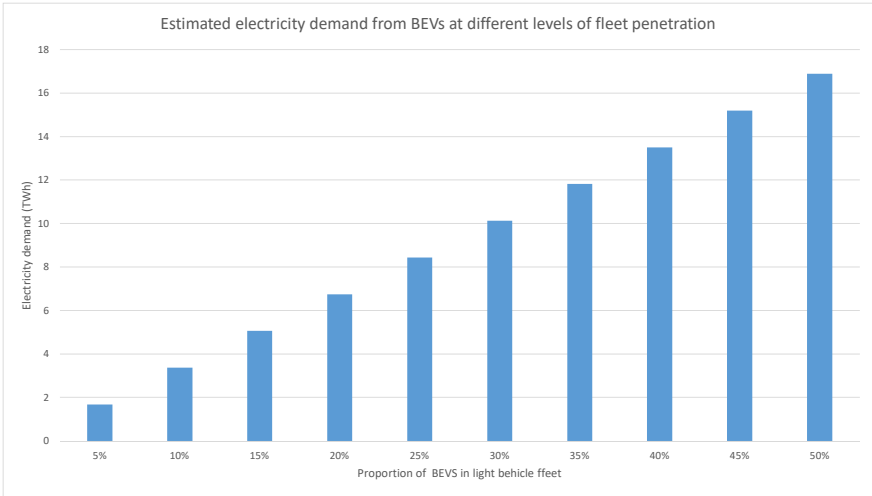
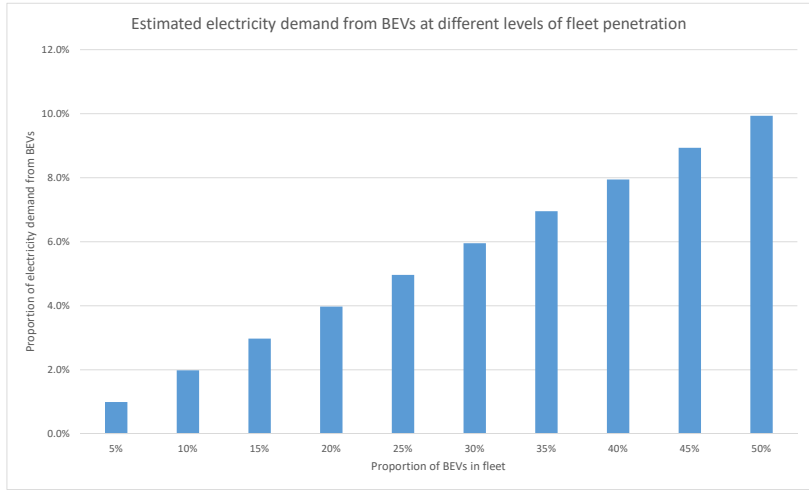


Number of EVs in fleet (based on ABS data)	Proportion of fleet (%)	BEV proportion of overall electricity demand (%)	Annual BEV contribution to operational demand	Forecast 2030 total operational demand inc EVs (GWh)
733962.3	5%	0.99%	1.69	169,902.19
1467924.6	10%	1.99%	3.38	169,903.88
2201886.9	15%	2.98%	5.07	169,905.57
2935849.2	20%	3.98%	6.76	169,907.26
3669811.5	25%	4.97%	8.44	169,908.94
4403773.8	30%	5.96%	10.13	169,910.63
5137736.1	35%	6.96%	11.82	169,912.32
5871698.4	40%	7.95%	13.51	169,914.01
6605660.7	45%	8.95%	15.20	169,915.70
7339623	50%	9.94%	16.89	169,917.39



Assumptions:

Consumption per car/year (GWh) 0.002300963 Based on GVG data in next sheet (which is in a wh/km format), multiplied by number of km below (ABS). Converted from a Wh/km unit to a GWh/km unit.

