



Australia's National Science Agency

Draft projections

Electric and fuel cell vehicle projections

Paul Graham | 31 March 2021

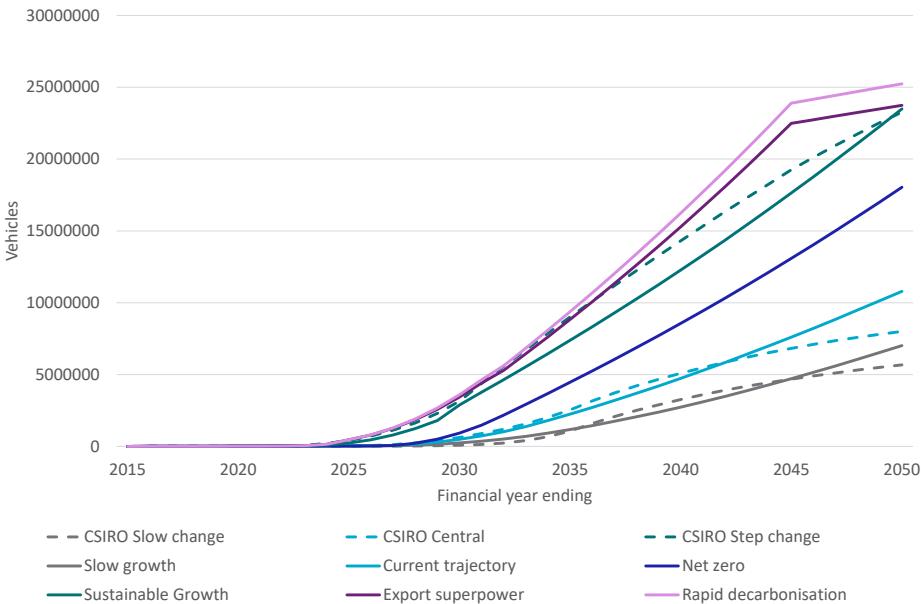
Key assumptions

These assumptions are unchanged from last FRG

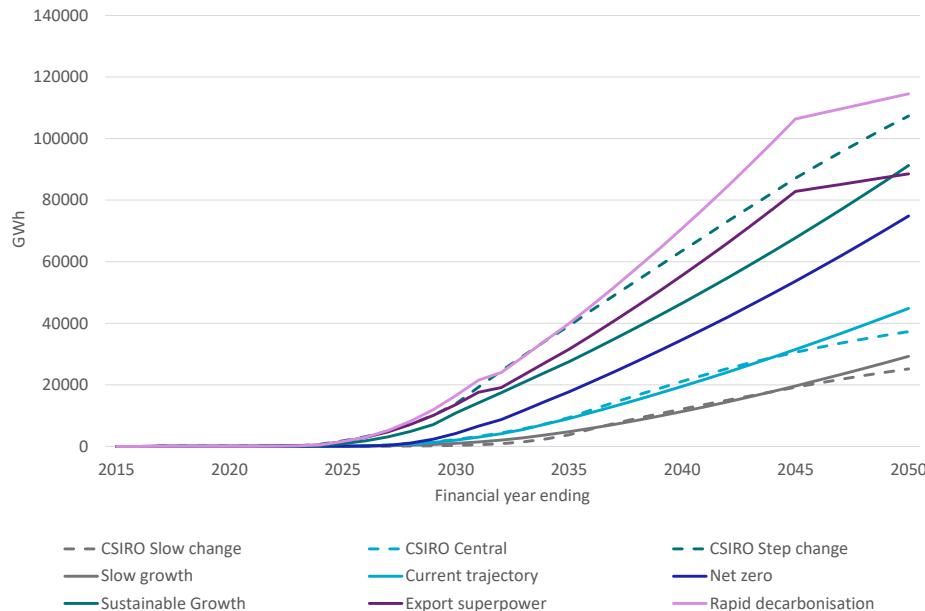
	Slow change 2020	Central 2020	Step change 2020	Slow growth	Current trajectory	Net zero	Sustainable growth	Export super power	Rapid decarbonisation
ICEs not available from	NA	NA	2040	2070	2060	2040	2040	2030	2030
ICEs deregistered	NA	NA	2050	NA	NA	2055	2050	2045	2045
Max market share SREV	12%	15%	33%	12%	15%	16%	25%	31%	31%
Max market share LREV	46%	57%	100%	46%	57%	100%	100%	100%	100%
Max market share FCV	4%	10%	10% light 50% trucks	4%	8%	8% light 30% trucks	10% light 50% trucks	30% light 90% trucks	10%
Timing of SREV parity	2035	2030	2025	2035	2030	2030	2025	2025	2025

