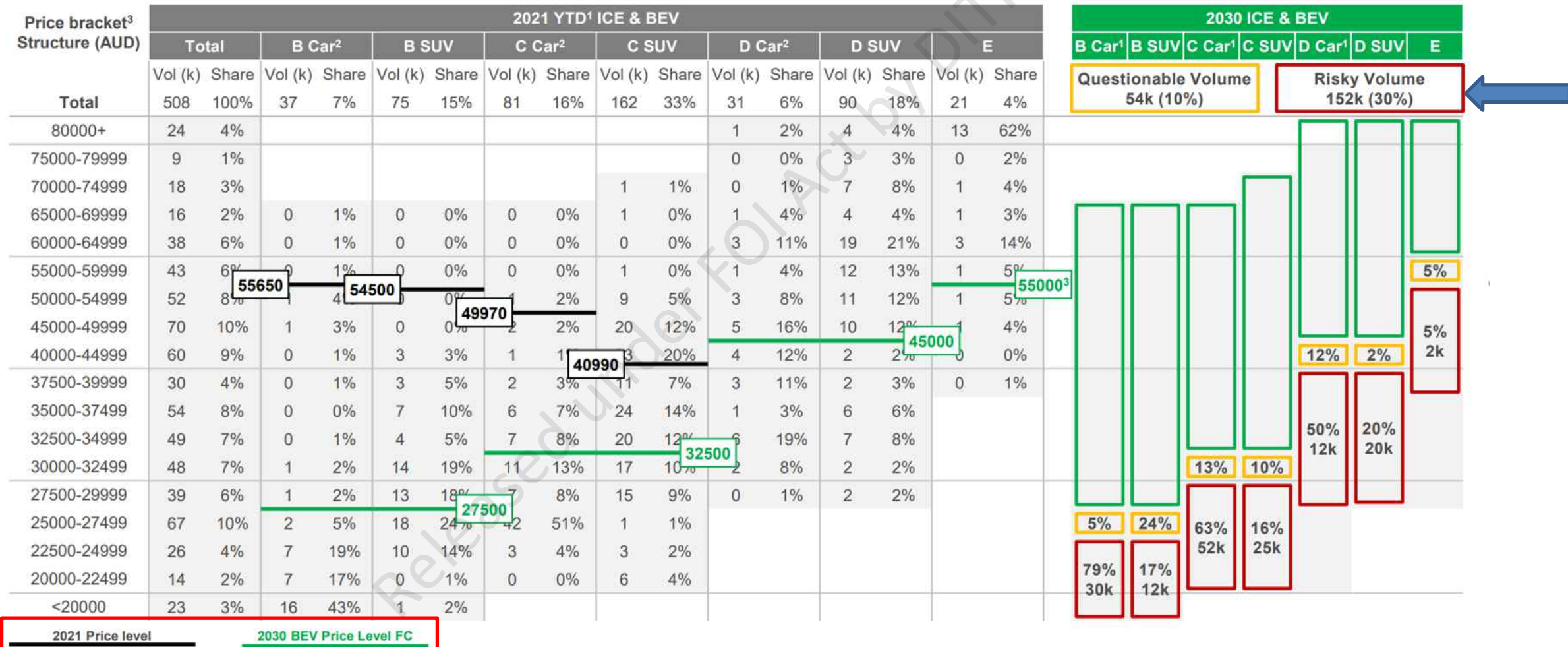
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# Volume Brand BEV Vehicle Pricing 2021 vs 2030

FCI 20-078

- 100% BEV mandate 2030 – at least 30% of volume brand customers purchase price increases by ~\$8,500 to \$17,000 for entry model



2021 Price level      2030 BEV Price Level FC

Note: 1) 2021 YTD includes 2021 January-September data. 2) C and D includes Hatchback, Sedan, Wagon, Coupe, Convertible, Roadster, MPV. 3) Price bracket refers to list price (with tariff, GST and LCT)

Safe price range      Questionable price range  
Risky price range      Opportunity price range

# Case Study – Midsize Car and SUV Volume Segment



PMV

2021	2030
ICE Entry Price <\$20,000	ICE Entry Price <\$20,000
BEV Entry Price \$49,900	BEV Entry Price \$32,500
97% of sales under BEV Price	76% of sales under BEV Price

- The price of an entry BEV midsize car will **decrease by \$17,400** between 2021 and 2030
- If 100% BEV mandate was put in place 76% of midsize car customers would need to increase budget by up to \$12.5k

SUV



2021	2030
ICE Entry Price \$20k to \$22.5k	ICE Entry Price \$20k to \$22.5k
BEV Entry Price \$40,900	BEV Entry Price \$32,500
59% of sales under BEV Price	26% of sales under BEV Price

- The price of an entry BEV midsize SUV will **decrease by \$8,490** between 2021 and 2030
- If 100% BEV mandate was put in place 26% of midsize SUVs customers would need to increase budget by up to \$10k



# Premium Brand BEV Vehicle Pricing 2021 vs 20230

FOI 28,076

- The premium market may not face strong volume issue if introducing strict electrification strategy before 20230; with around 10% of the volume expected to be influenced

Price bracket <sup>3</sup> Structure (AUD)	2021 YTD <sup>1</sup> ICE & BEV														2030 ICE & BEV									
	Total		B Car <sup>2</sup>		B SUV		C Car <sup>2</sup>		C SUV		D Car <sup>2</sup>		D SUV		E		B Car <sup>1</sup>	B SUV	C Car <sup>1</sup>	C SUV	D Car <sup>1</sup>	D SUV	E	
	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share	Vol (k)	Share
<b>Total</b>	92	100%	1	1%	1	1%	9	10%	22	24%	22	24%	15	16%	21	23%	Questionable Volume 6k (6%)		Risky Volume 5k (5%)					
120000+	14	15%					0	1%	0	0%	1	6%	1	7%	1	5%								
115000-119999	2	2%							0	0%	0	1%	1	2%	1	6%								
110000-114999	3	4%					0	2%	0	0%	0	2%	1	8%	2	7%								
105000-119999	2	2%					0	2%	0	0%	0	1%	0	1%	1	5%								
100000-104999	2	3%					0	3%	0	0%	0	1%	0	2%	2	7%								14%
95000-99999	2	3%					0	0%	0	1%	0	0%	0	3%	1	7%								
90000-94999	3	3%					0	5%	0	1%	0	1%	1	3%	1	6%								
85000-89999	4	4%					0	2%	1	4%	0	1%	2	15%	1	3%								
80000-84999	5	5%					0	1%	0	1%	3	15%	1	8%	0	2%								
75000-79999	5	6%					0	0%	0	0%	2	7%	2	12%	0	1%								15% 2k
70000-74999	10	11%					1	10%	1	6%	5	21%	3	17%	0	1%								
65000-69999	8	8%					1	9%	3	14%	2	7%	2	14%	0	0%								14%
60000-64999	7	7%			0	10%	0	5%	4	17%	1	5%	1	6%	0	1%								6%
55000-59999	14	15%					2	20%	5	21%	5	32%												
50000-54999	3	4%			1	48%	0	1%	3	12%														
45000-49999	5	6%	0	14%	0	15%	2	24%	3	12%														
40000-44999	2	3%			0	27%	1	15%	1	3%														
<40000	1	1%	0	86%																				

2021 Price level

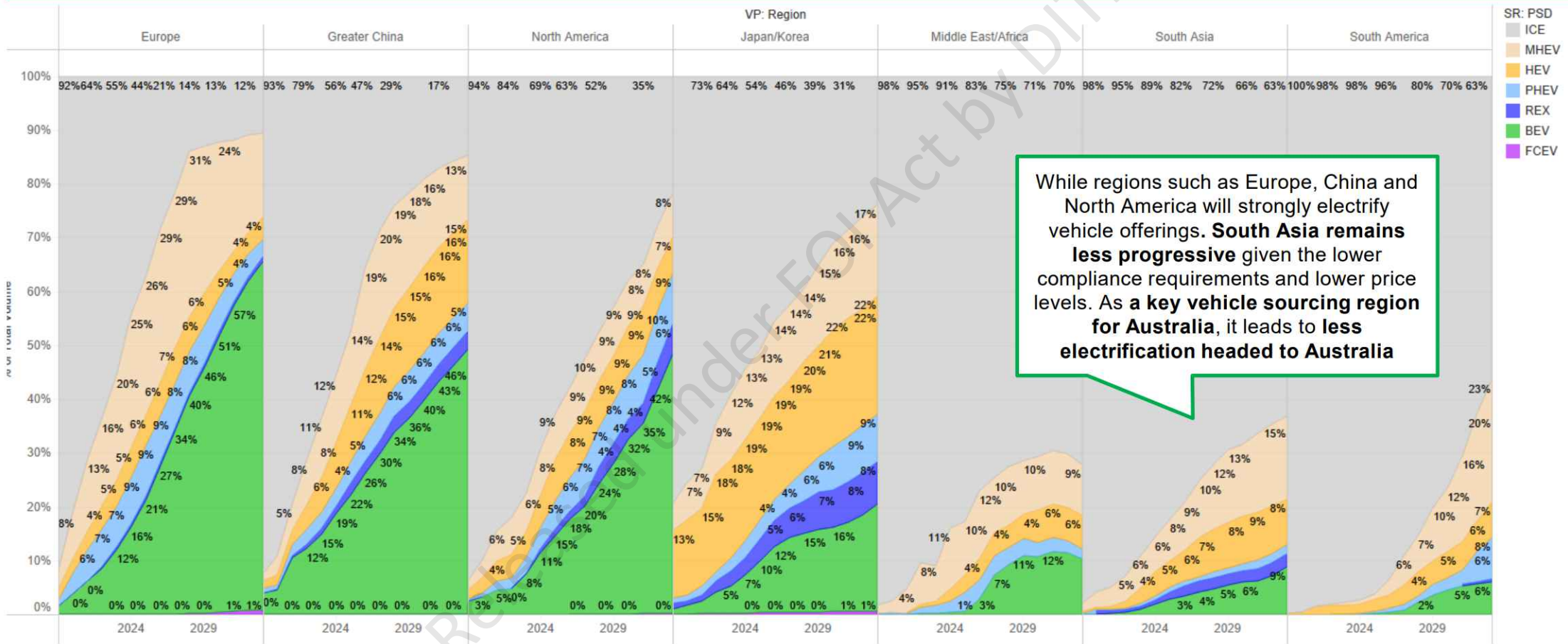
2030 BEV Price Level FC

# Regional Production – insights for Australia (RHD/LHD)

FOI 23 076

- The pace of electrification will differ by region

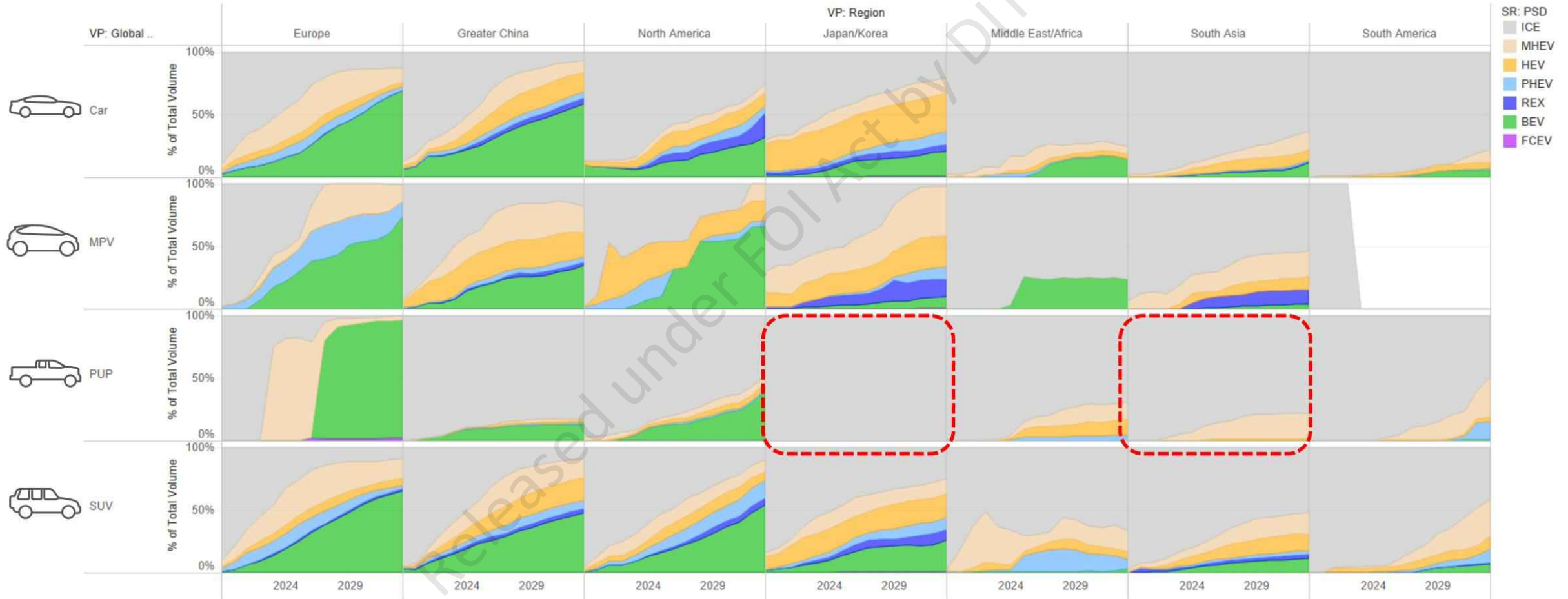
Global Powertrain Production Evolution by Propulsion System Design by Region (2019-2033)



Source: IHS Markit Powertrain Production Forecast October 2021 - (Passenger Car incl. LCV)

# Regional Production by Segment relevant to Australia

## Global Powertrain Production Evolution by Propulsion System Design by Region and Sub-Segment (2019-2033)



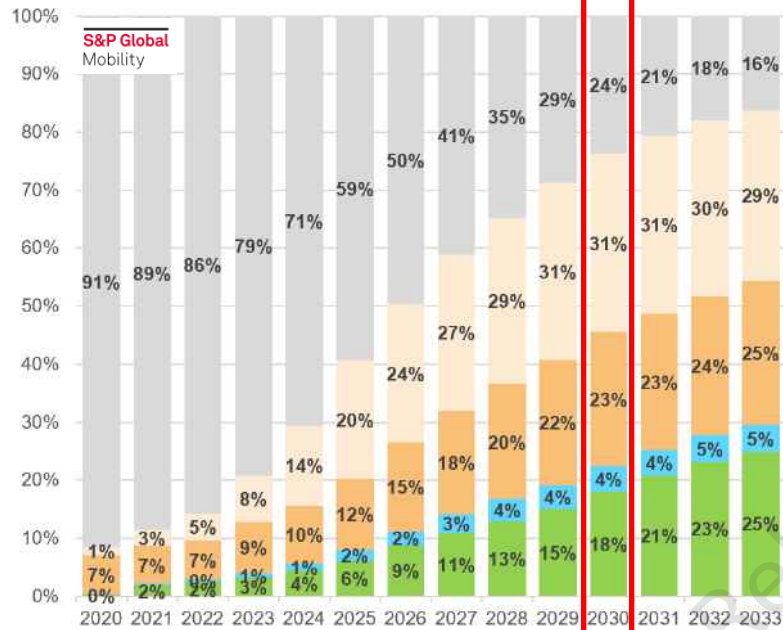
Source: IHS Markit Powertrain Production Forecast October 2021 - (Passenger Car incl. LCV)



# Top line results – Total Industry Volume by Powertrain share

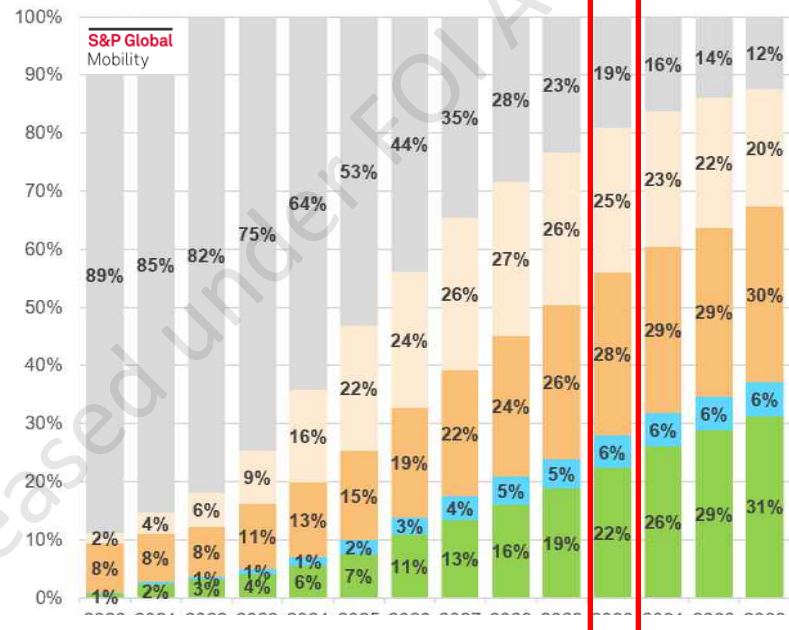
- **Total Car & Ute** - Independent from regulations, global electrification strategies will push down the pure ICE share to 59% in 2025 and 24% in 2030. At the same time, the BEV sales share will have the potential to grow to 18%.
- **Passenger cars** - Attractive BEV offers among are expected to drive the BEV sales share to 22% in 2030, along with additional 6% PHEVs for specific use cases. However, the leading PSD in 2030 will be HEV.
- **Utes** – Given the low regulatory pressure the RHD C-segment utes are expected to remain an ICE market with MHEV & HEV emerging over the forecast timeframe