Total passenger vehicle fleet size: 14,679,246 Jan 31 2020 - ABS motor vehicle census

Average km/year for passenger vehicles 13716 ABS

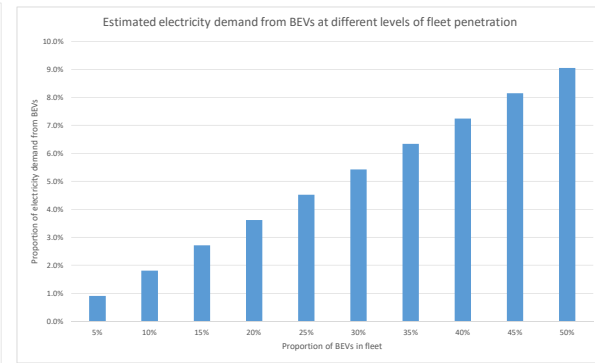
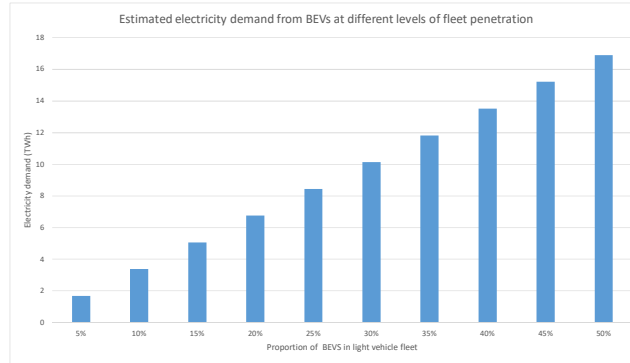
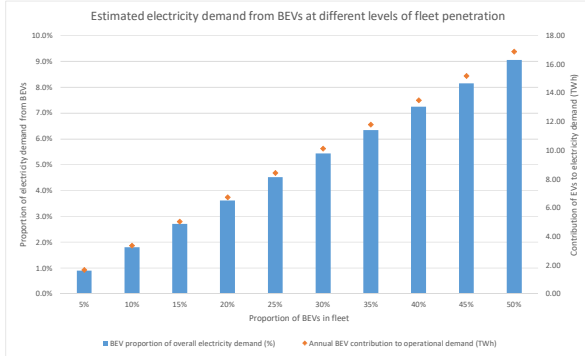
Annual operational electricity demand (e) 169900.5 AEMO ESOO projection for 2030, but excluding their EV forecast to avoid double counting.

Fuel Type	Pure Electric	Average of Electricity Efficiency (Wh/km)								
Row Labels	Column Labels	2009	2010	2012	2014	2015	2016	2017	2018	2019
BMW										
i01										
i3					129					
i3 BEV 94 Ah									136	
i3 BEV 94Ah							131			
i3s BEV 94 Ah									143	
i3										
i3 BEV 120Ah										137
i3s BEV 120Ah										145
Hyundai										
Ioniq										
EV								115		117
Kona										
EV										131
Jaguar										
I-Pace										
400EV									230	
Mercedes-Benz										
EQC Class										
EQC400 4MATIC										212.3333333
Mitsubishi										
i car										
i MIEV		132								
i-MIEV				135						
Nissan										
Leaf										
(blank)				173						
ZE1 LEAF										
(blank)										171
Renault										
Kangoo										
ZE					155					
ZOE										
15/16 Wheels"									133	
17 wheels"									150	
Tesla										
Model 3										
Long range base (E3DB)										209
Long Range Dual Motor (E3DB)										209
Performance (E3DP)										207
Standard Range Plus (E1RB)										188
Model S										
100 kWh Performance Dual Motor									200	
100DS dual base motor										189
60 kWh					181				186	
60 kWh Dual Motor									186	
60RP										185
70 kWh						185			185	
70 kWh Dual Motor						217			186	
70RP										185
75 kWh									185	
75 kWh Dual Motor									186	
75RP										185
85 kWh					193.1428571					
85 kWh Dual Motor									208.2	
85 kWh Performance					181					
85 kWh Performance Dual Motor									219.6	
90 kWh									198	
90 kWh Dual Motor									206	189
90 kWh Performance Dual Motor									215	200
SA1EB Standard Range										173
SA3EB Long Range										163
SA3EP Performance										170
Model X										
100 kWh Performance Dual Motor									226	
100XB dual base motor										208
60 kWh Dual Motor									208	
75 kWh Dual Motor									208	
90 kWh Dual Motor									208	
90 kWh Performance Dual Motor									217	
Long Range (XA3EB)										198
XA1EB Standard Range										199
XA3EP Performance										208
Roadster										
(blank)		231								