Number of vehicles and consumption NEM (BEV)

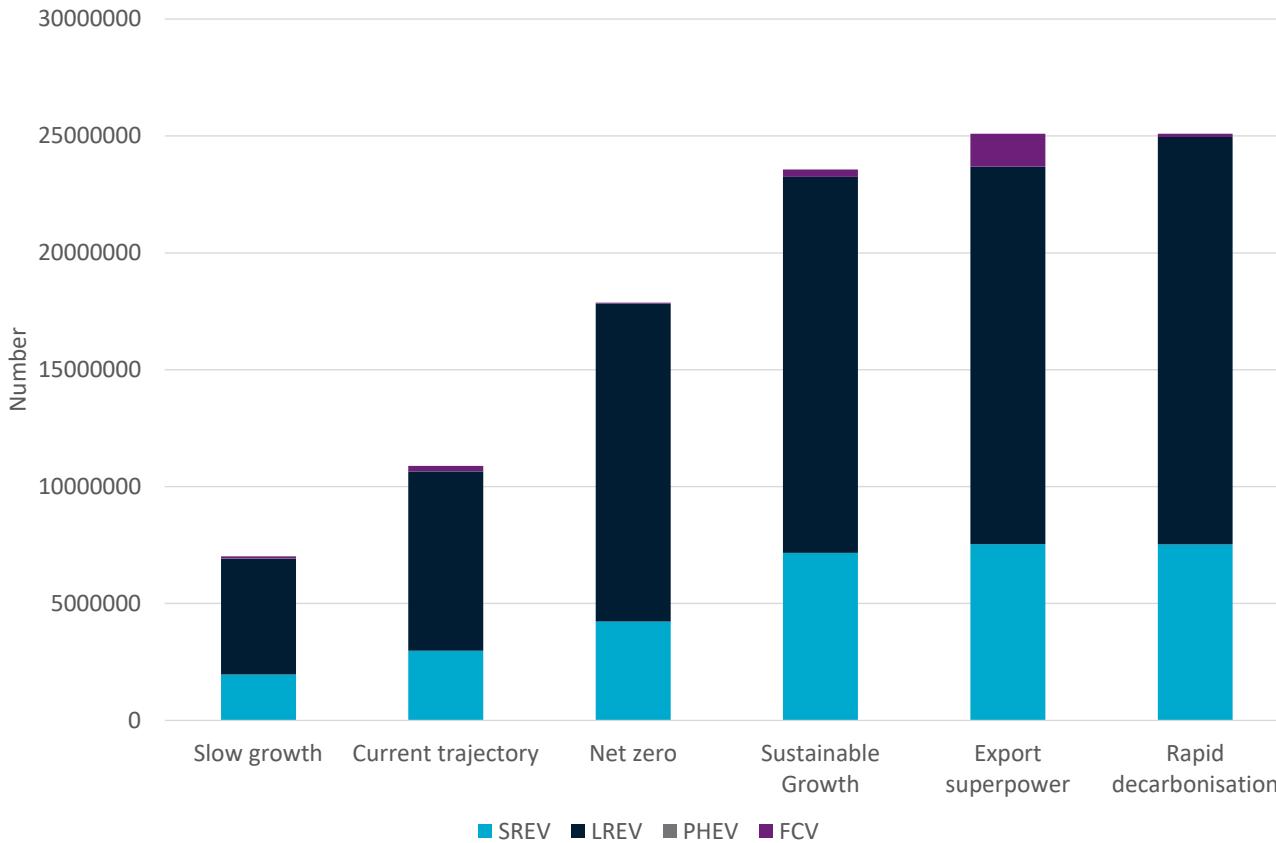
Vehicles



Consumption



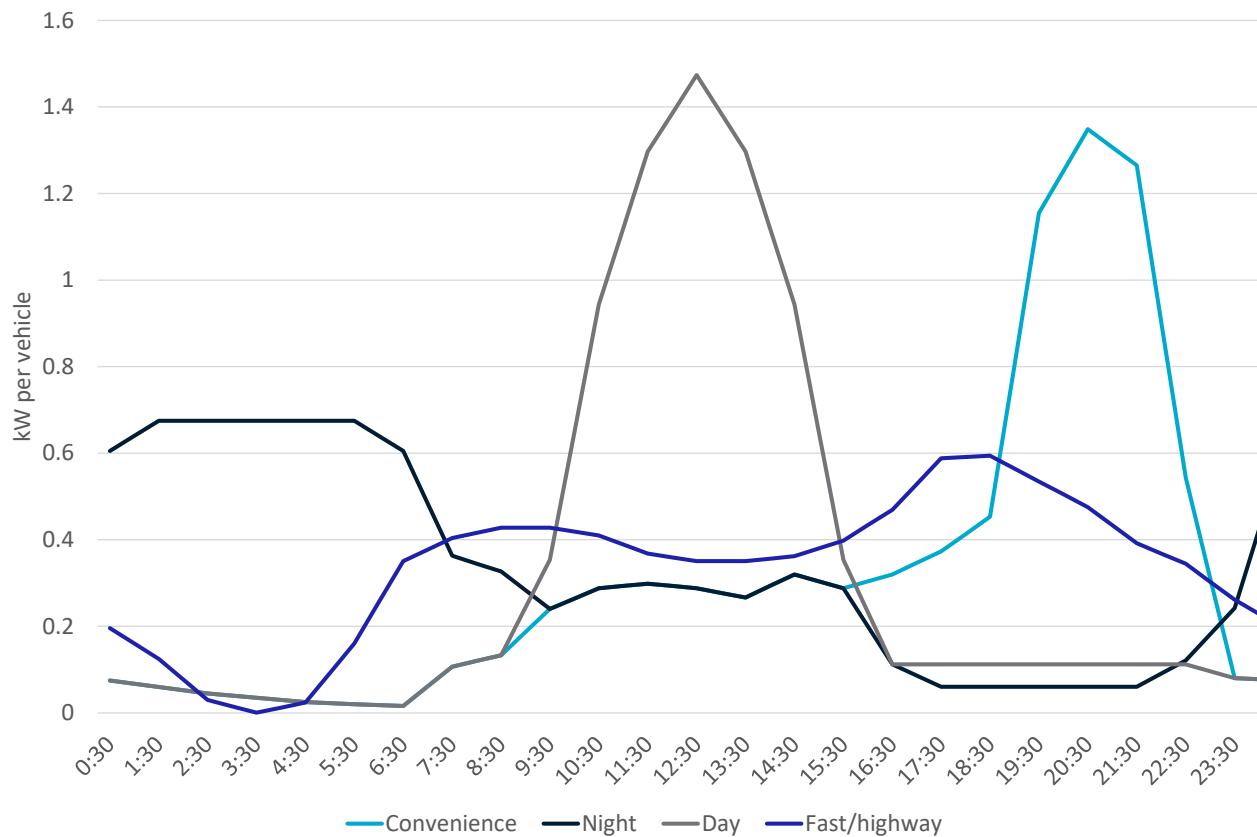