TIV Sales by PSD, Sales Share



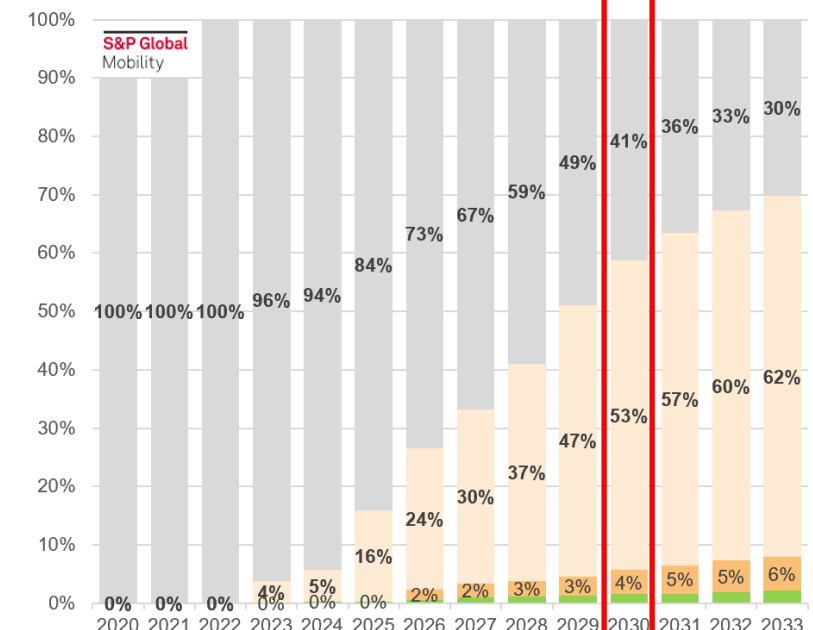
2030 Total Industry Volume 1.06m  
BEV 191k (18%)

Passenger Car Sales Shares by PSD



2030 PMV and SUV 835k  
BEV 184k (22%)

Pick-up Sales Shares by PSD

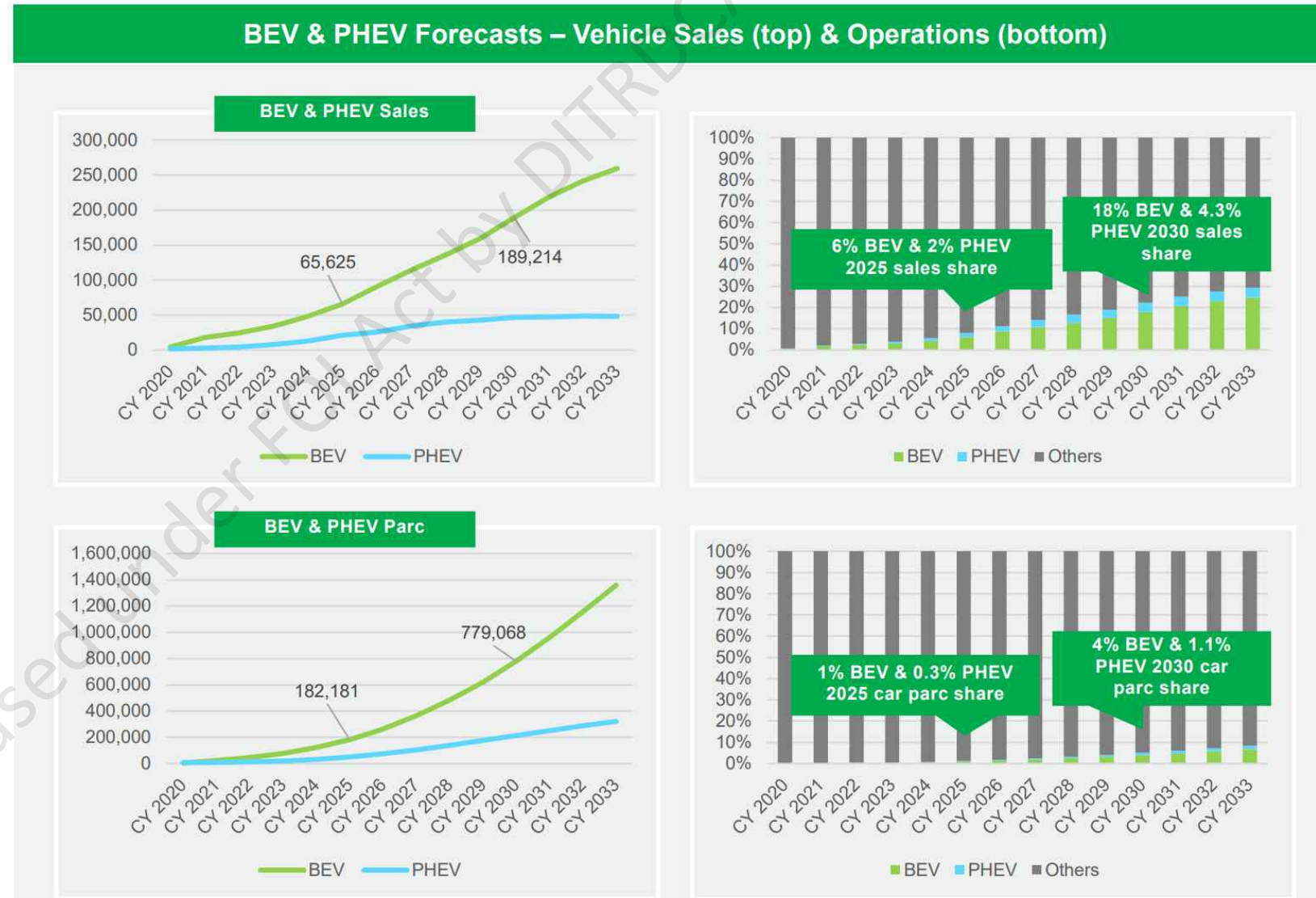


2030 Ute 220k  
BEV 2.6k (1.18%)

# Top line results – Charging Infrastructure

FCI 28-076

- S&P Global found, based on the powertrain forecast, that
  - In 2025, 177k home chargers and 6.8k public / semi-public chargers are needed.
  - In 2030, 724k home chargers and 25.8k public / semi-public chargers are needed.







- Nationally consistent/Federally led vehicle CO<sub>2</sub> policy
- Implement a **mandatory new car CO<sub>2</sub> regulation**.
- Seek ZLEV policy including **obtaining incentives** in the following order:
  1. Public charging and hydrogen refuelling
  2. Fleet and Private charging and hydrogen refuelling
  3. Non-financial ZLEV incentives (access to transit lanes, free parking, free charging)
  4. Mandated government fleet ZLEV procurement targets
  5. Purchase Incentives
- Accelerate the adoption of world class, international **fuel quality** standards

**Deloitte.**



Driving Australia to Net Zero

**Vehicle Emission Forum**

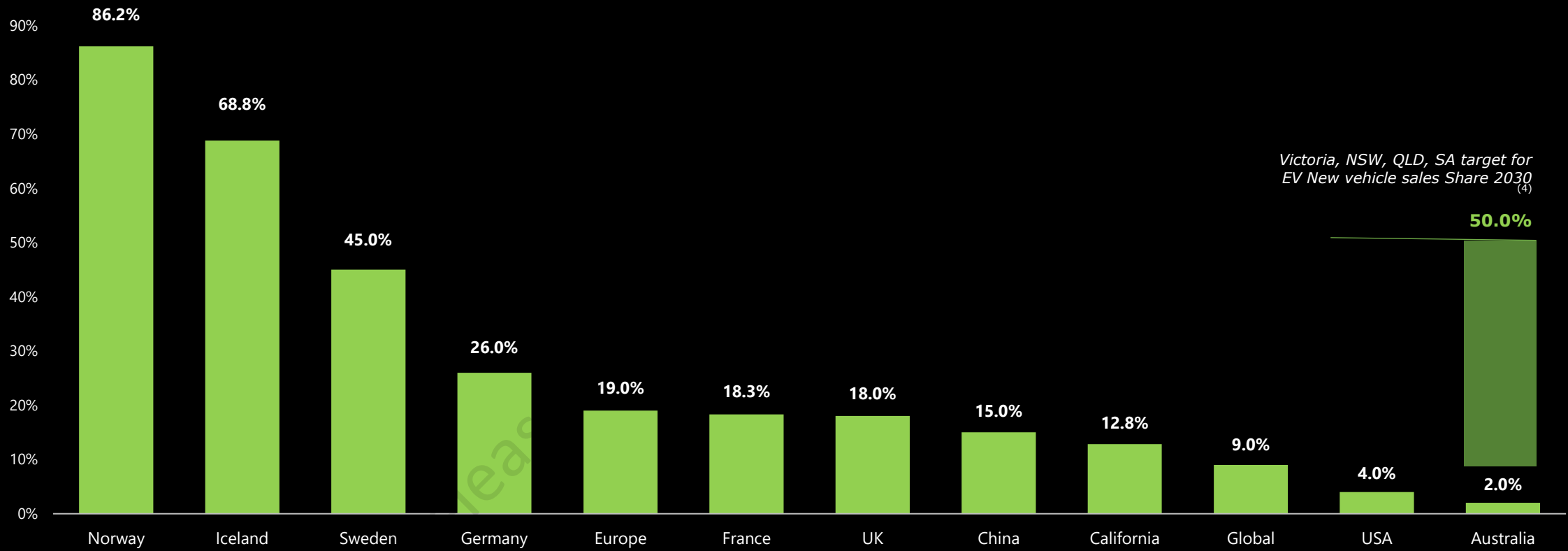
Canberra, Australia | September 2022

**Andrew Moore**  
Deloitte Motor Industry Services



# Setting the Scene...

## EV Share % 2021



Victoria, NSW, QLD, SA target for EV New vehicle sales Share 2030<sup>(4)</sup>

Net Zero Target<sup>(3)</sup>

2030

2040

2045

2045

2050

2050

2060

2050

2050



# Topics to Cover



**Unique product preferences**



**EV Market Share Scenario**



**EV Product availability**



**Charging Infrastructure**











































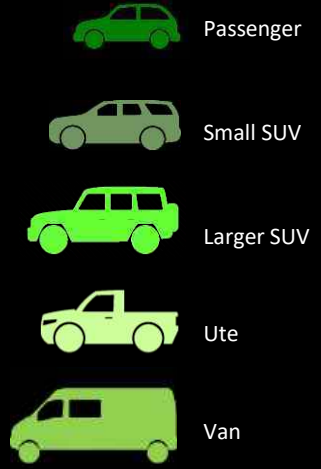
**EV Price premiums**



**Policy Considerations**

# Top 10 Models by Country

	Norway	Germany	USA	Australia
1	Tesla Model Y 	VW Golf 	Ford F-Series 	Toyota Hilux 
2	Tesla Model 3 	VW Tiguan 	Ram Pickup 	Ford Ranger 
3	Skoda Enyaq 	VW Passat 	Chevrolet Silverado 	Toyota RAV4 
4	Toyota RAV4 	VW T-Roc 	Toyota RAV4 	Mazda CX-5 
5	Audi e-tron 	Opel Corsa 	Honda CR-V 	Toyota Corolla 
6	Volkswagen ID.4 	Fiat Ducato 	Toyota Camry 	Isuzu D-Max 
7	Hyundai IONIQ 5 	Skoda Octavia 	Nissan Rogue 	Mitsubishi Triton 
8	Ford Mustang Mach-E 	BMW 3ER 	Toyota Corolla 	Hyundai i30 
9	Volkswagen ID.3 	VW Up 	Honda Civic 	Toyota Landcruiser 
10	Nissan Leaf 	Mini - Mini 	Toyota Highlander 	Kia Cerato 





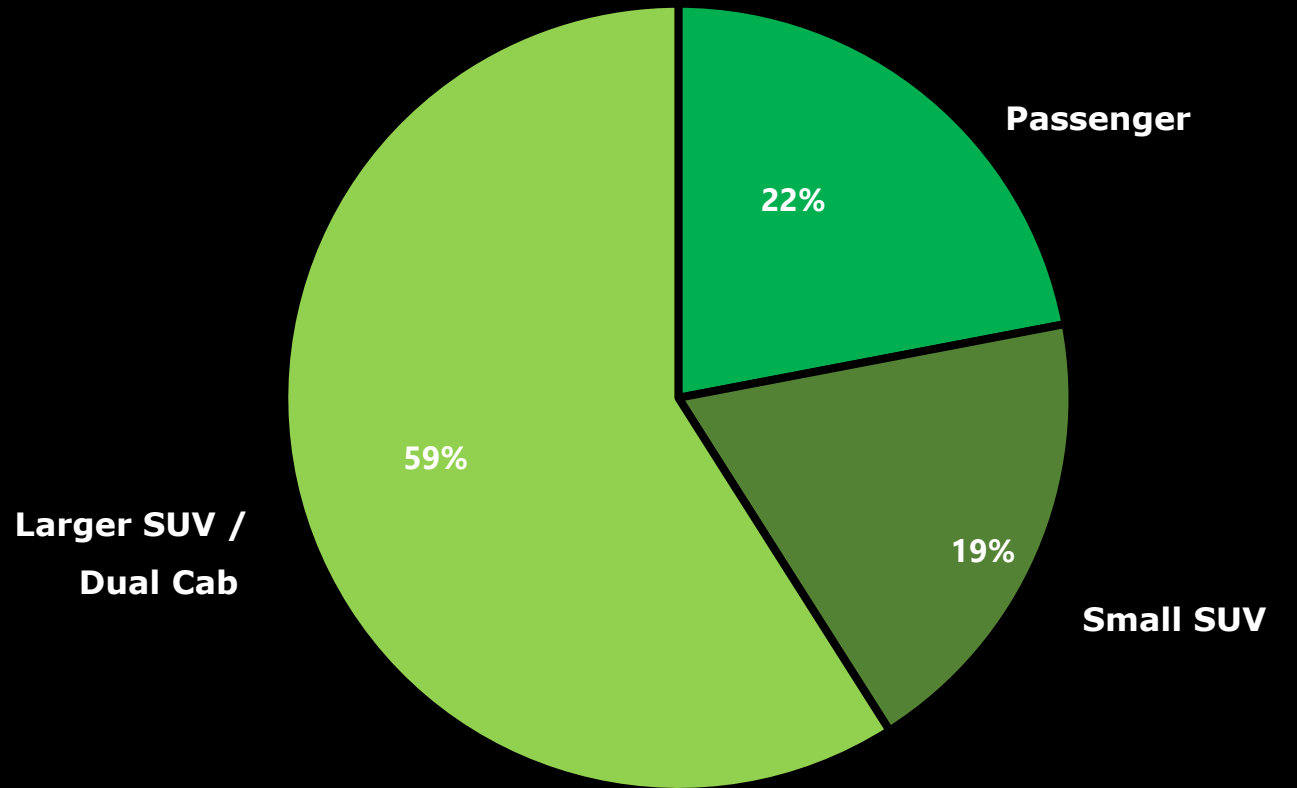
# Product Availability



# 59%

Of vehicles sold in Australia are Larger SUV or Dual Cab, with little EV product available

Segment % NV Sold (June 2022)





