## Worked examples using the Australian National Greenhouse Accounts Factors (ANGAF) (dcceew.gov.au):

## **BEV worked example:**

In support of the above, the ANGAF outlines a comprehensive approach to reporting greenhouse gas emissions and is aligned to the incoming IFRS S1 accounting standards for climate related financial disclosures. These emissions are expressed on an "equivalent CO<sub>2</sub>" basis, which normalises the greenhouse warming potential of a number of different greenhouse gases back to a common index of a unit of CO<sub>2</sub> emissions. The ANGAF already outline a method for reporting emission per KWh of purchased electricity and per litre of liquid fuel for transport purposes, based on the National purchased electricity grid average. The manufacturer reported emissions of an EV per km would be better expressed in alignment to the definition under the ANGAF. There also needs to be alignment to the manufacturer supplied energy efficiency metric of EVs between current conflicting standards of WLTP, CLTC or NDEC (as this can vary by manufacturer).

**Emissions Factors**: Scope 2 = 0.65kg CO<sub>2</sub>-e per KWh, Scope 3 = 0.08kg CO<sub>2</sub>-e per KWh per kWh **Calculation**: BEV at 16kWh/100km (WLTP) on national grid supplied electricity = 106gm Scope 2 CO<sub>2</sub>-e per km + 13gm Scope 3 CO<sub>2</sub>-e per km = 119gm CO<sub>2</sub>-e per km.

## ICE/Hybrid worked example:

Regarding ICE/HEV/PHEV vehicles, the ANGAF requires that a litre of liquid fuel for transport purposes be reported as Scope 1 (tailpipe emissions per litre of fuel) and Scope 3 (upstream extraction, production, transportation per litre of fuel). We suggest there is a requirement for the manufacturer to use lab reported fuel efficiency metrics on a common standard of combined cycle of highway and city driving, expressed as litres per 100km. This is then converted into a Scope 1 and 3 emissions per km value using the prevailing ANGAF and the OEM supplied vehicle fuel efficiency. Using the ANGAF aligns to the prevailing standard of emissions reports and factors ongoing improvements in the fuel quality in market, as well as the improvement in the vehicle technology.

## Illustrated example with a 2024 Hyundai i30 2.0 GDi (Manual)

Scope 1 – direct emissions (tailpipe)

Energy Content factor (GJ per unit of fuel) **34.2** x Scope 1 Emission Factor (kg CO2-e/GJ) for combined gases **67.62** = **2.3126** kg per litre of gasoline x OEM supplied fuel efficiency **7.3** I/100 km = **16.8820** kg Scope 1 CO2-e/GJ for combined gases per 100 km = **168.82gm** CO2-e/km.

Scope 3 – indirect emissions (upstream extraction, production, transportation per litre of fuel) Energy Content factor (GJ per unit of fuel) **34.2** x Scope 3 Emission Factor (kg CO2-e/GJ ) **17.2** = **0.588** kg per litre of gasoline x OEM supplied fuel efficiency **7.3** I/100 km = **4.2942** kg Scope 3 CO2-e/GJ per 100 km = **42.9** gm CO2-e/km

Total Scope 1 and Scope 3 emissions per km = 168.82gm + 42.9gm = 211.72gm/km This is in comparison to the OEM reported CO<sub>2</sub> emissions of 170gm/km



# **Organisation questionnaire response**

Privacy Setting: I agree for my response to be published with my name and position.

What organisation do you	FleetPartners Group Limited
represent?	
(required)	
What is your name?	Damien Berrell
(required)	
What is your position at the	CEO
organisation?	
(required)	
Please rank the proposed options	Option A - 3rd, Option B - 1st, Option C - 2nd
in order of preference.	
(optional)	
Briefly, what are your reasons for	FleetPartners is a leading fleet management organisation operating
your choice?	across various locations in Australia and New Zealand. Our company
(optional, 3000 character limit)	achieve this purpose by providing vehicle finance and management
	solutions to enable our customers to achieve their mobility, financial
	and environmental goals. FleetPartners plays a significant role in the
	12.000 new vehicles per annum and selling 10.000 vehicles per annum
	to Australia's used car market.
	A NVES structure will provide a platform for improved adoption of low
	and zero emissions vehicles by promoting EV supply to the Australian
	market, improving options for consumers and businesses to select EV
	models that meet their usage requirements, improve the whole-of-life
	reduce vehicle emissions. Option B closely aligns with leading
	international emissions standards and will provide the most effective
	pressure on emissions reduction in Australia, providing a balanced
	approach to encourage OEM supply partners to progressively support the Australian market and discourage high emission vehicles
	the Australian market and alseourage high emission vehicles.
	Option B is preferred over option C as it provides a more reasonable
	transition period for OEMs. We believe option A is not aligned with
	disproportionately favors hybrid technologies relative to their
	emission reduction contribution, and the pooling concept between
	unrelated suppliers is unclear in its intent and operation. It is
	important that the implemented emissions reduction mechanism
	only manufacturers and traditional vehicle manufacturers re-tooling