Number by technology type 2050, NEM



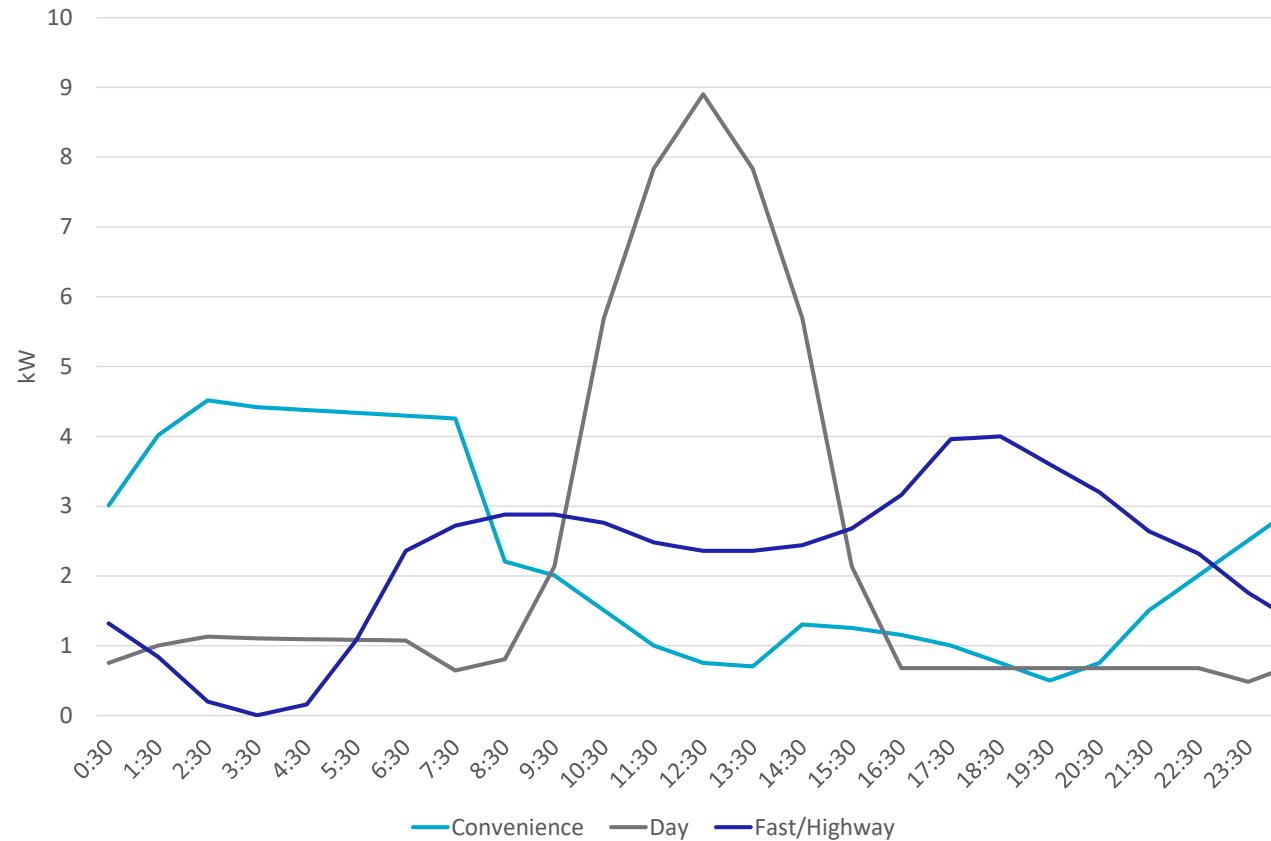
Short range electric (SREV) limited by two car households

Plug-in hybrid EVs difficult to justify economically once long range EVs (LREVs) are cheaper to run than internal combustion vehicles