# Price Premium



**65%**

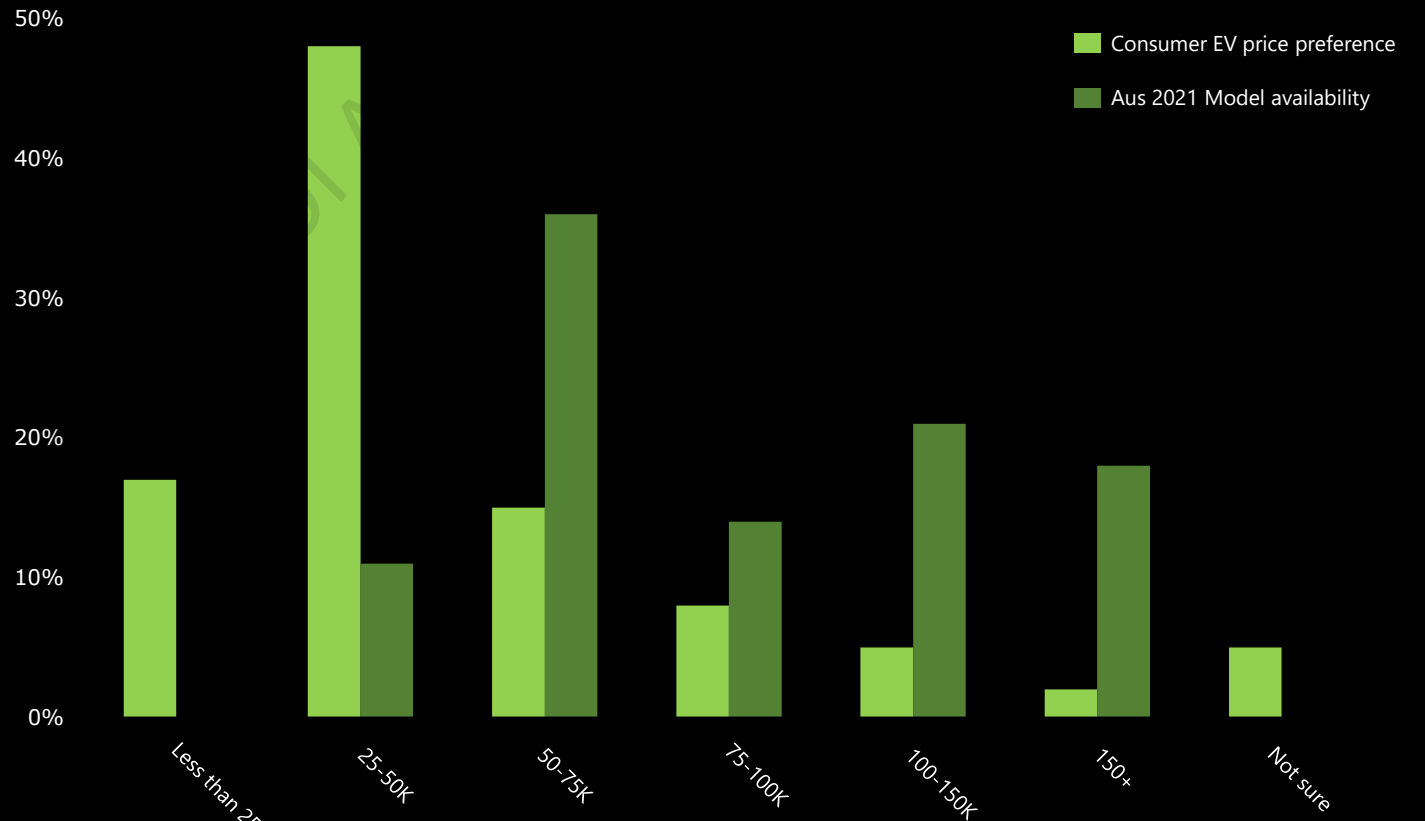
of consumers want an EV under \$50,000



**88%**

of EVs currently available\* are priced over \$50,000

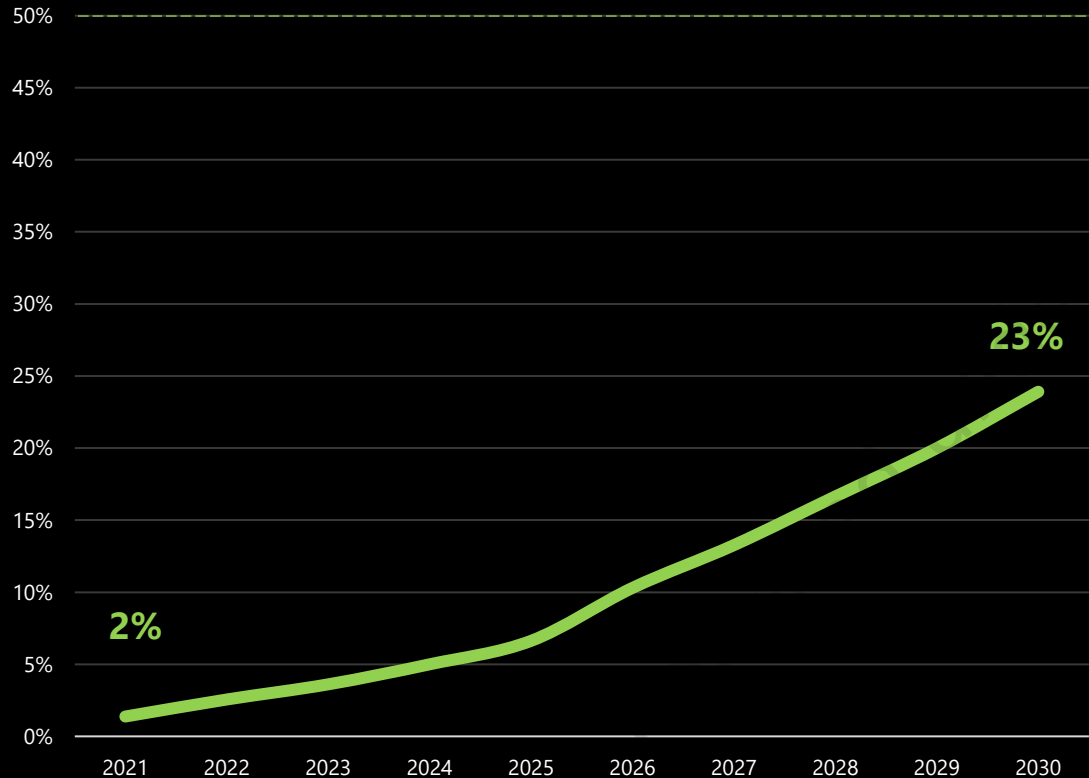
**Consumer EV Price Point Preference**





# EV Market Share Scenario

## 2030 @ 23% ZEV Share of New Vehicle Sales



## Scenario Assumptions

- Low volumes of EV Dual cab utes and large SUV due to lack of RHD model availability
- Lack of low priced electric vehicles impacting penetration in small passenger segment for volume brands
- Greater EV sales in small and medium SUV segments – with earlier product availability in small SUV segment
- Tesla volume circa 70,000 units in 2030 – a Top 5 brand





# Scenario Assumptions

Higher EV share brands

## Tesla

EV **100%** of total sales 2030  
(70,000u)

## Hyundai

EV **39%** of total sales 2030  
(28,846u)

## Kia

EV **29%** of total sales 2030  
(19,990u)

## Volkswagen

EV **33%** of total sales 2030  
(13,844u)

Lower EV share brands

## Toyota

EV **18%** of total sales 2030  
(41,480u)

## Ford

EV **7%** of total sales 2030  
(4,737u)

	2021 sales	% Split	2030 EV Volume Assumption	EV Segment Share
Small Passenger	33,551	15%	8,000	24%
Passenger	13,081	6%	8,000	61%
<b>Small SUV</b>	<b>14,406</b>	<b>6%</b>	<b>7,000</b>	<b>49%</b>
<b>Medium SUV</b>	<b>35,751</b>	<b>16%</b>	<b>12,000</b>	<b>34%</b>
Large SUV	48,797	22%		0%
Dual Cab	65,078	29%	3,000	5%
<b>Large SUV / Dual Cab</b>		<b>51%</b>		
Van	12,153	5%	3,000	24%

	2021 sales	% Split	2030 EV Volume Assumption	EV Segment Share
Small Passenger	1,077	2%	200	19%
Passenger	27	0%		0%
<b>Small SUV</b>	<b>3,218</b>	<b>5%</b>	<b>2,000</b>	<b>62%</b>
Medium SUV	1,673	2%	500	30%
Large SUV	8,359	12%		0%
Dual Cab	50,279	70%		0%
<b>Large SUV / Dual Cab</b>		<b>82%</b>		
<b>Van</b>	<b>3,919</b>	<b>5%</b>	<b>2000</b>	<b>52%</b>
Performance	2,827	4%		0%



# Key Take-Aways & Considerations



**59%**

Of vehicles sold in Australia are Larger SUV or Dual cab with little EV product available



Increase product availability of electric large SUVs and Dual Cabs



**65%**

Of consumers want an EV under \$50k



Support to decrease cost of low end EV's



**88%**

Of EV's currently available are over \$50,000



Increase availability of EV's under \$50,000

## CO<sup>2</sup> Emissions Target

- CO<sup>2</sup> Emissions Target driving vehicle brands to bring in more electrified product to reduce emissions

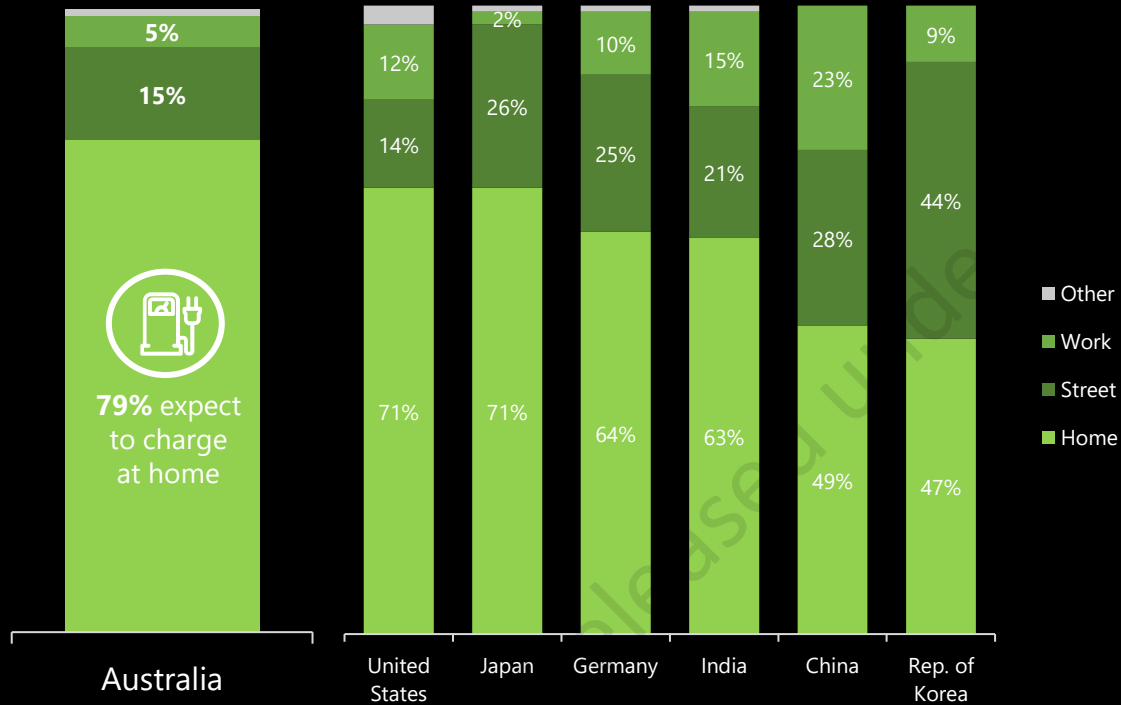
## Targeted Incentives

- Instant Asset Write off for PHEV and BEV supporting Dual Cab and Large SUV product availability
- Increase subsidy (\$6k) for BEV under \$45k supporting availability of lower price EVs and EV affordability for low income earners

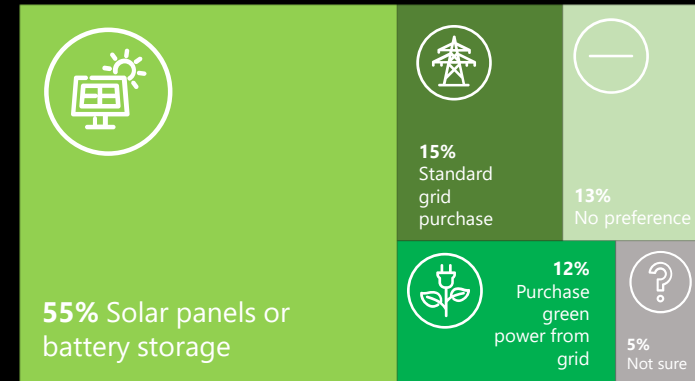


# Home Charging Infrastructure

## Location People Expect to Charge their EV



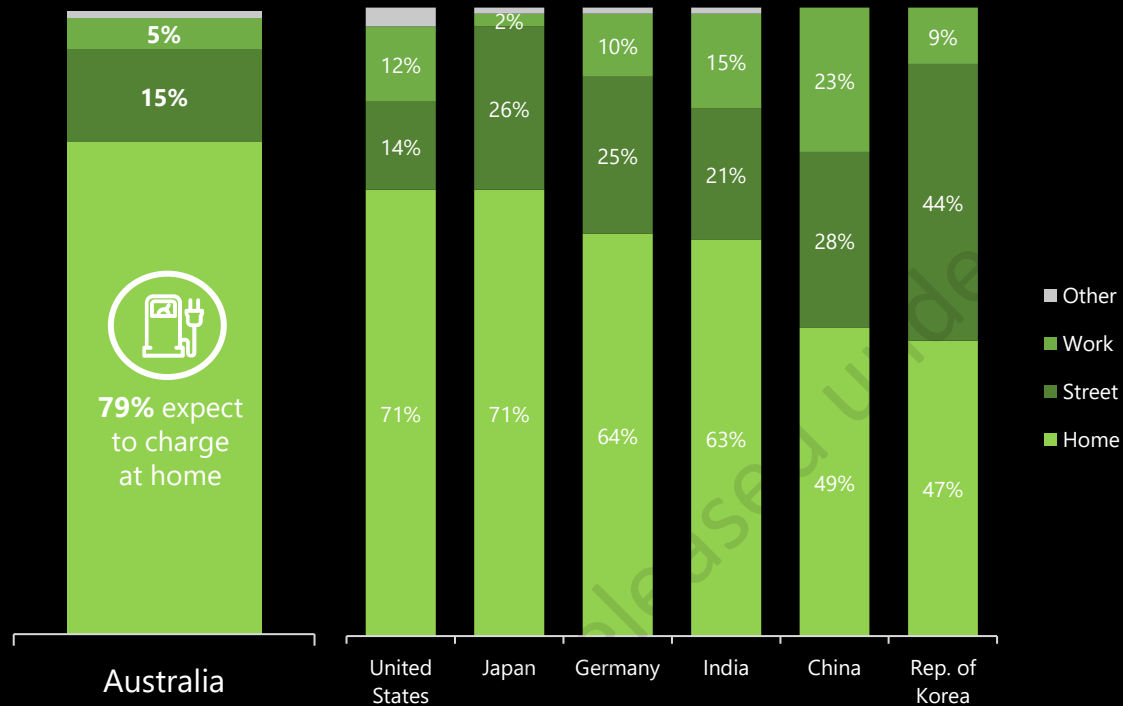
## Australian Consumer Energy Sourcing Preference for EV Charging





# Home Charging Infrastructure

## Location People Expect to Charge their EV



## Private Charging Infrastructure Support Overseas

- **Norway:** Grants for EV charger home installation between 20-50% of purchase & installation cost
- **Sweden:** Charge the car grant – covers cost of up to 50% of the EV charger up to a maximum \$1,500 per charge point (individuals) or \$2,360 for companies
- **Germany:** A €900 incentive available per charging point for the purchase and installation of a private EV charger.
- **UK:** Home/Workplace Charger Grant of up to £350 on the purchase and installation of an EV charger for your home or workplace.



# Future Australian Vehicle Fleet

**2030 @ 23%**  
ZEV Share of New Vehicle Sales

**ZEV UIO 1.1 million**  
Hybrid/ICE UIO circa 19 million\*

**2030 @ 38%**  
ZEV Share of New Vehicle Sales

**ZEV UIO 2.06 million**  
Hybrid/ICE UIO circa 18 million\*

**2030 @ 57%**  
ZEV Share of New Vehicle Sales

**ZEV UIO 2.9 million**  
Hybrid/ICE UIO circa 17 million\*



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# Panel Discussion

**Tony Weber, FCAI**

**James Voortman, AADA**

**Michael Bradley, AAA**

**Richard Dudley, MTAA**

**Rohan Martin, NALSPA**

**Stuart Charity, AAAA**



**FEDERAL  
CHAMBER OF  
AUTOMOTIVE  
INDUSTRIES**



**AUSTRALIAN  
AUTOMOTIVE  
DEALER  
ASSOCIATION**



**Australian  
Automobile  
Association**



**MOTOR TRADES  
ASSOCIATION  
OF AUSTRALIA**

**NALSPA**



**AUSTRALIAN AUTOMOTIVE  
AFTERMARKET ASSOCIATION**



**Australian Government**  
**Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts**

**To: Marisa Purvis-Smith (for noting)**

**cc:** Andrew Madsen

**MEETING:** Meeting with the Tony Weber, Chief Executive of the Federal Chamber of Automotive Industries

**Timing:** For meeting on 14 September 2022

**Venue:** Marisa’s office

<b>Recommendations:</b>	
1. That you note the information in this brief.	<b>Noted / Please Discuss</b>
<b>Marisa Purvis-Smith</b>	Date:
<b>Comments:</b>	

**Meeting with:** Tony Weber, Chief Executive of the Federal Chamber of Automotive Industries

**What do the attendees want:**

To brief the department on the FCAI commissioned S&P Global research on decarbonisation of the Australian automotive fleet.

