

## Sales of Zero Emission Trucks in Australia

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 Chief Technical Officer - TICQTLC webinar- Flicking the Switch<br>$15^{\text {th }}$ February 2024

## TIC Members

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## Four themes:

1. The sales numbers (> 3.5 t GVM)
2. Who's buying and why?
3. Road blocks (real and perceived)
4. What might 2030 look like (sales and market uptake)?

Diesel, Electric, Hydrogen:

## 1. The sales numbers ( $>3.5 t$ GVM):

| Year | Total truck <br> sales | Battery Electric <br> truck sales | Diesel/Electric <br> (Hybrid) truck sales | Total Low and Zero <br> Emission trucks |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 2021 | 41,404 | $4(0.01 \%)$ | $22(0.05 \%)$ | $26 \quad(0.06 \%)$ |
| 2022 | 44,379 | $27(0.06 \%)$ | $72(0.16 \%)$ | $99(0.22 \%)$ |
| 2023 | 47,757 | $153(0.32 \%)$ | $214(0.45 \%)$ | $367(0.77 \%)$ |

Note: Does not include LDV Brand

Diesel, Electric, Hydrogen:

## 1. The sales numbers (>3.5t GVM):

| TIC Heavy Vehicle <br> Segment | TIC Definition | Percentage of Sales | Majority Application |
| :---: | :---: | :---: | :---: |
| Light Van** | 3501 kg to 8000 kg | $0 \%$ | - |
| Light Truck | 3501 kg to 8000 kg | $83 \%$ | Urban/Metro distribution, <br> back to base daily |
| Medium Truck | 8001 kg to 16000 kg | $16 \%$ | Urban/Metro distribution, <br> back to base daily |
| Heavy Truck | Greater than <br> 16000 kg | $1 \%$ | Urban/Metro distribution, <br> back to base daily |

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## Diesel, Electric, Hydrogen:

## 2. Who's buying and why?

$>$ Typically large and medium fleets (not small fleets, or owner drivers)
> Approx $10 \%$ indicated their purchase was for trials to determine the economic/operational feasibility of a BEV or Hybrid truck vs a diesel truck
> Over $80 \%$ of customers indicated their main reason for purchasing a zero emission truck was to meet Corporate Social Responsibility goals/targets
> No surveyed customer purchased a BEV truck believing its whole of life cost would less than an equivalent diesel truck........
> Metro/Urban use, generally freight distribution, back to base each day/night, slow charging (+4hrs) on freight company's premises
$>$ Less than 10 of the 367 sales received any government financial assistance

## 3. Road Blocks - Real:

$>$ Upfront purchase price (perceived?)
$>$ Charging infrastructure, cost and availability (especially for leased premisses)
$>$ No axle mass concessions (effects all zero emission trucks above 16t GVM)
> Still no 2.55 m maximum vehicle width
$>$ Unknown future/cost of Road User Charges
$>$ Less vehicle flexibility
$>$ Unknown resale value, Total Cost of Ownership (perceived?)
$>$ Some, or all, of the above lead to "uncertainty" and it simply becomes easier for an operator to stay with what they know (diesel)

## 3. Road Blocks - Real:

$>$ There is no viable technical or economic zero emission solution for many road transport sectors (linehaul, mass constrained freight, remote area)


## 3. Road Blocks - Perceived

> Upfront purchase price - lease or finance the truck
$>$ Supply of trucks - TIC members could have provided 3 to 4 the number of trucks in 2023, it was customers who were missing!
> Unknown future price of electricity, or price relativity to diesel
> Unknown resale value - valid if the truck is purchased by operator, generally not an issue for leased trucks

## 4. What might 2030 look like(sales and market uptake)?

| Year | Total truck sales | Battery Electric truck sales |  | Diesel/Electric (Hybrid) truck sales |  | Total Low and Zero Emission trucks | All these sales |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 2021 | 41,404 | 4 (0) | 0.01\%) | 22 ( | (0.05\%) | 26 (0.06\%) |  |
| 2022 | 44,379 | 27 | (0.06\%) | 72 | (0.16\%) | 99 (0.22\%) |  |
| 2023 | 47,757 | 153 | (0.32\%) | 214 | (0.45\%) | 367 (0.77\%) |  |
|  |  |  |  |  |  |  | $\begin{aligned} & 2-3 \% \text { of } \\ & \text { the fleet } \\ & \text { in } 2030 \end{aligned}$ |
| 2030 est | 50,000 | 10,500 | (21.0\%) | 2000 | (4.0\%) | 12500 (25\%) |  |




[^0]:    ** Does not include LDV Brand