Estimated EV charge profiles: medium passenger vehicle



Estimated EV charge profiles: commercial rigid truck



Thank you

Energy

Paul Graham

Chief Economist Energy

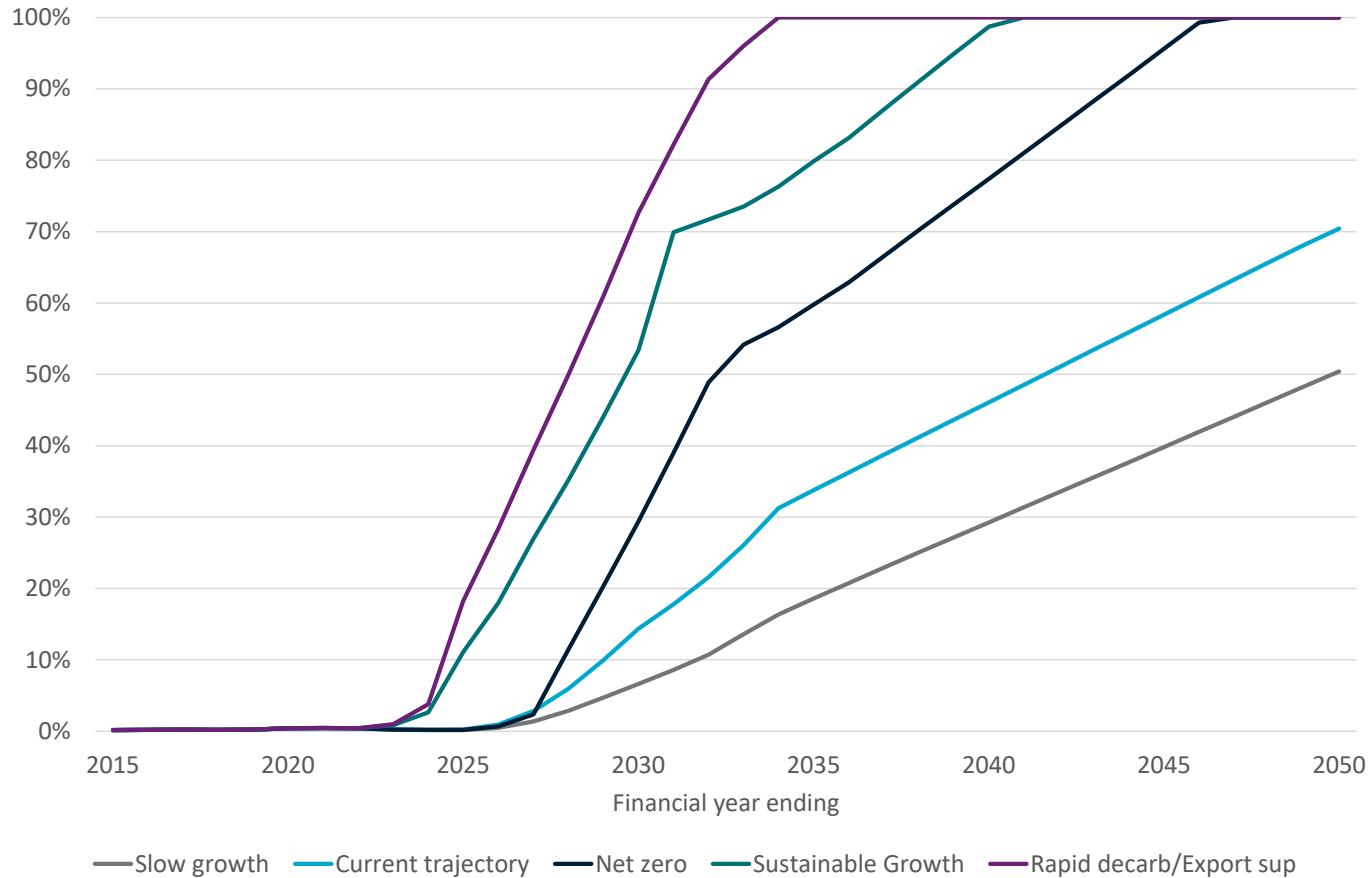
+61 2 4960 6061

paul.graham@csiro.au

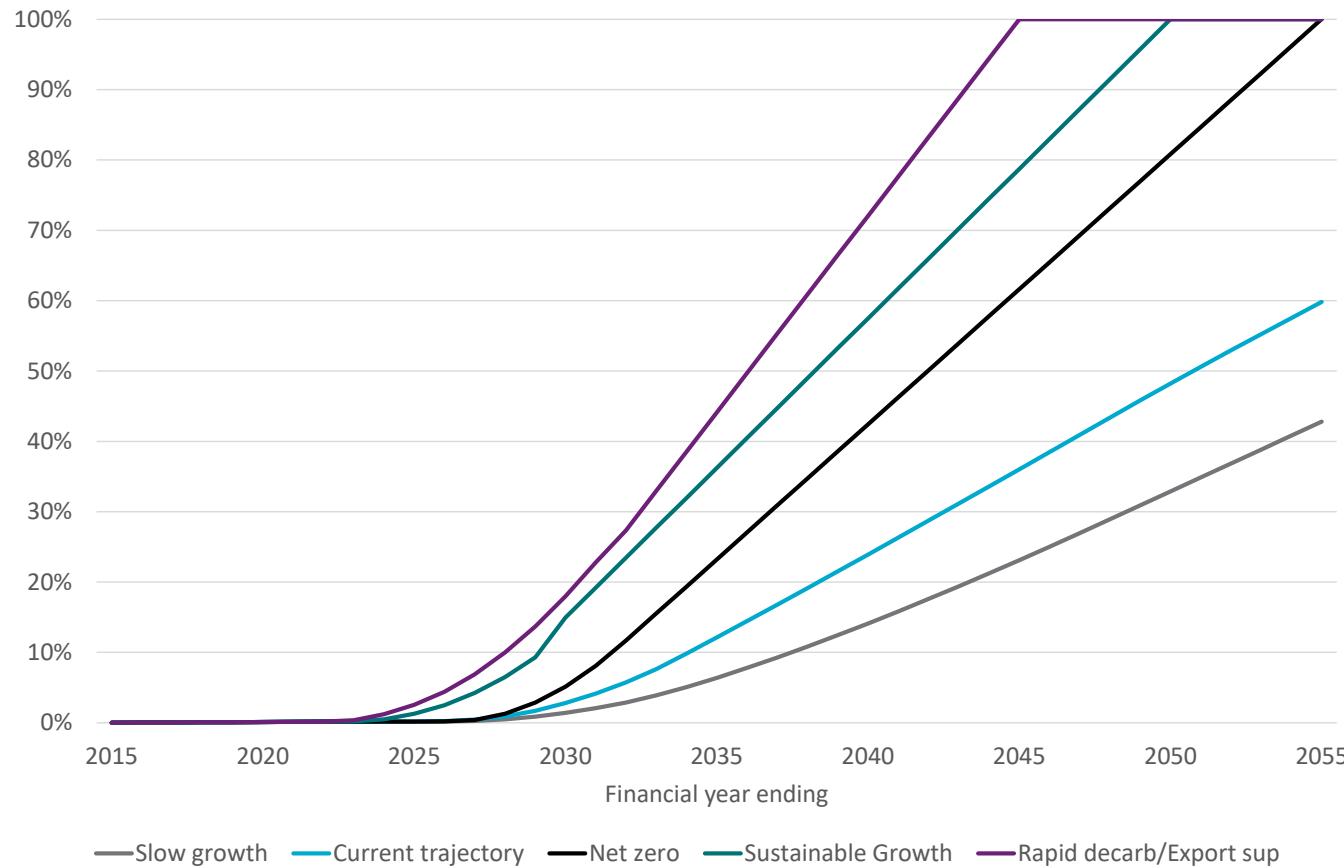
Australia's National Science Agency



Sales share EV

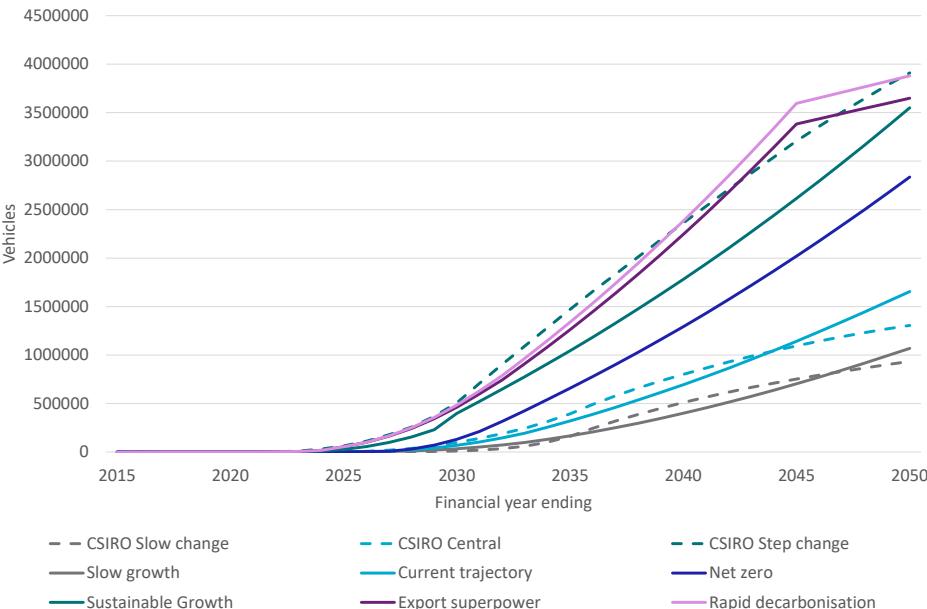