**What does the department want:**

To hear the attendees views about the S&P research and build a productive relationship with a key stakeholder.

**Key Points:**

1. Tony Weber, Chief Executive of the Federal Chamber of Automotive Industries (FCAI) wishes to brief the Department on research on decarbonising the Australian vehicle fleet (presentation at **Attachment A**). The research was presented at a Vehicle Emissions Forum held at Parliament House on 6 September, attended by the Minister for Climate Change and Energy, the Hon Chris Bowen MP, Senator the Hon Bridget McKenzie, and vehicle industry and EV groups.
2. The FCAI has also issued its policy principles (at **Attachment B**) for transport decarbonisation, which includes a national emissions reduction target for car-makers, greater investment in public,



private and fleet charging and hydrogen refuelling, free parking, access to transit lanes and government fleet procurement targets.

3. The FCAI implemented a voluntary fuel efficiency standard for its members, which seeks a 4% per annum emissions reduction for cars and light SUVs and 3% per annum reduction for 4WDs and utes, with generous credits available. There is no compliance mechanism and the voluntary standard has not provided sufficient incentive for global manufacturers to provide EV and the latest fuel saving internal combustion engine technology to Australia.
4. The FCAI was sharply criticised following the publication of a leaked FCAI document which was labelled “the car industry’s secret emissions plan [to] slow electric vehicle uptake”. The lobbying and public relations strategy is reported to include targeted briefings, a green paper for government, a “thought leadership roadshow and a targeted media campaign, seeking to preserve petrol and hybrid vehicles for decades to come. The news story is at **Attachment C**.

### **FCAI presentation**

5. We have previously been briefed by the FCAI on a version of the S&P report, but not an accompanying Deloitte report. Without access to the underlying assumptions of the work we have not been able to assess the strength of the FCAI’s claims. It is unclear if the forecasts reflect existing policy settings, or forecasts of likely domestic and international policy approaches.
6. FCAI forecasts a considerable increase in EV uptake in premium brands, rising to approximately 60% of vehicle sales in 2030, however “volume brand” EV sales forecasts are predicted to be modest, at 14% of vehicle sales in 2030. FCAI does not provide an overall EV uptake forecast for 2030. Climate groups consistently argue that the Government’s 2050 net zero goal can only be reached with 100% battery EVs by 2035 (no new hybrid or internal combustion engine vehicles).
7. FCAI is concerned about any policy that could include a mandate for 100% battery EVs on a particular date. Bans on internal combustion engine sales are being considered or implemented in a number of countries and jurisdictions, typically taking effect around 2030-2035. Minister Bowen has publicly stated that a ban on ICE vehicles is not currently under Government consideration.
8. FCAI forecasts considerable purchase price increases for volume brand vehicle customers if they are forced to switch to an EV. It is unclear what EV technology improvements are included in this forecast and it does not include the considerably lower running costs for a battery EV compared to an ICE vehicle. For example, Climateworks modelling indicates that a battery EV would have total running costs \$19,500 less than an internal combustion engine vehicle.
9. FCAI states that South Asia is a key vehicle sourcing location for vehicles sold in Australia, due to the limited number of right hand drive markets, but does not discuss EV uptake in the UK, a substantial right hand drive market which appears to have generous supply of EVs from European manufacturers.

### **Sensitivities**

10. While FCAI has been calling for government to implement a mandatory fuel efficiency standard, the level of emissions reduction supported by the FCAI may be lower than government is contemplating, and is clearly lower than climate and EV groups consider necessary to support the government’s 2030 and 2050 emissions reduction targets.
11. FCAI may advise that improved fuel quality, and potentially Euro 6 noxious emissions standards are required before a fuel efficiency standard can commence. Reduced sulfur levels in petrol will commence from December 2024, but further work is required on aromatics levels in petrol. The Department of Climate Change, Energy, the Environment and Water are working on a fuel quality

standard to support Euro 6d introduction. Timeframes have not been settled or announced, but we do not anticipate these commencing until mid-2025.

12. Our view is there is not an intrinsic or compelling technical link between fuel quality/Euro 6d emissions standards and a fuel efficiency standard commencing, however some flexibility measure in a fuel efficiency standard may be facilitated to allay these concerns.

## Background

### FCAI policy objectives

Mr Weber may speak to the FCAI's overarching policy objectives, as they are included in the presentation. These are broadly consistent with government policy, with the exception of access to transit lanes and free parking for EVs, which are matters for state and territory governments, and we consider raise equity sensitivities.

- Nationally consistent/federally led vehicle CO<sub>2</sub> policy
- Implement a mandatory new car CO<sub>2</sub> regulation
- Seek zero and low emission vehicle (ZLEV) policy including obtaining incentives in the following order:
  1. Public charging and hydrogen refuelling
  2. Fleet and private charging and hydrogen refuelling
  3. Non-financial ZLEV incentives (access to transit lanes, free parking, free charging)
  4. Mandated government fleet ZLEV procurement targets
  5. Purchase incentives
- Accelerate the adoption of world class, international fuel quality standards.

## Attachments

Attachment A – FCAI presentation - Driving Australia to Net Zero – Vehicle Emissions Forum

Attachment B - FCAI – driving lower carbon emissions three-point plan

Attachment C – Sydney Morning Herald – Revealed: Car industry's secret emissions plan would slow electric vehicle uptake, 8 August 2022

Name: s47F  
Position: Acting Assistant Secretary  
Division: Sustainable Transport and Maritime  
Safety Review Branch  
Ph: s47F  
Mob: s47F  
Date: 12 September 2022

Contact Officer: s47F  
Section: Sustainable Transport Section  
Ph: s47F

**Archived:** Monday, 30 January 2023 3:17:57 PM

**From:** [GvG](#)

**Mail received time:** Thu, 8 Sep 2022 10:31:36

**Sent:** Thu, 8 Sep 2022 10:31:33

**To:** s47F s47F s47F s47F s47F s47F

**Cc:** [Sustainable Transport](#)

**Subject:** FW: Presentations from 'Driving Australia to Net Zero - Vehicle Emissions Forum' - 6 September 2022

[SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[Vehicle\\_Emissions\\_Forum.pdf](#);

---

OFFICIAL

FYA

Thanks,

s4  
7F

OFFICIAL

---

**From:** Tony Weber <tony.weber@fcai.com.au>

**Sent:** Thursday, 8 September 2022 10:00 AM

**Subject:** Presentations from 'Driving Australia to Net Zero - Vehicle Emissions Forum' - 6 September 2022

On Tuesday 7 September 2022, Parliamentarians, automotive industry peak bodies and other stakeholders attended the 'Driving Australia to Net Zero - Vehicle Emissions Forum' at Parliament House, Canberra.

The forum was an opportunity for the peak bodies representing the automotive sector to address the opportunities and challenges facing regulators, the industry and Australian motorists on the issue of emissions reduction from motor vehicles and a pathway towards electrification.

Minister for Climate Change and Energy the Hon Chris Bowen reinforced the seriousness of the issue and his commitment to the process, calling for a sensible conversation around the Government's discussion paper due to be released this month.

Shadow Minister for Infrastructure, Transport and Regional Development Senator the Hon Bridget McKenzie told the group she was encouraged that the automotive sector had come together to address these challenges that were relevant to Australians in all parts of the country.

In the context that evidence should influence sound policy, please find attached presentations delivered by FCAI Chief Executive, Tony Weber and Director Deloitte Automotive Services, Andrew Moore.

To coincide with the forum, the automotive industry peak bodies released [Mobility Inspired by Sustainability](#). This document presents their agreed position to achieve the orderly transition to the electrification of Australia's future mobility and transport.

Collaboration and conversation is part of progressing this issue. Should you have any questions or wish to discuss aspects of the forum and the research presentations in more detail, please contact Mathew Hobbs, FCAI Director Policy and Advocacy at [matthew.hobbs@fcai.com.au](mailto:matthew.hobbs@fcai.com.au) or 0419 608 845.

Regards

Tony

**Tony Weber**

Chief Executive

T: 02 6229 8212

F: 02 6248 7673

E: [tony.weber@fcai.com.au](mailto:tony.weber@fcai.com.au)

	<b>FEDERAL CHAMBER OF AUTOMOTIVE INDUSTRIES</b>
	LEVEL 1, 59 WENTWORTH AVENUE KINGSTON ACT 2604 AUSTRALIA P: + 61 2-6247 3811 F: + 61 2-6248 7673 <a href="http://WWW.FCAI.COM.AU">WWW.FCAI.COM.AU</a>

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## Australian Government

Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts

Secretary  
Jim Betts

EC22-000817

Mr Matthew Callachor  
President & Chief Executive Officer  
Toyota Motor Corporation Australia Limited  
GPO Box 2006  
MELBOURNE VIC 3001

Dear Mr Callachor

Thank you for your kind letter of 26 August regarding your recent meeting at the Department of Infrastructure, Transport, Regional Development, Communications and the Arts. I apologise that I was unable to attend and thank you for taking the time to write on matters of importance to Toyota.

I welcome your interest in the development of the National Electric Vehicle Strategy and Toyota's efforts to date to develop a pathway towards carbon neutrality. The Department of Climate Change, Energy, the Environment and Water will lead stakeholder consultation on the National Electric Vehicle Strategy. If you have not already done so, I encourage you to register your interest in this process at: [NEVS@industry.gov.au](mailto:NEVS@industry.gov.au).

The development of a National Electric Vehicle Strategy is an opportunity to explore options and details about how an Australian fuel efficiency standard could work and the benefits of a standard. My Department will be lead consultation on fuel efficiency standards in the coming months and how best to design any fuel efficiency standards in Australia to meet industry and consumer needs now and into the future. The Sustainable Transport section can be contacted for updates on this consultation at: [sustainable.transport@infrastructure.gov.au](mailto:sustainable.transport@infrastructure.gov.au).

The Specialist and Enthusiast Vehicles (SEVs) criteria were drafted and tested in consultation with industry before the Road Vehicle Standards (RVS) legislation was implemented. These criteria balance the competing interest of industry without providing scope for the ongoing importation of vehicles that are already made locally.

The Department understands that the Road Vehicle Regulator (ROVER) system needs to be an efficient tool for businesses, and the Department will continue to work closely with peak bodies and all ROVER users to better understand their specific requirements. We are planning further ROVER enhancements and will continue to take feedback and industry ideas through Road Vehicle Standards industry forums.

Yours sincerely

Jim Betts

September 2022

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Australian Government

Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts

**COVER SHEET**

**MARISA PURVIS-SMITH | DEPUTY SECRETARY | TRANSPORT GROUP**

Document Title: *Toyota Australia's Pathway towards Carbon Neutrality*

Date to Marisa: =Friday 23/09/2022

PDMS/Brief No.: EC22-000817

Urgent  Due Date: \_\_\_\_\_ Routine  Due Date: \_\_\_\_\_

Reason for urgency: \_\_\_\_\_

Cleared through FAS: Yes / No (circle) Richard / Julia / Andrew (circle)

Contact name: s47F [Redacted]

Number: 02 s47F [Redacted]

**Comments:**

Meeting with Toyota attended by Marisa on Tuesday 2 August 2022. Briefing was provided under EC22-000676.

*thx.  
see comment on draft letter.  
Have me provided the letter to Lisa la Rance to  
add to the comments on imports. (current system).  
MP-S. 23/9*

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**Australian Government****Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts****Secretary  
Jim Betts****EC22-000817**

Mr Matthew Callachor  
President & Chief Executive Officer  
Toyota Motor Corporation Australia Limited  
GPO Box 2006  
MELBOURNE VIC 3001

Dear Mr Callachor

Thank you for your kind letter of 26 August regarding your recent meeting at the Department of Infrastructure, Transport, Regional Development, Communications and the Arts. I apologise that I was unable to attend and thank you for taking the time to write on matters of importance to Toyota.

I welcome your interest in the development of the National Electric Vehicle Strategy and Toyota's efforts to date to develop a pathway towards carbon neutrality. The Department of Climate Change, Energy, the Environment and Water will lead stakeholder consultation on the National Electric Vehicle Strategy. If you have not already done so, I encourage you to register your interest in this process at: [NEVS@industry.gov.au](mailto:NEVS@industry.gov.au).

The development of a National Electric Vehicle Strategy is an opportunity to explore options and details about how an Australian fuel efficiency standard could work and the benefits of a standard. My Department will be lead consultation on fuel efficiency standards in the coming months and how best to design any fuel efficiency standards in Australia to meet industry and consumer needs now and into the future. The Sustainable Transport section can be contacted for updates on this consultation at: [sustainable.transport@infrastructure.gov.au](mailto:sustainable.transport@infrastructure.gov.au).

The Specialist and Enthusiast Vehicles (SEVs) provisions were drafted to give effect to the Australian Government's policy position on increasing choice and competition in the Australian automotive market. To balance the risk introduced by lifting vehicle supply caps, the legislative framework provides for increased regulatory oversight of these vehicles. The expectation of this policy approach was that the increased regulatory requirements will prevent this pathway from being feasible alternative to a vehicle type approval.

The Department will continue to monitor the provision of vehicles through the concessional pathway and will assess whether the policy intent has been achieved during a post-implementation review of the framework, scheduled to commence in mid-2024.

The Department understands the ROVER system needs to be an efficient tool for businesses, and is continuing to work closely with peak bodies and ROVER users to develop additional functionality and make further performance improvements to deliver a better user experience.

Yours sincerely

Jim Betts

September 2022

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**INFRASTRUCTURE INVESTMENT  
ROAD AND VEHICLE SAFETY DIVISION  
FIRST ASSISTANT SECRETARY COVER SHEET**

**PDMS NUMBER:**

EC22-000817

**SUBJECT/TITLE:**

Input for Secretary letter to Toyota (STP coordinating)

**ACTION REQUIRED?**

Clear proposed input/amendments

**DATE & TIME ACTION IS REQUIRED:**

4pm Thursday 29 September 2022

**DATE & TIME BRANCH/TEAM RECEIVED:**

4pm Tuesday 27 September 2022

**APPROVED BY?**

Name: Melissa Cashman

Contact: s47F

**PROOF READ BY?**

s47F

**ADDITIONAL COMMENTS:**

**WHAT? WHY? WHO? WHEN?**

STP has developed a letter for the Secretary's signature. The letter is in response to a letter from Toyota, part of which reiterates Toyota's longstanding objections to the RVSA SEVs Scheme.

STP is seeking our input on proposed working for the response. Our suggested input is consistent with previous departmental and Ministerial responses to these concerns.

For your clearance.

**FAS COMMENTS**

**FAS APPROVAL:**

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

**ACTION**

- Cleared
- Amended and Sent
- Amended and please send back to me for additional revision

**What do the attendees want:**

To discuss the Government's National Electric Vehicle Strategy and plans to consider a fuel efficiency standard for light vehicles. Mr Callachor may reiterate concerns about the concession arrangements in the Road Vehicle Standards (RVS) legislation which allow third-parties to import and supply road vehicles in Australia.

**What does the department want:**

Be receptive to any ideas about the National Electric Vehicle Strategy and advise the current approach to manage the risks raised in relation to the RVS legislation.

**Sensitive and Critical Information**

Like other Federal Chamber of Automotive Industries (FCAI) members, Toyota has sought to limit the ability of third-parties (e.g. Registered Automotive Workshops) to provide road vehicles using the concessional pathway in the RVS. The FCAI does not represent all businesses in the Australian automobile industry and the RVS has been created to ensure appropriate competition in addition to ensuring the safety and quality of road vehicles provided in Australia.

**Key points***RVS Legislation settings*

1. The NEVS discussion paper seeks views on whether RVS legislation could be relaxed to allow a wider range of new and second-hand electric vehicles to be independently imported. Some stakeholders have proposed this as a way to bring more affordable electric vehicles to the Australian market.
2. Mr Callachor may use this to reiterate Toyota's longstanding concerns about the safety and quality of road vehicles that current receive concessional RAV entry approvals under the RVS legislation, which are provided by a party other than the original manufacturer. They consider the existing thresholds for specialist or enthusiast vehicles (SEVs) are too open and limit the rights of manufacturers to decide what vehicles to provide in Australia.
3. The RVS legislation provides Australian consumers with a choice in road vehicles that meet certain safety, anti-theft and environmental emissions standards.
4. The legislation ensures quality by compelling third-party providers, including Registered Automotive Workshops, to ensure imported vehicles meet applicable standards and to meet recall obligations for the vehicles they provide. The SEVs criteria promote choice without generally allowing third parties to parallel import vehicles that are already available in Australia.
5. Mr Callachor may also raise concerns regarding the decision to extend the RVS transitional arrangements. The transition arrangements were extended until 30 June 2023 to assist those segments of industry most affected by the COVID pandemic with aligning business arrangements to the new legislation.

