



Electric Vehicles

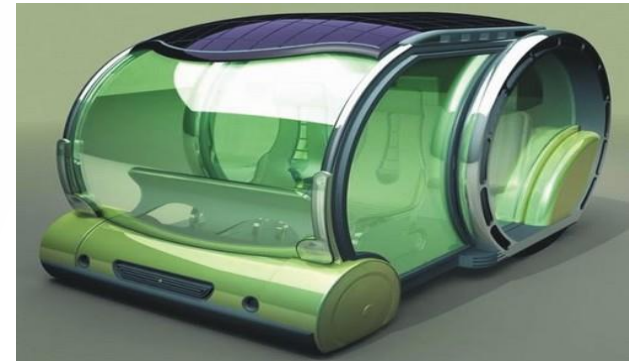
Sustainable, Cost-Effective, Fun Transport

SBN Business Connector Event



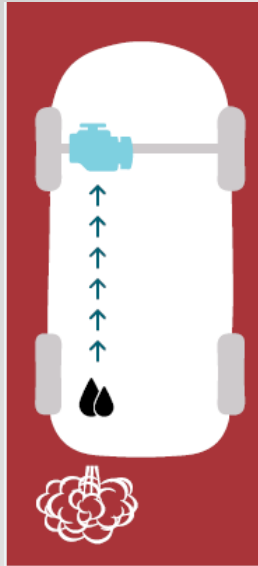
Nigel Purdy
Unison Networks

6 Sept 2018

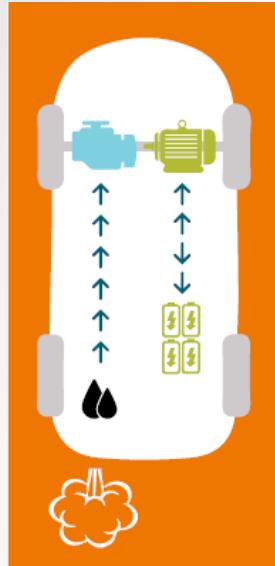


What counts as an EV?

Not "ICE" Vehicles

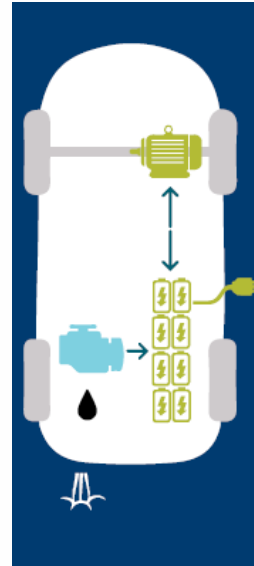


Fuel

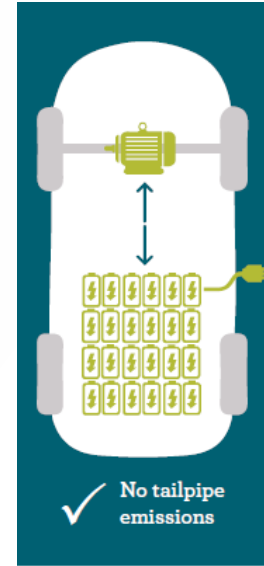


Fuel-Hybrid

Vehicles that plug-in



Plug-In Hybrid



Battery



Who Makes EVs?



EVs are Ideal for NZ & NZ'rs



Total life cycle CO₂-equiv emissions reduction: 60%

Very Low Running Costs - How?