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	their technologies and production capacity. The success of both types of suppliers is required to ensure the breadth and depth of supply chain support for the Australian market given our unique transport needs in a lower priority right hand drive market setting.
Do you support the Government's preferred option (Option B)?	Yes
(optional)	
Do you have any feedback on the analysis approach and key assumptions used?	Under the proposed NVES, the calculation of debits and credits is reliant on the manufacturer's provision of laboratory emissions test results which have historically analysed tailpipe emissions of an internal combustion engine vehicle.
(optional, 3000 character limit)	A BEV has no tailpipe emissions, but this doesn't mean that kilometres travelled is 0gm CO2-e per km. The electricity source used to charge the BEV is critical to understand. The proposed NVES may create a distortion and over emphasize the greenhouse abatement of a BEV relative to all other engine technologies. This will have the directional effect of diluting the overall effectiveness of improving the emissions of the total mix of vehicles sold in the market (eg BEV over subsidises ICE, HEV and PHEV). Refer to worked examples submitted under question 11.
	We agree with the impact analysis, which identifies the NVES IT platform requirements as the key risk for implementation. The scoping, development and testing of this platform is crucial to the successful implementation of the NVES and should be a priority as early as possible. It would be useful to understand how the ongoing reporting and communication aspect of the NVES will be facilitated. Previously, similar data has been available through the FCAI, via VFACTS – we seek clarity on whether VFACTS will be used for the NVES and if not, then further consultation is encouraged. VFACTS is a commonly accepted and proven method for obtaining relevant vehicle data and is heavily relied upon in the auto market, particularly the vehicle leasing industry.
	It is unclear from the impact analysis if ANCAP ratings were considered in the credit/debit system. For example, if EVs are imported and sold with a lower ANCAP rating, would these vehicles still attract a credit? This should be further considered, particularly so as not to dilute the safety of vehicles on our roads. Corporate demand for BEVs with poor ANCAP ratings will likely be impacted due to WHS obligations placed on 'Persons Conducting a Business or Undertaking (PCBU)'.
	NVES success is dependent upon ongoing supply & demand side government support. The repeal of the NZ Clean Car Discount appears to be materially impacting demand, in turn driving OEM discounting behaviour. We recommend the impacts are closely monitored and learnings applied to the ongoing maintenance of NVES in Australia. Finally, developing supporting policies and legislation relates to



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	charging infrastructure and battery replacement, destruction and recycling, will be essential to support the success of a NVES. Government support will drive solutions to these challenges, ensuring demand for reduced emissions vehicles closely correlates to the increased supply and optionality that the NVES could achieve. Refer to Q8 for further details regarding transition challenges faced by corporate lessees.
Briefly, describe how the NVES might impact your organisation (optional, 3000 character limit)	FleetPartners is committed to providing vehicle finance and fleet management solutions for a range of vehicle classes and lower emissions technologies including hybrid, plug in hybrid and battery electric vehicles. It is not anticipated that the NVES will result in negative impacts to our business, rather it may accelerate customer adoption of lower emission vehicles, bringing forward the re-mixing of our portfolio of assets.
	Our customers face several challenges which impacts the demand for no or low emission vehicles, including: Vehicle range anxiety and charging infrastructure availability which requires a significant step change in infrastructure investment including solutions to strata/inner city charging challenges, in particular government policy to legislate retro fitting of charging infrastructure into existing apartment dwellings, would be key to developing a charging network which can be expanded at scale
	Education campaigns to correct the myths regarding whole of life emissions of EVs compared with ICEVs Balancing operational needs of vehicles weighed against available BEV / reduced emission vehicles available in Australia, where there are currently no viable EV alternatives for certain vehicle use scenarios.
	Rental disparity between EVs and ICEVs, primarily driven by elevated purchase prices for EVs (including technological obsolescence risk and OEM discounting behaviour) creating uncertainty regarding future values of used EVs, as evidenced by residual value experiences in overseas markets. Government incentives (which has been a key driver for increased consumer demand following the FBT exemption for Novated Leases) for businesses to switch to EVs, will play a significant role in driving the demand side by bridging a portion of the gap in the initial investment cost of EV vs ICE.
	As outlined in our response to question 7, some of these challenges can be addressed in combination by a robust IT platform successfully facilitating the NVES, introduction of policies and legislation to support supply, demand, and infrastructure, and clarity of monitoring / data availability, which is accessible to consumers and fleet operators alike, as part of the implementation. Incentives that could alleviate some of the price disparity between EV and ICE vehicles, specific to corporate leasing for passenger, light commercial and heavy commercial assets, would be highly beneficial. The FBT exemption for eligible EVs has shown a material shift in demand, indicating an equitable incentive



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	would drive similar demand if introduced for light commercial vehicles with a payload greater than one tonne. Per VFACTS data, in 2023, 60% of all LCVs and 30% of Passenger vehicles and SUVs sold in Australia were registered in a business name. When considering the volume of business use vehicles sold annually in Australia, a lack of beneficial policy and incentives could contribute to lower or plateaued new vehicle demand, irrespective of expanded supply.
Who should the regulated entity be?	It is unclear whether the vehicle manufacturer or the distributor is currently the "type approval holder" under the Road Vehicle
	Standards Rules 2019. Our preference is that the manufacturer of the
(optional, 3000 character limit)	vehicle is deemed the supplier as this creates the most direct pressure on the technology and supply chain investments required to lower emissions across the mix of vehicles that they sell. This also ensures that any changes to the way in which vehicles are retailed in the Australian market does not erode the effectiveness of the NVES. We recommend that the proposed sale event that will trigger the creation of a credit / debit is clearly defined throughout this feedback period, including an assessment of the potential risks associated with this definition. For example, the current framework could be interpreted that the sale event occurs when inventory moves between the manufacturer and a dealer or reseller within Australia.
	Our recommendation is that the point of sale is the sale to the end user with the credit or debit calculated on the configuration and corresponding weight of the vehicle at the time of that sale.