



# EVs IN A RURAL COUNCIL

Austin Morris



Lockhart to:  
Wagga: 65km  
Sydney: 521km  
Albury: 105km  
Melbourne: 401km

# EVs IN LOCKHART



9/15/2023

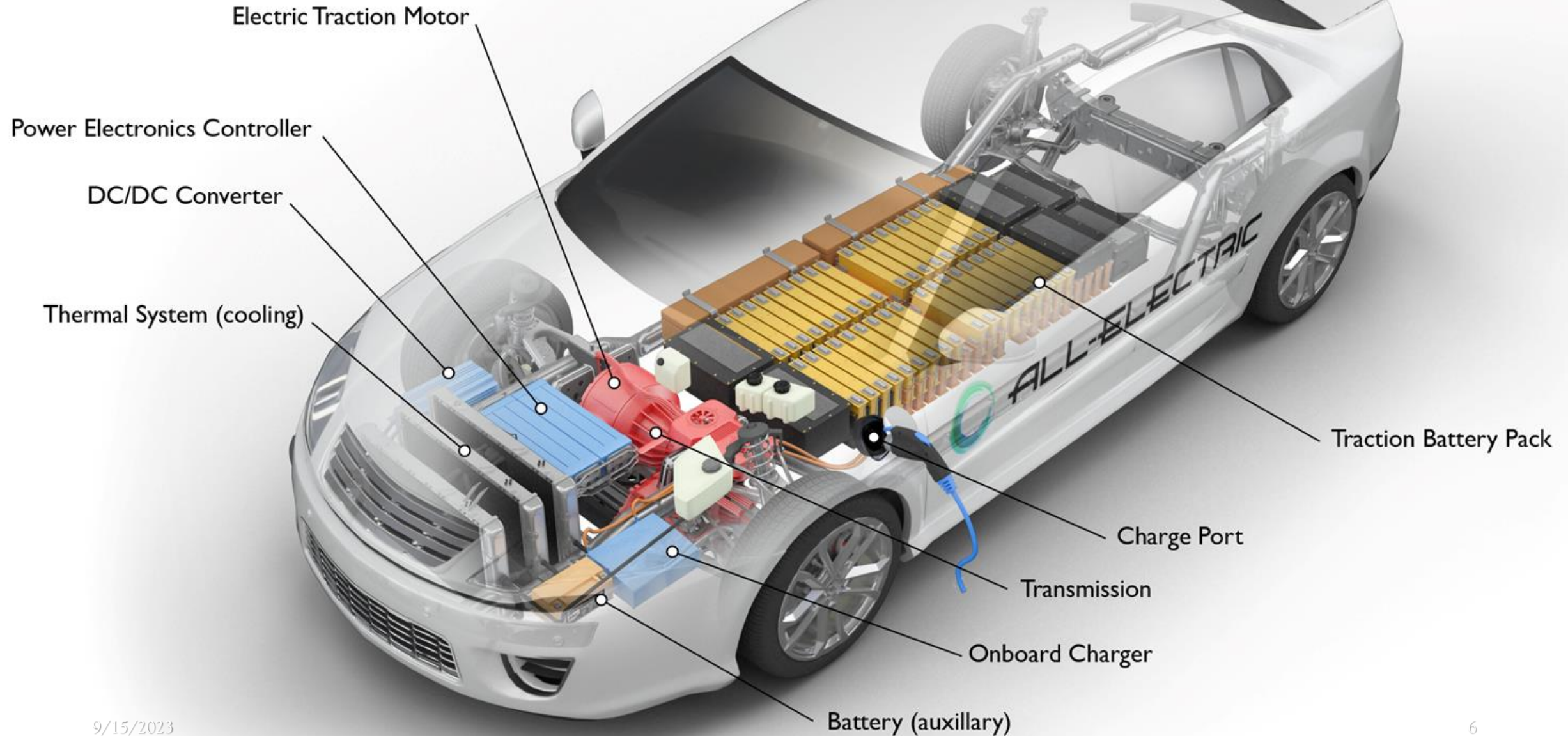
# EVs AREN'T COOL





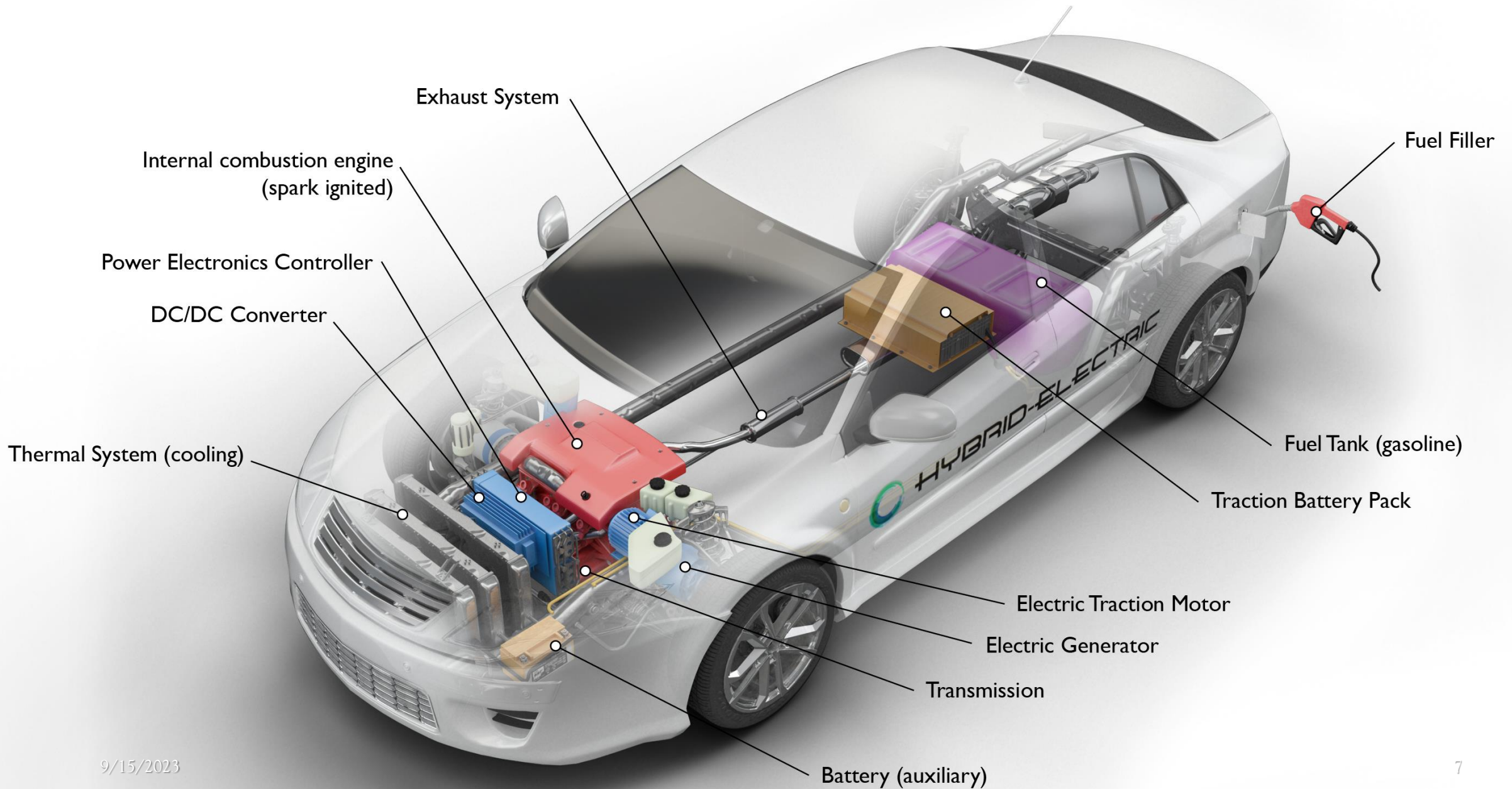
# EV vs PHEV vs ICE vs FCEV

# ELECTRIC VEHICLE (EV)

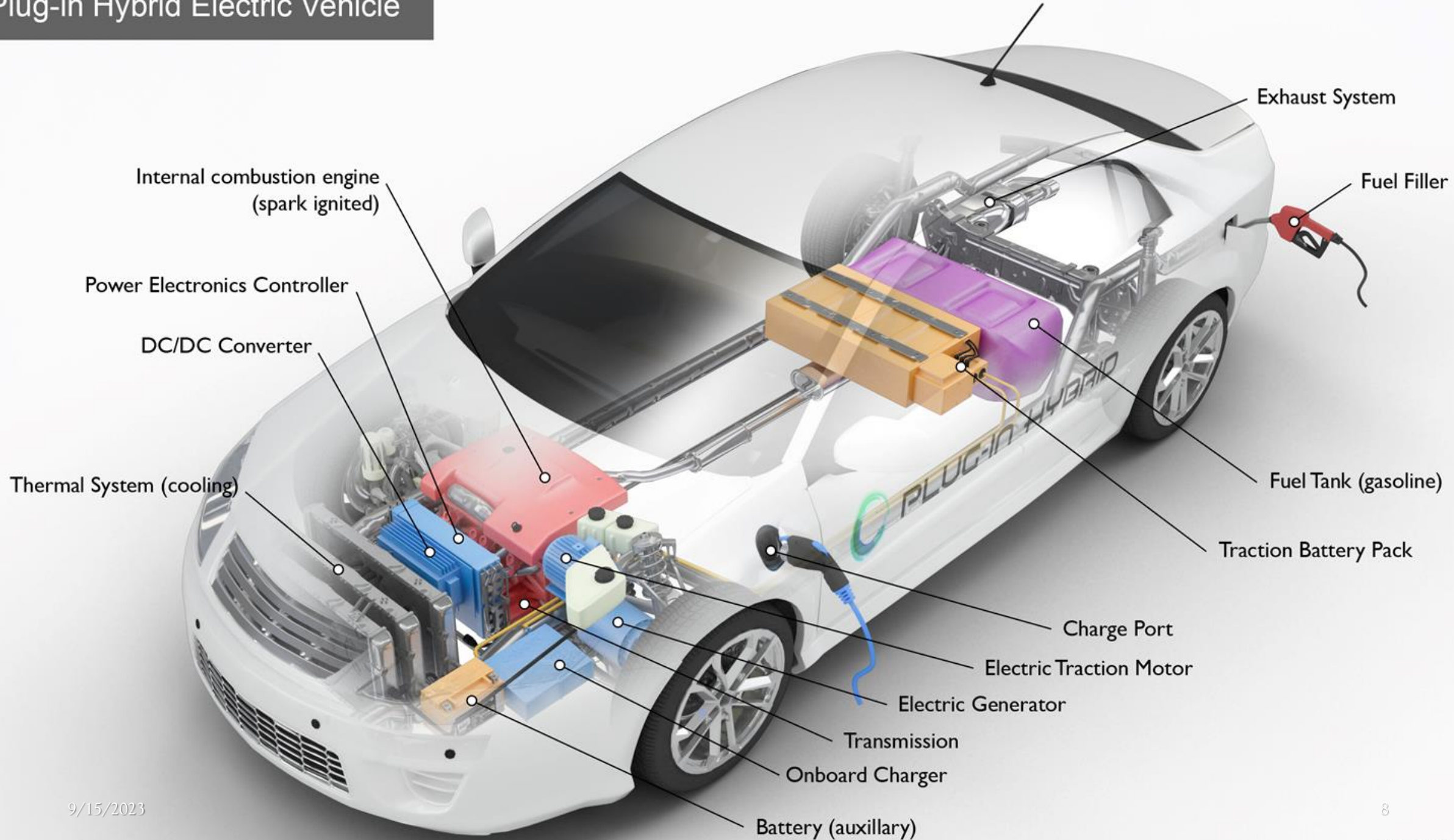


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# Hybrid Electric Vehicle