- *Simplicity and Efficiency*



Motor



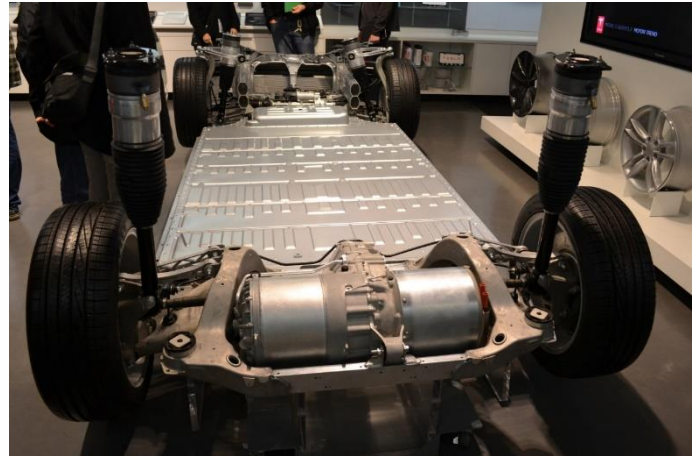
Battery



Controller

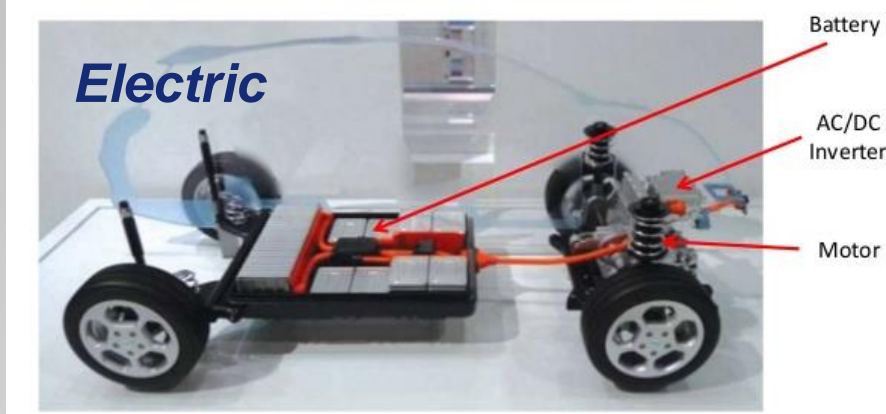


Body/Chassis



Tesla – Chassis/Battery & Motors

Low Running Costs



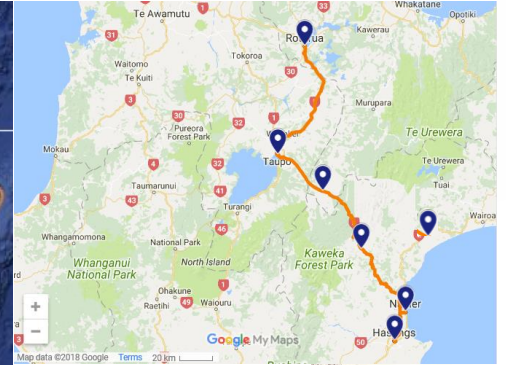
Efficiency:
90+% for EVs
20-25% for an "ICE"

Operating Costs:
"Fuel" 30c/litre equiv.
<\$200 p.a. maintenance

How & Where to Charge?



At home/work



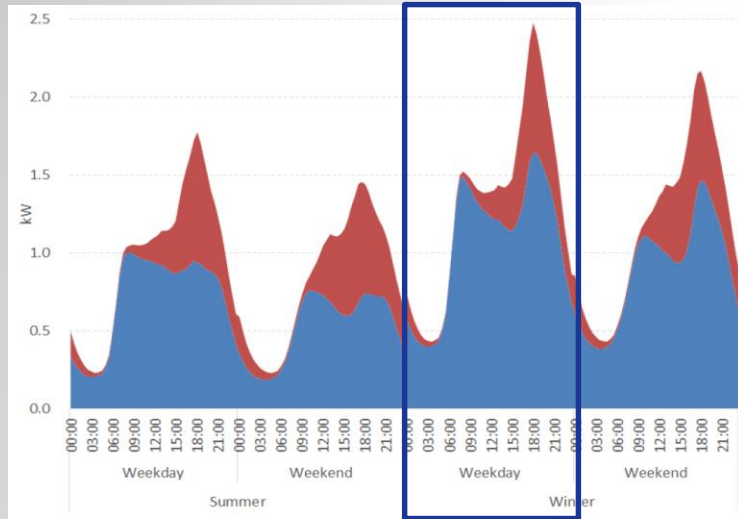
Out and about



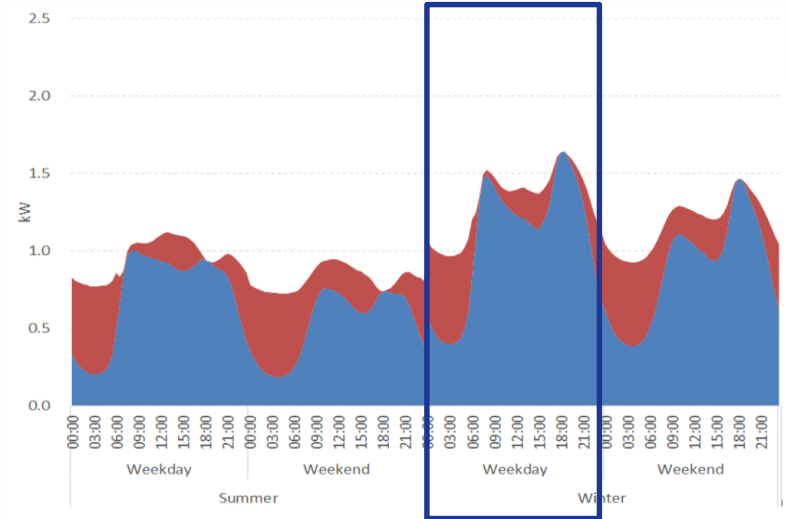
When to Charge?

Impact / Requirements of Distribution Networks

“Passive” EV Charging



“Smart” EV Charging



Pre-EV demand
Plus EV charging

What's Next?