**Talking points***(If Raised) Parallel imports of Electric Vehicles*

- The NEVS consultation paper sought views on whether changes to the RVS legislation should be considered to allow a wider range of electric to be independently imported, as some stakeholders have canvassed this a way to increase the availability of cheaper models.

- The Government will consider all relevant factors before any decision to change the current regulatory settings.

(If Raised) Road Vehicle Standards (RVS) legislation

- The RVS legislation was implemented in full on 1 July 2021. It sets performance-based standards for road vehicles to comply with before being provided in Australia.
- The legislation provides the basis for increased choice in the Australian automotive market. This does not extend to supporting the parallel importation of road vehicles, which are substantially the same as those already being provided in Australia by the original manufacturer or their approved agent under a vehicle type approval.
- The legislation provides a concessional pathway for importing vehicles and providing them in Australia. In most circumstances this is restricted to road vehicle types that are not already available to Australian consumers.
- Registered Automotive Workshops (RAWs) and other importers who use this pathway must ensure that the road vehicles they import are modified to meet applicable standards. The RVS legislation also applies uniform recall obligations regardless of who supplies the road vehicle to the Australian market, including concessional vehicles.
- The Government acknowledges that there are specialist vehicles that must be accessible to the Australian community if the RVS legislation is to meet its consumer choice objectives. The Specialist and Enthusiast Vehicles (SEVs) criteria provide for this.
- The SEVs criteria were drafted and tested extensively in consultation with industry before the RVS legislation was implemented. These criteria balance the competing interests of industry without providing scope for the ongoing importation of vehicles that are already available
- To balance the risk introduced by lifting vehicle supply caps, the legislative framework provides for increased regulatory oversight of these vehicles. The expectation of this policy approach was that the increased regulatory requirements will prevent this pathway from being feasible alternative to a vehicle type approval.
- The Department will continue to monitor the provision of vehicles through the concessional pathway and will assess whether the policy intent has been achieved during a post-implementation review of the framework, scheduled to commence in mid-2024.

(If Raised) Extension of the RVS transitional period

- The Government supported an extension to the RVS transitional arrangements to ensure an uninterrupted supply of road vehicles in Australia while providing those businesses that are still in the process of transitioning with further time to adopt the new legislation.
- The transitional arrangements end on 30 June 2023. The department continues to work with businesses across industry to transition to the RVS legislation.
- The extension of the RVS transitional arrangements does not exempt any segment of the vehicle manufacturing and importation sectors from transitioning to the new regulatory framework in order to continue providing road vehicles in Australia after 30 June 2023.

(If Raised) the Road Vehicle Regulator (ROVER) System

- The Department understands the ROVER system needs to be an efficient tool for businesses, and is continuing to work closely with peak bodies and ROVER users to

develop additional functionality and make further performance improvements to deliver a better user experience.

- Users now have improved capacity to self-manage applications using new functionality to delete unwanted applications and to withdraw, amend and resubmit applications that require corrections.
- We are planning further ROVER enhancements.
- Importantly, the department takes feedback and industry ideas regarding ROVER through its RVS industry forums.
- I understand both the FCAI and Toyota participate in these forums. If you have specific ideas, they can be flagged with the department using this forum.

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**Subject:** Road Vehicles Standards Legislation [SEC=OFFICIAL]  
**Location:** TEAMS

**Start:** Wed 7/09/2022 1:30 PM  
**End:** Wed 7/09/2022 2:15 PM  
**Show Time As:** Tentative

**Recurrence:** (none)

**Meeting Status:** Not yet responded

**Organizer:** GLADMAN Catherine  
**Required Attendees:** s47F s47F 'jvoortman@aada.asn.au'; s47F

OFFICIAL

Meeting to discuss proposed amendments to the Road Vehicle Standards Legislation, addressing potential conflicting obligations over fuel consumption labelling requirements and Australian Consumer Law.  
 Prepared brief attached.

Thank you  
 s47F

## Microsoft Teams meeting

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Passcode: XKytex

[Download Teams](#) | [Join on the web](#)

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[+61 2 6188 4842,,233855353#](#) Australia, Canberra

Phone Conference ID: 233 855 353#

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s47F

| EA for Assistant Secretary Catherine Gladman |  
 | Sustainable Transport and Maritime Safety Review |

s47F [@infrastructure.gov.au](mailto:s47F@infrastructure.gov.au)

P +61 2 s47F • M +61 s47F

GPO Box 594 Canberra, ACT 2601

Department of Infrastructure, Transport, Regional Development, Communications and the Arts  
 CONNECTING AUSTRALIANS • ENRICHING COMMUNITIES • EMPOWERING REGIONS

[arts.gov.au](https://arts.gov.au)




*I would like to acknowledge the traditional custodians of this land on which we meet, work and live.  
I recognise and respect their continuing connection to the land, waters and communities.  
I pay my respects to Elders past and present and to all Aboriginal and Torres Strait Islanders.*

**OFFICIAL**

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	<p><b>Australian Government</b></p> <hr/> <p><b>Department of Infrastructure, Transport, Regional Development, Communications and the Arts</b></p>
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**To:** Jim Betts (for noting)  
**cc:** Marisa Purvis-Smith, Deputy Secretary, Transport

**MEETING:** Meeting with Matthew Callachor and Andrew Willis, Toyota Australia

**Timing:** For meeting on Tuesday 4 October 2022 at 10am

**Venue:** Secretary’s Office

<b>Recommendations:</b>	
<p>1. That you note the information in this brief for your meeting with Mr Matthew Callachor, President and Chief Executive Officer, and Mr Andrew Willis, Manager Government Affairs, Trade and Environmental Policy, Toyota Australia.</p> <p style="text-align: right;"><b>Noted / Please Discuss</b></p>	
<b>Jim Betts</b>	Date:
<b>Comments:</b>	

**Meeting with:** Mr Matthew Callachor, President and Chief Executive Officer, and Mr Andrew Willis, Toyota Australia, Manager Government Affairs, Trade and Environmental Policy (biographies are at **Attachment A**).

**Prior meetings:** Mr Callachor met with Deputy Secretary, Marisa Purvis-Smith and Andrew Madsen, Acting First Assistant Secretary, Surface Transport Policy on 2 August 2022.

**What do the attendees want:**

To discuss the Government’s National Electric Vehicle Strategy and plans to consider a fuel efficiency standard for light vehicles. Mr Callachor may reiterate concerns about the concessional arrangements in the Road Vehicle Standards (RVS) legislation that allow third-parties to import and supply road vehicles in Australia.

**What does the department want:**

Be receptive to any ideas about the National Electric Vehicle Strategy and reiterate the current approach to managing the risks raised in relation to the RVS legislation.

**Key Points:**

*National Electric Vehicle Strategy and Fuel Efficiency Standards*

1. On 19 August 2022, the Minister for Infrastructure, Transport, Regional Development and Local Government, the Hon Catherine King MP, and the Minister for Climate Change and Energy, the Hon Chris Bowen MP announced that the government will consult on a light vehicle fuel efficiency standard for Australia as part of the National Electric Vehicle Strategy (NEVS). **Attachment C** provides further information on how a fuel efficiency standard works and its key features.
2. On 28 September 2022, Ministers King and Bowen released the NEVS discussion paper. The consultation is being led by the Department of Climate Change, Energy, the Environment and Water (DCCEEW). This consultation includes initial questions about whether the government should implement a fuel efficiency standard and what design features the government should look at more closely.
3. s47C,s47E(d)
4. Mr Callachor is currently the President of the Federal Chamber of Automotive Industries (FCAI), which is the peak body representing vehicle manufacturers. Toyota and the FCAI consider the Government should be flexible in the policies it adopts to reduce vehicle emissions, as there a number of low emissions fuel sources under development, and not excessively focus on supporting battery electric vehicles. Toyota is the leading manufacturer of (non-plug-in) hybrid vehicle technology and international proponent of hydrogen fuel cell vehicles (background is at **Attachment D**).
5. Mr Callachor may discuss FCAI's research on new vehicle prices if petrol, diesel and hybrid vehicles were to be restricted as announced in some other countries. The Government has publicly advised a ban on internal combustion engines is not currently under consideration.
6. FCAI anticipates considerable purchase price increases for volume brand vehicle customers if they were forced to switch to an electric vehicle (EV). It is unclear what EV technology improvements are included in this forecast and it does not include the considerably lower running costs for a battery EV. For example, Climateworks modelling found a battery EV has \$19,500 lower lifetime running costs than an internal combustion engine vehicle.
7. FCAI advises electric utes will not be readily available in right hand drive in coming years as the global market for these vehicles will be too small to make them viable. Despite this, some manufacturers have announced plans to manufacture electric utes in Thailand, which is a significant right hand drive market that supplies the majority of utes sold in Australia.
8. In 2020, the FCAI implemented a voluntary fuel efficiency standard for its members, which seeks a 4 per cent annual emissions reduction for cars and light SUVs and 3 per cent annual reduction for 4WDs and utes, with generous credits available. As there are no penalties for non-compliance, it does not provide sufficient incentive to supply more fuel-efficient models available overseas. FCAI has proposed this as a starting point for a mandatory standard.

*RVS Legislation settings*

9. The NEVS discussion paper seeks views on whether RVS legislation could be relaxed to allow a wider range of new and second-hand electric vehicles to be independently imported. Some stakeholders have proposed this as a way to bring more affordable electric vehicles to the Australian market.
10. Mr Callachor may use this to reiterate Toyota's longstanding concerns about the safety and quality of road vehicles that current receive concessional RAV entry approvals under the RVS legislation, which are provided by a party other than the original manufacturer. They consider the existing thresholds for specialist or enthusiast vehicles (SEVs) are too open and allow the import of vehicles that manufacturers may not deem suitable for Australian conditions.
11. The RVS legislation provides Australian consumers with a choice of road vehicles that meet certain safety, anti-theft and environmental emissions standards.
12. The legislation includes provisions that require third-party providers, including registered automotive workshops, to ensure imported vehicles meet applicable national road vehicle standards and to meet recall obligations for the vehicles they provide. The SEVs criteria promote choice without allowing third parties to import vehicles that are already provided in Australia under a type approval (such as those held by major manufacturers).
13. Mr Callachor may also raise concerns regarding the decision to extend the RVS transitional arrangements. The transition arrangements were extended until 30 June 2023 to assist those segments of industry most affected by the COVID pandemic and global supply chain issues with aligning business arrangements to the new legislation. There is no intention to extend the transitional period again.

**Sensitive and Critical Information:**

While Toyota and FCAI has been calling for government to implement a mandatory fuel efficiency standard, the level of emissions reduction supported by Toyota and the FCAI may be lower than government is contemplating, and is clearly lower than climate and EV groups consider necessary to support the government's 2030 and 2050 emissions reduction targets.

Like other Federal Chamber of Automotive Industries (FCAI) members, Toyota has sought to limit the ability of third-parties (e.g. registered automotive workshops) to provide road vehicles using the concessional pathway under the RVS legislation. The FCAI does not represent all businesses in the Australian automobile industry and the RVS legislation was designed to provide consumers with a greater choice of road vehicles that meet applicable safety, security and environmental standards.

Name: s47F  
Position: A/g Assistant Secretary, Sustainable  
Transport and Maritime Safety Review  
Division: Surface Transport Policy  
Ph: s47F  
Mob: s47F  
Date: 30 September 2022

Contact Officer: s47F  
Section: Sustainable Transport  
Ph: s47F

**Attachments:**

- Attachment A: Biographical Details
- Attachment B: Talking Points
- Attachment C: Background on fuel efficiency standards
- Attachment D: Background on Toyota's Work to Decarbonise Road Vehicles

## **TALKING POINTS**

### *National Electric Vehicle Strategy*

- The Government has just released the National Electric Vehicle Strategy (NEVS) discussion paper to seek stakeholder input on options to address barriers to uptake, take advantage of opportunities and manage the challenges of transitioning to electric vehicles.
- Through the Strategy, the Government is increasing the penetration of electric vehicles into the Australian market at an affordable rate. The strategy will consider:
  - further measures to increase electric car sales and infrastructure
  - policy settings to encourage Australian manufacturing of electric car components (especially batteries) and possibly cars themselves; and
  - addressing the policy implications of declining fuel excise.
- I would be pleased to hear Toyota's thoughts on the NEVS, particularly in relation to a fuel efficiency standard.
- The NEVS seeks preliminary views on a fuel efficiency standard. The department plans to consult further on the finer details of a fuel efficiency standard in coming months.
- It is expected that the proposed standard will require a faster rate of improvement than currently required by the FCAI's voluntary standard.

### *(If Raised) Parallel imports of Electric Vehicles*

- The NEVS consultation paper sought views on whether changes to the RVS legislation should be considered to allow a wider range of electric to be independently imported, as some stakeholders have canvassed this a way to increase the availability of cheaper models.
- The Government will consider all relevant factors before any decision to change the current regulatory settings.

### *(If Raised) Road Vehicle Standards (RVS) legislation*

- The RVS legislation was implemented in full on 1 July 2021. It sets standards for road vehicles to comply with before being provided for the first time in Australia.
- The legislation provides consumers with increased choice in the Australian automotive market. This does not extend to supporting the parallel importation of road vehicles that are substantially the same as those already being provided in Australia by the original manufacturer or their approved agent under a vehicle type approval.
- The legislation provides a concessional pathway for importing vehicles and providing them in Australia. In most circumstances this is restricted to road vehicle types that are not already available to Australian consumers.
- The RVS legislation includes Specialist and Enthusiast Vehicles (SEVs) Register eligibility criteria to meet specialist demand for vehicles, as well as requirements for registered automotive workshops (RAWs) and other importers who use this pathway to ensure that the road vehicles they import are modified to meet applicable standards. The RVS legislation also applies uniform recall obligations regardless of who supplies the road vehicle to the Australian market, including concessional vehicles.

- The SEVs Register eligibility criteria were drafted and tested extensively in consultation with industry before the RVS legislation was implemented. These criteria balance the competing interests of industry without providing scope for the ongoing importation of vehicles that are already available.
- The increased regulatory oversight of these vehicles also balances the risk introduced by lifting vehicle supply caps.
- The Department will continue to monitor the provision of vehicles through the concessional pathway and will assess whether the policy intent has been achieved during a post-implementation review of the framework, scheduled to commence in mid-2024.

*(If Raised) Extension of the RVS transitional period*

- The Government supported an extension to the RVS transitional arrangements to ensure an uninterrupted supply of road vehicles in Australia while providing those businesses affected by the COVID pandemic and global supply chain issues more time to transition to the new legislation.
- The transitional arrangements end on 30 June 2023. The department continues to work with businesses across industry to transition to the RVS legislation.
- The extension of the RVS transitional arrangements does not exempt any segment of the vehicle manufacturing and importation sectors from transitioning to the new regulatory framework in order to continue providing road vehicles in Australia after 30 June 2023.
- There is no intention to extend the transition period again.

*(If Raised) the Road Vehicle Regulator (ROVER) System*

- The Department understands the ROVER system needs to be an efficient tool for businesses, and is continuing to work closely with peak bodies and ROVER users to develop additional functionality and make further performance improvements to deliver a better user experience.
- Users now have improved capacity to self-manage applications using new functionality to delete unwanted applications and to withdraw, amend and resubmit applications that require corrections.
- We are planning further ROVER enhancements.
- Importantly, the department takes feedback and industry ideas regarding ROVER through its RVS industry forums.
- I understand both the FCAI and Toyota participate in these forums. If you have specific ideas, they can be flagged with the department using this forum.

**ATTACHMENT C**

**Background - Fuel efficiency standard – typical operation**

- *Describe the typical operation of an efficiency standard, and any variations that can be adopted*

A fuel efficiency standard is a form of cap and trade scheme which sets a limit for the average emissions in grams of CO<sub>2</sub> per kilometre (gCO<sub>2</sub>/km) for all vehicles sold each year by each manufacturer. The average emissions limit is specified by a ‘limit curve’ that makes an allowance for heavier vehicles, so utes, light commercial vehicles and 4wd’s are not unfairly penalised and supports manufacturers to continue to sell a wide range of vehicles. The starting level of emissions and annual decrease will determine the CO<sub>2</sub> reduction that can be achieved and will require modelling and consultation to ensure the measure is both effective and feasible.