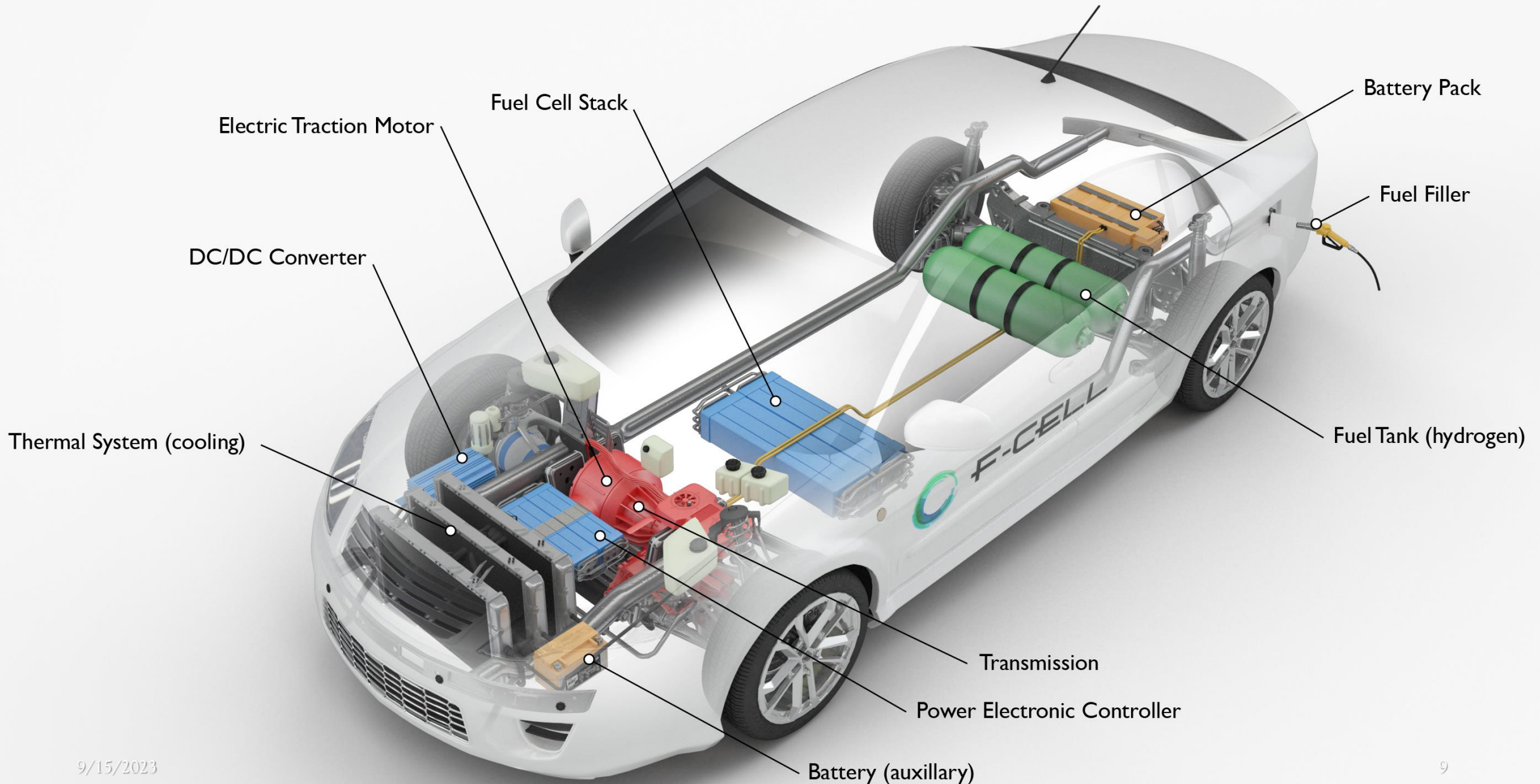


# Plug-in Hybrid Electric Vehicle





# Hydrogen Fuel Cell Electric Vehicle





# INTERNAL COMBUSTION ENGINE (ICE)

EVS ARE COOL!





<https://www.youtube.com/watch?v=DyRJH8dVAhg>



9/15/2023

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# CO<sub>2</sub> EMISSIONS

476g/km

- Manufacturing of EVs uses 18% less emissions (and lowering)
- Vehicles emit 3x less
- Real life recycling 99.5% extraction of lithium, nickel and cobalt

153g/km

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Pajero Sport

\$44,940

FBT      \$7,948

Total      \$52,888



Tesla Model 3

\$57,400  
(4 EVs in \$40-50k range)

Exempt

\$57,400

# FRINGE BENEFITS TAX EXEMPTION (PRIVATE USE)

- Battery Electric Vehicle (BEV/EV) – exempt
- Fuel Cell Electric Vehicle (FCEV – exempt
- Plug-in Hybrid Electric Vehicle (PHEV) – exempt until 1 April 2025



# NSW Government Funding



## Electric Vehicle Rebate

\$3,000 EV rebate in NSW – open to any buyer for first 25,000 vehicles  
Full battery electric vehicles or hydrogen fuel cell electric vehicles

As at 31 July 2023 7,821 rebates have been paid.

Approximately 31%.

Also BEVs FCEVs stamp duty exempt

Tesla = \$1,722 saving.