Fleet share EV

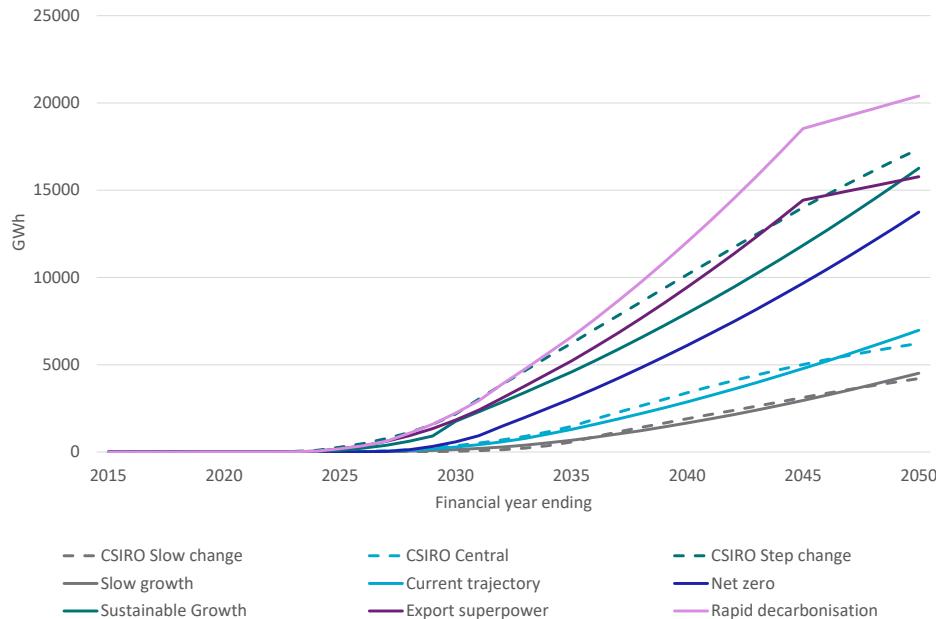


Number of vehicles and consumption WEM (BEV)

Vehicles



Consumption



Number by technology type 2050, WEM