A mandated fuel efficiency standard would include a compliance mechanism, with a charge imposed on manufacturers, or their Australian distributors, that fail to meet the standard. Credit trading is commonly used in overseas fuel efficiency standards to enable manufacturers who over-achieve to sell credits to manufacturers that do not meet their targets.<sup>1</sup> The lack of a compliance mechanism is the key weakness in the FCAI’s voluntary fuel efficiency scheme. Key stakeholders are calling for government to adopt a fuel efficiency standard, and the FCAI is calling for government implement a mandatory fuel efficiency standard based on its voluntary standard.<sup>2</sup>

Other common design variations include alternative credits and trading frameworks. These include;

- Bonus credits (called ‘off cycle credits’) for technologies that reduce the greenhouse gas emissions of the vehicle in a way which is not detected by the laboratory fuel consumption and emissions test, and ‘Super credits’ for ultra-low or zero emissions vehicles which apply a multiplier to sales of these vehicles.<sup>3,4,5</sup>
- Alternative rules for trading, banking and pooling credits.
- Annual emissions ceiling described as a percentage reduction (as per the EU standards for 2025 and 2030) versus an annual ‘headline’ gCO<sub>2</sub>/km target.

**Behaviour change**

- *How would we expect it to change behaviour of automotive companies and consumers?*

Companies

Independent analysis finds that vehicle manufacturers do not prioritise electric vehicle (EV) models for distribution in Australia. The lack of regulated fuel efficiency standard is the key policy driver for this outcome.<sup>6</sup> This finding is supported by statements from vehicle manufacturers, for example, the former head of VW Group Australia, Michael Bartsch stated that “unless a CO<sub>2</sub> target is set [in Australia], manufacturers will continue to prioritise modern markets both for zero emission vehicles and the most

<sup>1</sup> FCAI, *CO<sub>2</sub> standard: rules for calculating brand targets and assessing brand compliance*, [https://www.fcai.com.au/library/publication/fcai\\_rules\\_for\\_calculating\\_co2\\_compliance.pdf](https://www.fcai.com.au/library/publication/fcai_rules_for_calculating_co2_compliance.pdf)

<sup>2</sup> FCAI, *Time for Federal Government to adopt FCAI CO<sub>2</sub> target*, <https://www.fcai.com.au/news/index/view/news/765>

<sup>3</sup> The International Council on Clean Transportation (ICCT), *how will Off-Cycle Credits Impact US 2025 Efficiency standards*, <https://theicct.org/publication/how-will-off-cycle-credits-impact-u-s-2025-efficiency-standards/>

<sup>4</sup> European Commission (EC), *CO<sub>2</sub> emission performance standards for cars and vans*, [https://ec.europa.eu/clima/eu-action/transport-emissions/road-transport-reducing-co2-emissions-vehicles/co2-emission-performance-standards-cars-and-vans\\_en](https://ec.europa.eu/clima/eu-action/transport-emissions/road-transport-reducing-co2-emissions-vehicles/co2-emission-performance-standards-cars-and-vans_en)

<sup>5</sup> The Grattan Institute, *The Grattan car plan: practical policies for cleaner transport and better cities*, <https://grattan.edu.au/report/grattan-car-plan/>

<sup>6</sup> Bloomberg New Energy Finance, *Electric vehicle outlook 2021*, <https://about.bnef.com/electric-vehicle-outlook/>

efficient conventional engines”<sup>7</sup>, and that “markets where there are punitive fines if they don’t are naturally first in line for zero emission vehicles.”<sup>8,9</sup>

Even if consumers do consider fuel efficiency in their purchasing decisions, they can only purchase vehicles that manufacturers choose to supply to the Australian market. As consumers generally have limited information on the range of technologies that manufacturers can utilise to improve fuel efficiency, manufacturers face commercial risks in deciding which technologies they offer to the Australian market.

In a highly competitive market, vehicle manufacturers may be reluctant to invest heavily in fuel saving technologies that can increase manufacturing costs, particularly if competitors are focussing on other attributes that may be more cost effective and commercially successful. This is particularly the case, if consumers do not consider total cost of ownership.<sup>10</sup>

### Consumers

Relatively little direct consumer behaviour change is anticipated as a result of a fuel efficiency standard because the standard principally changes the default technology options manufacturers provide to the market, rather than providing a strong price signal to consumers.<sup>11</sup> Consumers who wish to purchase an EV but are currently unable to do so because of limited model availability are more likely to be able to purchase the vehicle they want. Manufacturers are also likely to provide more efficient internal combustion engine technology available in other markets to Australian vehicles.

Market research by the EV Council consistently finds that over 50 per cent of Australians are interested in purchasing an EV for their next car, with key barriers to purchase being poor model availability, high purchase price and range anxiety.<sup>12,13</sup> As noted above, due to the lack of a fuel efficiency standard in Australia, many popular EV models are not available in Australia,<sup>14</sup> or small allocations sell out in a matter of minutes.<sup>15</sup>

### **What countries have CO<sub>2</sub> standard and outcomes?**

- *Which countries have a standard in place and what evidence is there it has changed outcomes?*

Eight-five per cent of all vehicles sold in the world are covered by some form of fuel efficiency standard.<sup>16</sup> This includes the EU, US, China, Japan, Brazil, India, Canada, South Korea, Mexico and Saudi Arabia.<sup>17</sup> The IEA further finds that “stringent vehicle efficiency and/or CO<sub>2</sub> standards have promoted EV adoption in most leading EV markets and should be adopted by all countries seeking to hasten the transition to electromobility.”<sup>18</sup>

<sup>7</sup> Mr Bartsch’s successor, Mr Paul Sansom has made similar public statements, e.g., the Australian, *Desire for EVs shifts up a gear, now the law must keep up*, <https://www.theaustralian.com.au/special-reports/desire-for-evs-shifts-up-a-gear-now-the-law-must-keep-up/news-story/2b8ff7dbce56c458a29814ee24336a59?btr=efd3a86f61b00664877dcc1a545288d9>

<sup>8</sup> Car Sales, *Australia a “dumping ground” for old tech, says VW*, <https://www.carsales.com.au/editorial/details/australia-a-dumping-ground-for-old-tech-says-vw-129368/>

<sup>9</sup> ABC News, *Car makers say lack of emissions regulations putting handbrake on electric vehicles in Australia*, <https://www.abc.net.au/news/2021-11-10/car-brands-call-for-emissions-regulation-electric-vehicles/100608000>

<sup>10</sup> European Commission, *Evaluation of Regulations 443/2009 and 510/2011 on CO<sub>2</sub> emissions from light duty vehicles. Final Report*, <https://op.europa.eu/en/publication-detail/-/publication/7d6365fe-286c-4a6a-840c-877d79143022>

<sup>11</sup> CF. ‘feebate’ schemes that apply a fee to high emitting vehicle and a subsidy to low emitting vehicles.

<sup>12</sup> EV Council, *State of electric vehicles 2020*, <https://electricvehiclecouncil.com.au/reports/state-of-electric-vehicles-2020/>

<sup>13</sup> EV Council, *Consumer Attitudes Survey 2021*, <https://electricvehiclecouncil.com.au/reports/consumer-attitudes-survey-2021/>

<sup>14</sup> ABC News, *Carmakers say lack of emissions regulations putting handbrake on EVs in Australia*, <https://www.abc.net.au/news/2021-11-10/car-brands-call-for-emissions-regulation-electric-vehicles/100608000>

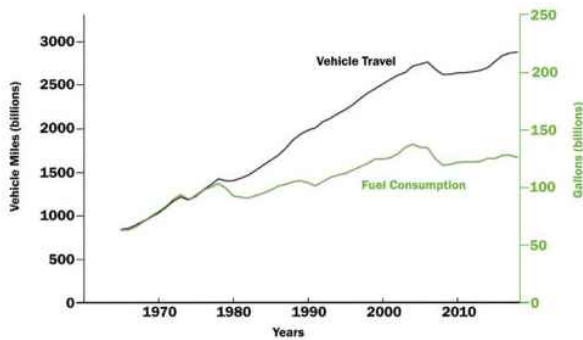
<sup>15</sup> The Driven, *Latest offering of Ionic electric SUVs sells out in less than seven minutes*, <https://thedriven.io/2022/03/23/latest-offering-of-ionic-5-electric-suvs-sells-out-in-less-than-seven-minutes/>

<sup>16</sup> IEA, *Policies to promote electric vehicle deployment*, <https://www.iea.org/reports/global-ev-outlook-2021/policies-to-promote-electric-vehicle-deployment>

<sup>17</sup> The ICCT, *Passenger vehicle fuel economy*, <https://theicct.org/pv-fuel-economy/>

<sup>18</sup> IEA, *Global EV outlook 2022*, <https://www.iea.org/reports/global-ev-outlook-2022/executive-summary>

Comparing average fuel efficiency over time or comparing average vehicle fuel efficiency between markets needs to be undertaken cautiously due to confounding variables (technology change over time, different fleet make up between countries etc.). Nevertheless, a 2020 analysis of the US fuel economy standard found the standard was highly effective and decoupled vehicle distance travelled from fuel used (see chart below).<sup>19</sup>



Transportation Statistics Analysis Report – U.S. Department of Transportation Bureau of Transportation Statistics (2018)

In 2019, the average passenger car in Europe emitted 123 gCO<sub>2</sub>/km, compared to about 169 gCO<sub>2</sub>/km in Australia,<sup>20</sup> although some of this difference is due to larger vehicles in Australia than Europe. Similarly, the average US passenger light vehicle is more than 100kg heavier than the average Australian vehicle, and have considerably more powerful engines, yet US vehicles emit on average 5g CO<sub>2</sub>/km less.<sup>21</sup> As noted above, manufacturers and independent analysts consistently advise that regulated fuel efficiency standards are a key driver for the supply of EVs to markets.

Departmental analysis in 2018 found that if light vehicles sold in Australia met the same mass based efficiency requirements as those sold in the EU, Australia's fleet average emissions would be 16 per cent lower.

### Implementation in Australia

- *How could a standard be implemented in Australia, what would government need to agree to, would it need legislative amendments, if so how?*

New Commonwealth legislation would likely be required to implement a fuel efficiency standard. Amendments to the *Road Vehicles Standards Act 2018* (RVSA) would likely not be practical because the RVSA regulates individual vehicles, whereas a fuel efficiency standard needs to regulate emissions performance of a group of vehicles. The requirements of this legislation would apply to corporations that manage the sale and distribution of light vehicles in Australia (distributors). A regular review would be included to set future emissions reduction targets to help ensure the standard is sufficiently ambitious and continues to improve the efficiency of vehicles available in Australia.

Consultation across government will be required to determine the appropriate regulator for the fuel efficiency standard. DITRDC may be able to establish that capacity or an external regulator, for example the Clean Energy Regulator which regulates the Safeguard Mechanism, may be better placed.

<sup>19</sup> Princeton University, *Comprehensive look at US fuel economy standards shows big savings on fuel and emissions*, <https://acee.princeton.edu/acee-news/comprehensive-look-at-u-s-fuel-economy-standards-shows-big-savings-on-fuel-and-emissions/>

<sup>20</sup> National Transport Commission (2020) and European Environment Agency, cited in the Grattan Car Plan (2021), <https://grattan.edu.au/wp-content/uploads/2021/10/Grattan-Car-Plan.pdf>

<sup>21</sup> The Grattan Car Plan, p.8-9



### Background – Toyota’s Work to Decarbonise Road Vehicles

- Toyota sees itself as setting a foundation for future market take-up of this innovative zero emission technology, with the intent to introduce vehicles to the Australian market when there is consumer demand and the necessary regulations and infrastructure are in place to support the vehicle.
- Decarbonisation is part of the Toyota Environmental Challenge 2050, which is a set of six interlinked challenges that it announced in 2015 to create positive impacts on the planet and society.
- The decarbonisation challenge is referred to as the Vehicle CO<sub>2</sub> emissions challenge. Toyota’s broad objective is to achieve carbon neutrality as quickly as possible. Toyota seeks to achieve this by accelerating electrification and offering a diverse range of CO<sub>2</sub> efficient powertrain (engine and transmission) solutions to customers.
- Significant investment in powertrain solutions because of the diverse nature of energy sources across regions, the different transportation needs of people and thirdly, the imperative to maximise the Carbon Return on Investment to ensure that use of scarce battery raw materials is optimised.
- In practical terms, Toyota is the leading manufacturer of (non-plug-in) hybrid vehicle technology and a leading proponent in developing hydrogen fuel cell vehicles. In Australia, Toyota sells:
  - hybrid versions of the Yaris, Yaris Cross, Corolla, C-HR, RAV4 and Kluger as well as a number of Lexus models; and
  - one fully electric vehicle (Lexus UX300e) with plans to offer more in the future.
- As part of its decarbonisation challenge, Toyota has also set a carbon-zero target for factories by 2035.
- Toyota received funding from the Australian Renewable Energy Agency (ARENA) to transform part of its decommissioned car manufacturing plant in Altona (VIC) into a renewable energy hub to produce renewable hydrogen for both stationary energy and transport energy uses.

#### *Key Strategic Partnerships*

- Toyota Australia is a key member of the Federal Chamber of Automotive Industries (FCAI), the peak body representing light vehicle manufacturers, which adopted its own fuel efficiency standards in 2020 that target significant CO<sub>2</sub> emissions by 2030.
- Toyota is a foundation member of Hydrogen Mobility Australia (HMA). HMA is a national body that will work to accelerate the commercialisation of new hydrogen and fuel cell technologies across the entire hydrogen value chain, including production, export and storage for transport in Australia and overseas. Membership comprises vehicle manufacturers, energy companies and infrastructure providers.

**Archived:** Monday, 30 January 2023 3:27:59 PM

**From:** GvG

**Mail received time:** Thu, 20 Oct 2022 09:13:16

**Sent:** Thu, 20 Oct 2022 09:13:15

**To:** s47F

**Cc:** s47F

**Subject:** RE: GVG Data [SEC=OFFICIAL]

**Importance:** Normal

**Sensitivity:** None

**Attachments:**

[Draft GVG Licence agreement for information.pdf](#); [GVG data transfer form.pdf](#); [NEW-PublicGVGWebServicesSystemUserGuide.pdf](#);

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OFFICIAL

Hi s47F

My apologies for the delay.

The Department offers a third party web service for users who wish to use the Green Vehicle Guide data in an external application.

Please find attached a copy of the user manual which explains how the service works. There is no cost to access the web service, but access is subject to a licence agreement (copy attached your information), which outlines the terms and conditions for access.

If you consider this service would be of use, and your organisation is comfortable with the terms and conditions in the draft licence agreement, please complete the attached data transfer form and send us a scanned copy of the completed form to us by return email. We will then use this information to prepare a version of the licence agreement for your delegate's signature and to set up a login to access the service, once the licence agreement is signed.

Regards,

Nichola

**GVG Team**

OFFICIAL

---

**From:** s47F

**Sent:** Tuesday, 18 October 2022 2:59 PM

**To:** GvG

**Cc:** s47F

**Subject:** GVG Data

PROTECTED

Hello Mr s47F

FOI 23-076

My name is s47F I work within the Corporate Strategy division in Toyota Australia. We have been informed you are the best person to discuss our query with, if not please forward this email to the most appropriate personnel.

As you may be aware the government is trying to implement CO2 regulations for Australia. We have been using your website to get an indication on competitor CO2 data, and how such regulations would impact them. Currently we have to input individual models to gather the information, which as you could imagine, can be a time consuming task.

Therefore we are asking if it is possible if you could give us a data dump for new vehicles (within <https://www.greenvehicleguide.gov.au/Vehicle/Search>).

Again our intention is to gather the information in a efficient way, in order to analyse the market as a whole, to ascertain any impacts.

Feel free to contact me if there are any questions you may wish to ask.

Thank you

Kind regards

s47F

DISCLAIMER:

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**Australian Government**

**Department of Infrastructure and Regional Development**

**Volume**

**1**

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**Department of Infrastructure and  
Regional Development  
Green Vehicle Guide**

**Web Services  
System User Guide**

Released under the Act by DPI/ROCA

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## Introduction

### Green Vehicle Guide

The Green Vehicle Guide (GVG) provides information about the environmental performance of new light vehicles (up to 3.5 tonnes gross vehicle mass) sold in Australia. The GVG can help consumers to choose a cleaner car.

Detailed information helps identify individual vehicle models, including the make, model and variant name, engine and transmission, body style, seating and fuel type.