New cost = \$57,400 - \$3,000 - \$1,722 = \$52,678



# NSW Government Funding



## EV Fleet Incentive

- Fleet greater than 10 vehicles – most councils
- Based on Total Cost of Ownership (TCO) and forecast reduced emissions
- To replace ICEVs, HEVs, PHEVs
- Funding for new BEV, FCEVs and charging infrastructure
- Application via bidding platform



- Two rounds of bidding
  - Estimated km/year
  - Type of vehicles
  - Can refine bid
- \$7,500 vehicle incentive
- \$400 toward charger installation

Total Cost:  $\$52,678 - \$7,500 = \$45,178$



Pajero Sport

\$44,940

FBT \$7,948

Total \$52,888



Tesla Model 3

\$57,400  
(4 EVs in \$40-50k range)

\$0  
Minus rebates and incentive

\$45,178



## Operational Costs

Based on 15,000km

Medium size petrol ICE

\$12,630

Tesla Model 3

\$6,547

Vehicle	Consumption	TOU	Rate	Cost/100km	Cost/15,000km	Difference
Camry	5.4L/100km		2.07/L	\$11.18	\$1,677	-
Tesla	15kWh/100km	Supercharger	0.58c/kWh	\$8.70	\$1,305	-\$372
		Peak	0.69c/kWh	\$10.35	\$1,552	-\$125
		Shoulder	0.36c/kWh	\$5.40	\$810	-\$867
		Off-Peak	0.21c/kWh	\$3.15	\$472	-\$1,205
		Solar	0c/kWh	\$0	\$0	-\$1,677



## Emission Reductions

Based on 15,000km

Medium size petrol ICE  
(gCO<sub>2</sub>e/km)

232

Tesla Model 3  
(gCO<sub>2</sub>e/km)

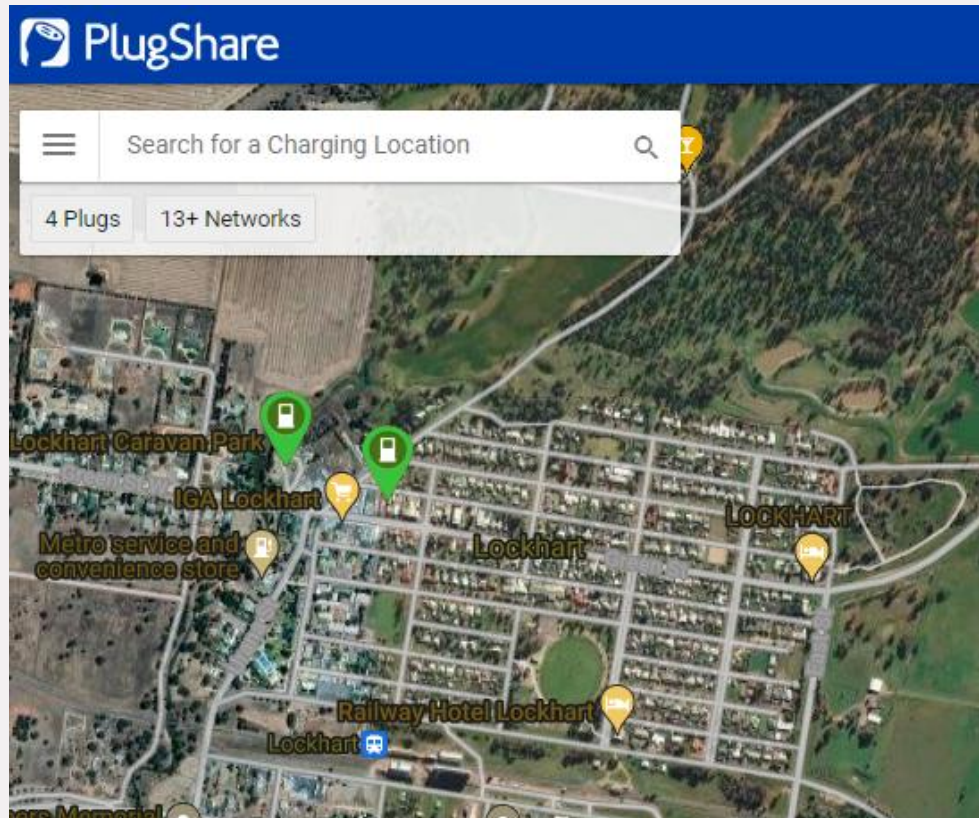
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Lower purchase price ✓  
Lower operational costs ✓  
Fewer emissions ✓



# Destination Charging

In addition to EV incentive grant, Council received funding for 6 destination chargers in the shire. Must be on Council owned land and publicly accessible.



Council received 75% of charger costs and \$1,000 towards installation. Council charges fees based on kWh and idle fees. Free for Council vehicles.



# The Rock welcomes new electrical vehicle charging grounds



By Taylor Dodge

Updated June 30 2023 - 6:14pm, first published June 28 2023 - 1:30pm

0 Comments



Lockhart Shire mayor Greg Verdon welcomes new assets to The Rock Recreational Grounds. Picture by Taylor Dodge

Riverina towns are hoping to boost tourism with the addition of four