Information provided for each vehicle will assist in comparing the level of emissions of different vehicles and consequently their impact on the environment. The information includes:

- Tailpipe CO<sub>2</sub> emissions - to help you compare a vehicle's greenhouse gas emissions, which contribute to climate change.
- Fuel Consumption (in L/100km) - to help you identify the most fuel-efficient vehicle for your needs. (Note: The Green Vehicle Guide only provides information for vehicles sold as new in Australia from 2004 onwards. Information for most 1986 - 2003 vehicle models can be found on the former Fuel Consumption Guide website).
- Energy consumption and electric range – to help you identify any electric or plug-in hybrid vehicles that may suit your needs.
- Air Pollution Standard - to help you compare a vehicle's contribution to urban air pollution (and associated effects on the environment, human health and amenity).

When buying a new car, consumers can use the Green Vehicle Guide data to identify the vehicle with the best performance which meets their needs.

### Web Services

Web services are any piece of software that opens itself for interaction over the internet using a standardized XML (Extensible Markup Language) messaging system. XML is used to encode all communications to a web service. For example, a client invokes a web service by sending an XML message, and then waits for a corresponding XML response. Because all communication is in XML, web services are not tied to any one operating system or programming language and allows for interoperability to occur. For example Java can talk with Perl; Windows applications can talk with UNIX applications, etc.

**GETTING STARTED**

## Getting Started

### GVG Public Web Service

The Web Service provides a data interface for Vehicle information held within the Green Vehicle Guide's Public database. The goal of design for the web service is to create a flexible interface that can be used in the future by a wide variety of external vendors.

The web service is secured using SSL. For security reasons, HTTP GET & POST operations have been denied and as such, the web service will only communicate using SOAP (Simple Object Access Protocol).

The output of the web service is version controlled. The version number of interface is embedded in the XML. Consumers of the service should respect this version number.

For information on what particular data is contained within the GVG application and how it should be used, users of the web service are directed to the GVG Business Owners at Infrastructure who are responsible for the data. Any organisation that chooses to utilise the GVG Public Web Service facility must sign an agreement with Infrastructure and abide by certain terms and conditions. It will also be a condition of this agreement that Infrastructure will reserve the right to withdraw an organisation's access to the GVG Public Web Service facility if that organisation is in breach of the previously mentioned terms and conditions.

The Web Service is written in Microsoft .NET and uses a standard .NET technologies and approach. A development .NET Test Harness to test the web service is freely available as source code.

The authentication is done with the User Table present in the GVG Public Database. This user table information is extracted from the User Table present in the Administrator database. Hence the registration for the users of this web service is performed by Infrastructure using the Administrator's web site.

The web service has standard authentication mechanism similar to Admin website, i.e. a user is locked out after three unsuccessful attempts. After this the password has to be reset.

## Request Methods

The Public GVG Web Services consists of two request methods.

These are the:

- Request Data Method; and
- Request Schema Method.

The Request data method is used to access data from the GVG Public database, where as the Request Schema Method is used to access the data types of the data available through the Request Data Method. This is useful for the developers working for the third party vendors.

### Request Data Method

The Request Data Method calls the Public GVG Web Services and requests the provision of the GVG Public data based on the parameters present.

#### Method Name:

##### GetAllManufacturersVehicleReportData

This method is designed to provide approved organisations with the data containing GVG and Vehicle Manufacturers' details specific to each vehicle recorded in the GVG Public Database. When requesting the GVG Public data, organisations can provide a date parameter as part of the request transmission if they choose. This will dictate that only data created in the GVG Public database since the date given is to be supplied. As the name suggests, this method provides data related to all vehicle manufacturers. This is driven by the fact that organisations using the GVG Public Web Service facility will not be provided with the option of determining the name of a specific vehicle manufacturer when requesting GVG Public data.

Each organisation will be required to perform development of their own application to access this method to request the GVG Public data.



**GETTING STARTED****Overview**

This method acquires an XML set of data pertaining to vehicle information in the GVG Public Database. The GVG Public Database contains a table created for the purpose of recording the usage of the GVG Public Web Service. It stores the date the web service was successfully accessed. If an organisation accessing the GVG Public Web Service does not provide a date parameter to assist in determining what data is required, then the following process occurs:

1. The Web Service will look for an earlier instance of the organisation having successfully accessed the web service, i.e. it searches whether there is any record of the user having used the system before. If an earlier instance exists, the GVG Public Web Service will use the recorded date to determine what data is to be provided from the GVG Public Database.
2. If there is no record of the user having successfully accessed the system before, then all the data present in the GVG Public Database will be provided. This action will cause an instance of the user having successfully accessed the system to be recorded, and hence the next time the user requests GVG data via the GVG Public Web Service and doesn't provide a date parameter, then only data that has been created in the GVG Public Database after the date of the previous request will be sent to the user. This mechanism avoids the user having to provide a date from their system on a regular basis and also duplication of the data.
3. If the user provides a date as part of their request, then only data that has been created in the GVG Public Database after the date parameter given will be provided from the GVG Public Database.

The web service demands SSL and uses Login and Password parameters for the purpose of authentication.

**Parameters**

Following are the parameters required by the Request Data Method. Login and password are mandatory, where as dateTimeFrom is not. If no dateTimeFrom is provided, then the Web Service provides data as based on the logic mentioned in above paragraph.

- login (string)
- password (string)
- dateTimeFrom (string representation of a date & time that .NET can convert into a DateTime and must be in the format DD/MM/YYYY)

**Operation**

The application requesting data from the Web Service should follow following steps to access the data.

1. Call the method with valid login / password credentials and a Date & Time (not mandatory).
2. Receive an XML representation of a .NET Dataset object pertaining to the data within the GVG Administration application.

## GETTING STARTED

**Data transmitted**

(The following identifies the data elements that will be provided when calling the Request Data Method of the GVG Public Web Service)

<b>Data Field</b>	<b>Type</b>	<b>Valid Values</b>
BodyStyleDesc	String	Eg. Sedan
CO2Emissions	Integer	Eg. 346 (g/km)
CO2EmissionsExtraUrban	Integer	Eg. 252 (g/km)
CO2EmissionsUrban	Integer	Eg. 572 (g/km)
CertificationLevelDesc	String	Eg. Euro 4
DrivingWheelsDesc	String	Eg. 2 (2 WD)
ElectricRangeKm	Integer	Eg. 150
EnergyConsumptionWhkm	Decimal	Eg. 135.1
EngineConfigurationDesc	String	Eg. 12cyl
EngineDisplacementDesc	String	Eg. 6
ForwardGearsDesc	Integer	Eg. 5
FuelConsumption	Decimal	Eg 14.5
FuelConsumptionExtraUrban	Decimal	Eg 10.2
FuelConsumptionUrban	Decimal	Eg. 21.6
FuelTypeDesc	String	Eg. Petrol 98RON
InductionDesc	String	Eg. Turbo
IsCurrentModelDesc	String	Eg. No
Make	String	Eg. Mercedes-Benz
MarketingModel	String	Eg. S-Class
ModelReleaseVersion	String	Eg. Edition
ModelReleaseYear	Integer	Eg. 2009
NonCurrentOnDate	Datetime	Eg. 2011-02-14T00:00:00
PublishedDate	Datetime	Eg. 2019-10-14T14:28:207
SeatingCapacityDesc	String	Eg. 5
SideDoorsDesc	String	Eg. 4
StationaryNoiseDataDesc	String	Eg. 89
TestSpeedDesc	String	Eg. 3000
TransmissionTypeDesc	String	Eg. Auto
Variant	String	Eg. S65L AMG
VehicleClassDesc	String	Eg . Large Car
VehicleDisplayId	Integer	Eg . 4085

**GETTING STARTED**

## Request Schema Method

The Request Schema Method is used to provide XML data detailing the current XML schema used by the GVG Public Web Services to accommodate the data that is made available via the Request Data Method.

### Method Name:

#### GetAllManufacturersVehicleReportDataSchema

This method provides the XML data element types for the data transmitted via Request Data method. For example it identifies that when the data for VehicleDisplayId is provided, it will be of type Integer, etc. This is necessary for the third party vendor's developers when determining their database design.

### Overview

This method acquires the latest XML schema pertaining to vehicle information in the GVG Public Database. This is provided so that if a change to the schema occurs, the latest version can be acquired so that data elements are known and can be incorporated into the database design. When requesting the schema using the Request Schema Method, no date parameter is required.

This method can be accessed by passing the necessary parameters, namely login and password. It provides information specific to the data element types, which as mentioned before can be used to design the database which will house the data retrieved via the Request Data method.

### Parameters

Both the parameters are mandatory. They are required specifically for the purpose of authentication.

- login (string)
- password (string)

### Operation

The Request Schema Method can be called in similar manner to the Request Data method and the request must include the organisation's login and password.

The application requesting data from the Web Service should follow following steps to access the data

1. Call the method with valid login / password authentication credentials.
2. Receive an XML representation of the schema of the data returned through Return Data method.

## GETTING STARTED

## Data Transmitted

(The following identifies the data elements of the schema that will be provided when calling the Request Schema Method of the GVG Public Web Service)

```

<xs:schema elementFormDefault="qualified" targetNamespace="http://www.greenvehicleguide.gov.au"
xmlns:xs="http://www.w3.org/2001/XMLSchema">
<xs:element name="VehicleReport">
<xs:complexType>
<xs:sequence>
<xs:element name="VehicleReportData" nillable="true" minOccurs="0" maxOccurs="unbounded">
<xs:complexType>
<xs:sequence>
<xs:element minOccurs="0" maxOccurs="1" name="BodyStyleDesc" type="xs:string" />
<xs:element minOccurs="1" maxOccurs="1" name="CO2Emissions" type="xs:int" />
<xs:element minOccurs="1" maxOccurs="1" name="CO2EmissionsExtraUrban" nillable="true" type="xs:int" />
<xs:element minOccurs="1" maxOccurs="1" name="CO2EmissionsUrban" nillable="true" type="xs:int" />
<xs:element minOccurs="0" maxOccurs="1" name="CertificationLevelDesc" type="xs:string" />
<xs:element minOccurs="0" maxOccurs="1" name="DrivingWheelsDesc" type="xs:string" />
<xs:element minOccurs="1" maxOccurs="1" name="ElectricRangeKm" nillable="true" type="xs:int" />
<xs:element minOccurs="1" maxOccurs="1" name="EnergyConsumptionWhkm" nillable="true"
type="xs:decimal" />
<xs:element minOccurs="0" maxOccurs="1" name="EngineConfigurationDesc" type="xs:string" />
<xs:element minOccurs="0" maxOccurs="1" name="EngineDisplacementDesc" type="xs:string" />
<xs:element minOccurs="0" maxOccurs="1" name="ForwardGearsDesc" type="xs:string" />
<xs:element minOccurs="1" maxOccurs="1" name="FuelConsumption" type="xs:decimal" />
<xs:element minOccurs="1" maxOccurs="1" name="FuelConsumptionExtraUrban" nillable="true"
type="xs:decimal" />
<xs:element minOccurs="1" maxOccurs="1" name="FuelConsumptionUrban" nillable="true" type="xs:decimal"
/>
<xs:element minOccurs="0" maxOccurs="1" name="FuelTypeDesc" type="xs:string" />
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## GETTING STARTED

## Trouble Shooting Guide

Listed below are some of the problems you may experience from time to time. The table below provides recommended corrective actions for these problems.

Error Message	Likely Reason
(NB. A full debug version of this error has been sent to the application administrator) Login or Password is invalid. Please try again or contact the application administrator.	Wrong User name or password  More than 3 invalid login attempts
'[Parameter entered by User]' is not a valid date.	Invalid data entered for From Date parameter. Date should be in the format DD/MM/YYYY.
Logon [user name] No data matching your criteria. Suggest checking dates. (GetAllManufacturersVehicleReportData).	No data found for the entered date. This may be due to the fact that no new data has been recorded since you last obtained GVG data or the date entered is after the date that new GVG data was last entered.

If further assistance is required, contact the following Infrastructure GVG managers:

Contact Name	Role	Contact . Number	Email Address
s47F	Senior User Representative	(02) s47F	gvg@infrastructure.gov.au



## Australian Government

Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts

### REQUEST FOR GREEN VEHICLE GUIDE DATA TRANSFER

To obtain third party access to the Green Vehicle Guide database, you first need to complete this form. Subject to the information provided, we will then prepare a Licence Agreement between the Department and your organisation. Access to the GVG database will be subject to the terms and conditions of the Licence Agreement.

<b>Name of Applicant/Delegate</b> <i>(Note: This person will be listed as the signatory on the licence agreement and should have authority to sign on behalf of your organisation)</i>	
<b>Position</b>	
<b>Legal Business Name of Company</b>	
<b>Trading Name (if applicable)</b>	
<b>ABN</b>	
<b>Street Address</b>	
<b>Primary Contact Name</b> <i>(if different from above)</i>	
<b>Primary Contact Phone Number</b>	
<b>Primary Contact Email Address</b>	
<b>IT Contact Name</b>	
<b>IT Contact Phone Number</b>	
<b>IT Contact Email Address</b>	
<b>Login Email Address</b> <i>(This will be used as your login for the web service. All emails to set/reset passwords will be sent to this address)</i>	
<b>Website/application which will feature GVG data</b>	
<b>Primary purpose of website:</b>	

#### APP5 Privacy notice: Green Vehicle Guide (GVG) third party web service registration

The Department of Infrastructure, Transport, Regional Development, Communications and the Arts (the Department) is collecting personal information for the purposes of registering an account to access the GVG third party web service.

The Department will use your personal information to prepare a licence agreement, to create a login to access the service and to contact users in the event of an issue affecting their access to the service. This information is collected in accordance with the Privacy Act 1988 and will securely stored. The Department may disclose

information to other government agencies where required by law. If you do not provide the information requested we will be unable to process your registration.

The Department's [privacy policy](#) contains information regarding complaint handling processes and how to access and/or seek correction of personal information held by the Department. The [Privacy Officer](#) can be contacted on (02) 6274 6495.

I wish to make an application on behalf of .....  
to obtain access to the GVG data transfer facility. I understand that access will be granted subject to the terms and conditions of a licence agreement consistent with the attached template.

<b>Signature:</b>	
<b>Position:</b>	
<b>Date:</b>	

Released under FOI Act by DITRDCA

To whom it may concern,

Thank you for your interest in the Green Vehicle Guide (GVG) third party web service.

This is a copy of the licence agreement, which sets out the terms and conditions for access to the web service. Please do not sign this version, as we will require your details to complete the relevant parts of the licence agreement.

If you/your organisation wish to sign up to the web service, please complete the 'Request for Green Vehicle Guide data transfer' form, which is also attached to your email.

The Department will use the information supplied in that form to prepare a version of this licence agreement for your/your delegate's signature.

Kind regards

GVG Team

Draft for information - please do not sign





## Australian Government

Department of Infrastructure, Transport,  
Regional Development, Communications and the Arts

### LICENCE AGREEMENT

FOR GREEN VEHICLE GUIDE DATABASE

#### Parties

This Licence is between:

1. **Commonwealth of Australia** through the Department of Infrastructure, Transport, Regional Development, Communications and the Arts, 111 Alinga Street, Canberra, Australian Capital Territory 2600 (**the Department**),
2. **[Insert name of other party]**  
[ABN] [Address]  
(‘You’, ‘Your’ or ‘Yours’ as the case requires).

#### Purposes of this Licence

- A. The Department makes available from the web site [www.greenvehicleguide.gov.au](http://www.greenvehicleguide.gov.au), a database which provides information to the public on the environmental performance of vehicles manufactured from 2004 onwards (**GVG Database**).
- B. You want to access the GVG Database and use the data made available on the GVG Database (**GVG Data**).
- C. The Department agrees to permit You to access the GVG Database and use the GVG Data on the terms and conditions contained in this Licence and You agree to comply with and be subject to all the terms, conditions and acknowledgments contained in this Licence in connection with any access to and use of the GVG Database and any GVG Data.

#### 1. Interpretation and Definitions

1.1. In this Licence:

- a. **Derivative GVG Data** means GVG Data which is altered, adapted, abridged or supplemented, and/or which incorporates additional functionality;
- b. **End-user** means a third party to whom You supply the GVG Data or Derivative GVG Data; and
- c. **verso** means the imprint page of a hardcopy publication which sets out the copyright information for the publication

- 1.2. Any reference in this Licence to You includes, as applicable, You, Your employees, Your agents, Your contractors, Your directors, and Your officeholders. You must ensure that all of these people comply with the terms of this Licence.
- 1.3. You acknowledge that having access to the GVG Database is valuable to You and in consideration for the Department providing You access to the GVG Database on the terms of this Licence, You accept and agree to be bound by its terms.

## 2. Term of the Licence

---

- 2.1. This Licence operates until 30 June 2024, unless terminated earlier in accordance with this Licence.

## 3. Third Party Data

---

- 3.1. You acknowledge that the GVG Database includes Australian Design Rules compliance information about vehicles which is supplied by vehicle manufacturers (**Vehicle Data**).
- 3.2. You acknowledge that quality of the Vehicle Data lies with the vehicle manufacturer who supplied the Vehicle Data.

## 4. Use

---

- 4.1. The Department grants to You for the purpose of making the GVG Data or Derivative GVG Data available to Your End-users via a website and other documents associated with Your business, a revokable, non-transferable and non-exclusive licence to access, distribute, read, display, reproduce, communicate, print, download and utilise part or all of the GVG Database and GVG Data (including by development and distribution of Derivative GVG Data), provided that:
- a. any information published by You does not conflict with or contradict any information published by the Department on the website [www.greenvehicleguide.gov.au](http://www.greenvehicleguide.gov.au); and
  - b. You ensure any website on which You make the GVG Data or Derivative GVG Data available to Your End-users is clearly identified as a website operated by You and clearly differentiated from the website [www.greenvehicleguide.gov.au](http://www.greenvehicleguide.gov.au).
- 4.2. You must not ask for or receive additional payment from any End-user for or in connection with the provision to them of the GVG Database or GVG Data.
- 4.3. Except as permitted pursuant to clause 4.1, You must not:
- a. sell, loan, rent, lease, sublicense, distribute, transmit or otherwise transfer the GVG Database or the GVG Data, in whole or in part, to any other person; or
  - b. use GVG Data or any of the data, information or other intellectual property associated with the GVG Database for any other commercial or business purpose without obtaining the Department's prior written permission.

## 5. Acknowledgement

---

### 5.1. **Where the GVG Data is used in unaltered form**

- 5.1.1. You must make End-users aware the GVG Data was sourced from the Department and is used under licence. You must use the following copyright statement where You use the GVG Data in unaltered form:

*© Commonwealth of Australia (Department of Infrastructure, Transport, Regional Development, Communications and the Arts) 2022*

*Limited End-user licence provided by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts: You may print and reproduce views obtained from the Green Vehicle Guide data, retaining this notice, for your personal use only. The Department of Infrastructure, Transport, Regional Development, Communications and the Arts gives no warranty regarding the Green Vehicle Guide data's accuracy, completeness, currency or suitability for any particular purpose.*

- 5.1.2. The copyright statement in clause 5.1 must appear on each page of any website where the GVG Data appears and on the verso of any hardcopy publication.

### 5.2. **Where Derivative GVG Data is developed from the GVG Data**

- 5.2.1. You must supply a copy of the Derivative GVG Data and distribution information to the Department on request.

- 5.2.2. Any Derivative GVG Data must display the following copyright statement:

*This website incorporates data that is:*

*© Commonwealth of Australia (Department of Infrastructure, Transport, Regional Development, Communications and the Arts) 2022*

*The Green Vehicle Guide data has been used in this website with the permission of the Department of Infrastructure, Transport, Regional Development, Communications and the Arts. The Department of Infrastructure, Transport, Regional Development, Communications and the Arts has not evaluated the Green Vehicle Guide data as altered and incorporated within this website, and therefore gives no warranty regarding its accuracy, quality, timeliness, completeness, currency or suitability for any particular purpose.*

*Limited End-user licence provided by the Department of Infrastructure, Transport, Regional Development, Communications and the Arts: You may print and reproduce views obtained from the Green Vehicle Guide data, retaining this notice, for your personal use only.*

- 5.2.3. The copyright statement in clause 5.2.2 must appear on each page of any website where the Derivative GVG Data appears and on the verso of any hardcopy publication.

## 6. Ownership

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- 6.1. The GVG Database and all intellectual property rights in the GVG Database including, without limitation, any and all copyright, trade mark and other rights arising under Australian law and international conventions, remain the exclusive property of the Department.

## 7. Security Measures

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- 7.1. You must use adequate security measures to protect the GVG Data and any Derivative GVG Data from unauthorised use, distribution or publication.

## 8. Your Use of the Dataset

---

- 8.1. You acknowledge that the GVG Database, GVG Data and Vehicle Data have not been fully tested by the Department and may contain omissions and errors. You agree to rely on Your own examination, skill and expertise in determining whether the GVG Database, GVG Data and Vehicle Data are capable, suitable or safe for a particular application and use, or any application and use at all.
- 8.2. You assume responsibility for correct matching of GVG Data and the vehicle makes, models and variants as listed on Your website.
- 8.3. You acknowledge that the GVG Database and GVG Data have not been developed for use on Your own software and that the Department makes no warranties in relation to Your software being able to utilise the GVG Database and GVG Data. You must rely on Your own skill and expertise in determining whether You will be able to utilise the GVG Database and GVG Data. You assume responsibility for selection of the GVG Data to achieve any intended results.

## 9. Changes to the GVG Database

---

- 9.1. The Department reserves the right to make changes or updates to the GVG Database at any time.

## 10. No Representation or Warranty

---

- 10.1. You agree that the Department makes no representation and gives no warranty as to:
- a. the accuracy, completeness, timeliness, quality, usefulness, suitability, functionality or fitness for purpose of the GVG Database, GVG Data or the Vehicle Data;
  - b. the compatibility of the GVG Database, GVG Data or the Vehicle Data with any other application; or
  - c. the security of the GVG Database.

- 10.2. No warranties, express or implied, are given or offered for the GVG Database, GVG Data or Vehicle Data except as provided in this clause. Where any statute implies into the Licence any condition or warranty, and that statute prohibits provisions excluding or modifying the application or exercise of, or liability under, such condition or warranty, such condition or warranty will be deemed to be included in the Licence. However, the Department's liability for any breach of such statutory condition or warranty will be limited, at its option, to replacement of the GVG Data.

## 11. Release

---

- 11.1. You release the Department to the full extent permitted by law from all liability for loss or damage arising from the use of, or reliance on, material or information made available through the GVG Database, whether or not caused by any negligence on the part of the Department or its agents. In no event shall the Department be liable for any incidental or consequential damages resulting from use of or reliance on material or information made available through the GVG Database.
- 11.2. You agree that the Department is not liable for any direct, indirect, incidental, special or consequential damages, or damages for loss of profits, revenue, data or use, incurred by You or any third party as a result of Your or any third party's use of:
- a. the GVG Database;
  - b. GVG Data;
  - c. Derivative GVG Data; or
  - d. Vehicle Data,
- whether or not caused by any negligence on the part of the Department or its agents.

## 12. Indemnity by You

---

- 12.1. You agree to indemnify the Department from and against any and all claims, liabilities, damages, losses or expenses and costs in respect of Your or any third party's use of:
- a. the GVG Database;
  - b. GVG Data;
  - c. Derivative GVG Data; or
  - d. Vehicle Data.

### **13. Termination of Licence**

---

- 13.1. The Department may, at any time, terminate the Licence, with immediate effect by giving notice to You if:
- a. You breach any of Your obligations under this Licence; or
  - b. the Department is unable to provide the GVG Database or GVG Data, for whatever reason.
- 13.2. Either party may, at any time, terminate this Licence, with immediate effect by giving 30 days' notice to the other party.

### **14. Assignment**

---

- 14.1. You must not assign, in whole or in part, either Your rights or obligations under this Licence without the prior written approval of the Department.

### **15. Whole Agreement**

---

- 15.1. This Licence constitutes the whole agreement between the parties with respect to the GVG Database and the GVG Data and supersedes any prior negotiations, agreement or understanding.

### **16. Variation**

---

- 16.1. This Licence may only be varied either at law or in equity in writing signed by each party.

### **17. Jurisdiction**

---

- 17.1. This Licence is governed by the laws of the Australian Capital Territory and You submit to the non-exclusive jurisdiction of that Territory's courts.

Draft for information - please do not sign

**As evidence of their agreement the Parties have signed below.**

Signed for and on behalf of the  
**Commonwealth of Australia** by:

in the presence of:

\_\_\_\_\_  
[Signature of delegate]

\_\_\_\_\_  
[Signature of witness]

\_\_\_\_\_  
[Name of delegate]

\_\_\_\_\_  
[Name of witness]

\_\_\_\_\_  
[Position of delegate]

\_\_\_\_\_  
[Date]

**Executed by [insert Licensee Name] by [insert name], [insert position]** who by signing warrants that they have the authority to bind **[insert Licensee Name]** in the presence of:

\_\_\_\_\_  
[Name of witness]

\_\_\_\_\_  
[Signature of representative]

\_\_\_\_\_  
[Signature of witness]

\_\_\_\_\_  
[Date]

Draft for information - please do not sign

1<sup>st</sup> November 2022

Katrina Christofani, Director, Sustainable Transport Section,  
Sustainable Transport and Maritime Safety Review Branch  
Surface Transport Policy Division  
Dept of Infrastructure, Transport, Regional Development, Communications and the Arts  
GPO Box 594  
Canberra ACT 2600

Dear **s47F**

Further to our recent meetings to discuss various matters relating to light vehicle emissions and efficiency regulation, I would like to raise an issue which has the potential to streamline and simplify the certification application process for industry and the approval process for government.

For the purpose of ADR 81/02 compliance, the Department will accept WLTC evidence in accordance with UN Regulation 154 (Level 1A or Level 2) or EU Regulation 2017/1151. This applies to:

- o WLTC for BEV's as provided by email from Umesh Shamdasani dated 25<sup>th</sup> February 2022)
- o WLTC for PHEV & OHV HEVs as provided by email from Umesh Shamdasani dated 6<sup>th</sup> April 2022, and clarified by email dated 31<sup>st</sup> May 2022

The Department's decision is based on agreement with an FCAI member that "the technical requirements of UN Regulation 154 and EU Regulation 2017/1151 are more stringent than those required by ADR 81/02 and there is no internationally accepted procedure for converting these values for OVC-HEVs (and BEV's).

The conversion procedure for enabling WLTC derived values to be reported as NEDC is the CO2MPAS tool and this was, when operational, only for suitable for ICE powered vehicles. On the basis that there is no internationally accepted procedure for converting WLTC values to NEDC for any alternative source powertrain including Hybrid and Mild Hybrid (12V and 48V), FCAI would like to suggest that Hybrid, MHEV and Range Extender (REx) should also be able to utilise WLTC values derived in accordance with UN Regulation 154 (Level 1A or Level 2) or EU Regulation 2017/1151 as the certification evidence values for ADR 81/02 at the applicant's option in lieu of conducting additional, expensive and time/resource consuming testing. We further suggest that this may be able to be extended to all power sources including ICE i.e. no restriction in the use of UN R154 or EU R2017/1151 for the purpose of ADR 81/02.

We seek confirmation that Minor and Inconsequential (M&I) Non-Compliance interpretation will be agreeable for all vehicle configurations described above.

Please let me know whether you'd like to meet to discuss this proposal in more detail or to seek any clarification.

Yours sincerely



Mr Ashley Sanders  
Technical Director  
Mob: +61 (0) 418 823 244  
[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)



FEDERAL CHAMBER  
OF AUTOMOTIVE  
INDUSTRIES

ABN No 53 008 550 347

LEVEL 1  
59 WENTWORTH AVENUE  
KINGSTON ACT 2604  
AUSTRALIA  
PHONE: 02 6247 3811  
FAX: 02 6248 7673

Released under FOI Act by DP17/2024





1<sup>st</sup> November 2022

s47F Director, Sustainable Transport Section,  
Sustainable Transport and Maritime Safety Review Branch  
Surface Transport Policy Division  
Dept of Infrastructure, Transport, Regional Development, Communications and the Arts  
GPO Box 594  
Canberra ACT 2600

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LEVEL 1  
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The conversion procedure for enabling WLTC derived values to be reported as NEDC is the CO2MPAS tool and this was, when operational, only for suitable for ICE powered vehicles. On the basis that there is no internationally accepted procedure for converting WLTC values to NEDC for any alternative source powertrain including Hybrid and Mild Hybrid (12V and 48V), FCAI would like to suggest that Hybrid, MHEV and Range Extender (REx) should also be able to utilise WLTC values derived in accordance with UN Regulation 154 (Level 1A or Level 2) or EU Regulation 2017/1151 as the certification evidence values for ADR 81/02 at the applicant's option in lieu of conducting additional, expensive and time/resource consuming testing. We further suggest that this may be able to be extended to all power sources including ICE i.e. no restriction in the use of UN R154 or EU R2017/1151 for the purpose of ADR 81/02.

We seek confirmation that Minor and Inconsequential (M&I) Non-Compliance interpretation will be agreeable for all vehicle configurations described above.

Please let me know whether you'd like to meet to discuss this proposal in more detail or to seek any clarification.

Yours sincerely

Mr Ashley Sanders  
Technical Director  
Mob: +61 (0) 418 823 244  
[ashley.sanders@fcai.com.au](mailto:ashley.sanders@fcai.com.au)



This message is private and confidential and is intended only for the use of the recipient named above and may be legally privileged and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient you are hereby notified that any dissemination, distribution or copying of the communication is strictly prohibited. If you have received this communication in error, please notify it to the sender and delete the original message and any copy of it from your computer system. Opinions, conclusions and other information in this message that do not relate to our official business should be understood as neither given nor endorsed by this company.

# Vehicle Emissions Forum

Tuesday, 6 September 2022 5:14 PM

FCAI - need evidence based standard, biggest transition in 100 years

Most effective and efficient ways, car fundamental to way of life

Wont bring community along if we don't

88% ICE in 2021, 7% hybrid,

Most Evs will be premium brands, batteries expensive

88% in volume segment

Only 1-2% of LCVs likely to be electric

Small-med EV \$32,500 in 2030, down \$17,400, mid size SUV down \$8,490

Asian markets (ex China) less battery

Vehicles from Thailand unlikely to be electric - likely to limit EV LCV available

Niche product from US form majority of BEV pkup

724,000 home chargers and 25,800 public chargers needed

Prioritise public charging, then fleet/private charging, then non-financial incentives, procurement and purchasing incentives

Want long term target with regular reviews - battery supply uncertain - capacity of mining and refining sector

Bloomberg - expect 40 million units, takes time to turn the tap on - mining and factories

FCAI reviewing voluntary target

Mandatory approach preferred - will make it easier to make business case, countries with targets fed first

Bigger vehicles also makes more difficult

Andrew Moore - Deloitte

Has been active in electrification space, assisted state govts

Unique challenges to increase uptake

Few EV options in larger SUVs and utes, no confirmed plans for RHD productions

Price parity unlikely at volume end by 2030, 65% want models under \$50k and 88% of Evs over 50k

23% share by 2030, very few RHD larger SUVs, utes

Toyota and Ford limited by higher proportion of utes

CO2 target would encourage supply

Proposed instant asset write offs for BEV and PHEVs to support RHD production, \$6k incentive for BEVs under \$45k - would encourage lower cost models

79% would expect to charge at home, positive impact if home chargers were subsidised, including V2G

Cannot assume Evs can be easily accessed

85% of vehicles on road would be ICE/hybrid in 2030 if 57% EV uptake by then

Utes and larger SUVs unlikely to be developed in RHD by then, would need to be developed now

Solar inverter EV charger \$2,500 - rebate could encourage adoption, increased V2G capability

Haven't delved into standard

Minister Bowen

Targets easier to set than meet

Need to get emissions from transport down

EV tax cuts, chargers every 150km

ARENA - funding telegraph chargers

NEVS - real consultation process, will consider fuel efficiency standard

Would like a genuine approach from sector - noted support for 43% redn across diverse stakeholders

Believes people should have the opportunity to buy Evs, supply now the issue

Most people will consider EV if affordable

Prices consequence of existing policy

Committed to release paper in September

Nobody in sector does not support FES

Doesn't see need for ZEV target - wants to maintain choice

Supportive and accommodating policy needed

Open to other measures

Existing policy holding us back

Panel discussion

AAA supportive in principle, need policy where car makers will promote and sell product

Agree need for nationally consistent and holistic approach

Need to consider need for workers and business to adapt

FCAI - suggest there will be a buyers strike if standard is too tough, risk dirtier fleet

Decade of key learnings from other markets - Norway still spending billions in incentives

In midst of supply crisis for new cars - some models have long waiting times

Have resources to support sector, but we are taker of technology - 'tail on the dog'

Need to be technology agnostic - let industry work out the technology

EV target blunt instrument if not affordable - could have unintended consequences

EU target would be very drastic - risk buyers strike, penalising parts of community

Motor trades 38,500 short - additional skills will be required, diminishing labour pool, MTAA forming skills cluster with mining sector

EU standard would require significant changes to consumer preferences

Bridget McKenzie

Wants to understand industry's plans, be constructive, outcomes focused

Welcomes discussion paper, but complex, infrastructure costs, functional challenges

'Physics isn't adding up' can't get minerals out of the ground fast enough

Wider industry impacts - training in new technologies, while supporting existing

Vans less versatile than utes, \$60k to convert Hilux to electric

Infrastructure not there yet, mostly inner urban consumers buying Evs at present

Staged approach - don't want to advantage one sector over another

Won't support shaming use of ICE vehicles or financial advantage well off over another, urban over regional