Average of models available in Australia in 2019 (excluding double up models) [Wh/km]

167.757576

Number of EVs in fleet (based on ABS data)	Proportion of fleet (%)	BEV proportion of overall electricity demand (%)	Annual BEV contribution to operational demand (GWh)	Forecast 2030 total operational demand inc EVs (GWh)
733962.3	5%	0.91%	1.69	186,569.19
1467924.6	10%	1.81%	3.38	186,570.88
2201886.9	15%	2.72%	5.07	186,572.57
2935849.2	20%	3.62%	6.76	186,574.26
3669811.5	25%	4.53%	8.44	186,575.94
4403773.8	30%	5.43%	10.13	186,577.63
5137736.1	35%	6.34%	11.82	186,579.32
5871698.4	40%	7.24%	13.51	186,581.01
6605660.7	45%	8.15%	15.20	186,582.70
7339623	50%	9.05%	16.89	186,584.39



Assumptions:

Consumption per car/year (GWh) 0.002300963 Based on GVG data in next sheet (which is in a wh/km format), multiplied by number of km below (ABS). Converted from a Wh/km unit to a GWh/km unit.

Total passenger vehicle fleet size: 14,679,246 Jan 31 2020 - ABS motor vehicle census

Average km/year for passenger vehicles 13716 ABS

Total annual operational demand for NEM and WEM (exc EVs) 186567.5 Sum of both NEM and WEM figures below.

Annual operational electricity demand (exc EVs) NEM (GWh): 169900.5 AEMO ESOC projection for "central scenario" for 2030, but excluding their EV forecast to avoid double counting. From AEMO forecasting portal: <http://forecasting.aemo.com.au/>. Total consumption forecast is 172,162.87, minus forecasted EV share of 2262.37, giving a total 169,900.5 GWh

Annual operational electricity demand (exc EVs) WEM (GWh): 16667 We use 2029-2030 operational consumption is forecasted to be 17,029 GWh [Table 42] minus the EV's share of 362 GWh (2.12% share, Figure 29) to give 16,667 GWh.

Fuel Type	Pure Electric	Average of Electricity Efficiency (Wh/km)								
Row Labels	Column Labels	2009	2010	2012	2014	2015	2016	2017	2018	2019
BMW										
i01										
i3					129					136
i3 BEV 94 Ah										
i3 BEV 94Ah							131			
i3s BEV 94 Ah										143
i3										
i3 BEV 120Ah										137
i3s BEV 120Ah										145
Hyundai										
Ioniq										
EV									115	117
Kona										
EV										131
Jaguar										
I-Pace										
400EV									230	
Mercedes-Benz										
EQC Class										
EQC400 4MATIC									212.3333333	
Mitsubishi										
i car										
I MIEV		132								
I-MIEV				135						
Nissan										
Leaf										
(blank)				173						
ZE1 LEAF										171
(blank)										
Renault										
Kangoo										
ZE					155					
ZOE										
15/16 Wheels*										133
17 wheels*										150
Tesla										
Model 3										
Long range base (E3DB)										209
Long Range Dual Motor (E3DB)										209
Performance (E3DP)										207
Standard Range Plus (E1RB)										188
Model S										
100 kWh Performance Dual Motor							200			
100DB dual base motor										189
60 kWh					181		186			
60 kWh Dual Motor							186			
60RP										185
70 kWh						185	185			
70 kWh Dual Motor						217	186			
70RP										185
75 kWh										185
75 kWh Dual Motor							186			
75RP										185
85 kWh				193.1428571						
85 kWh Dual Motor					208.2					
85 kWh Performance				181						
85 kWh Performance Dual Motor						219.6				
90 kWh						198				
90 kWh Dual Motor						206	189			
90 kWh Performance Dual Motor						215	200			
SA1EB Standard Range										173
SA3EB Long Range										163
SA3EP Performance										170
Model X										
100 kWh Performance Dual Motor							226			
100XB dual base motor									208	
60 kWh Dual Motor									208	
75 kWh Dual Motor									208	
90 kWh Dual Motor									208	
90 kWh Performance Dual Motor							217			
Long Range (XA3EB)										198
XA1EB Standard Range										199
XA3EP Performance										208
Roadster										
(blank)			231							

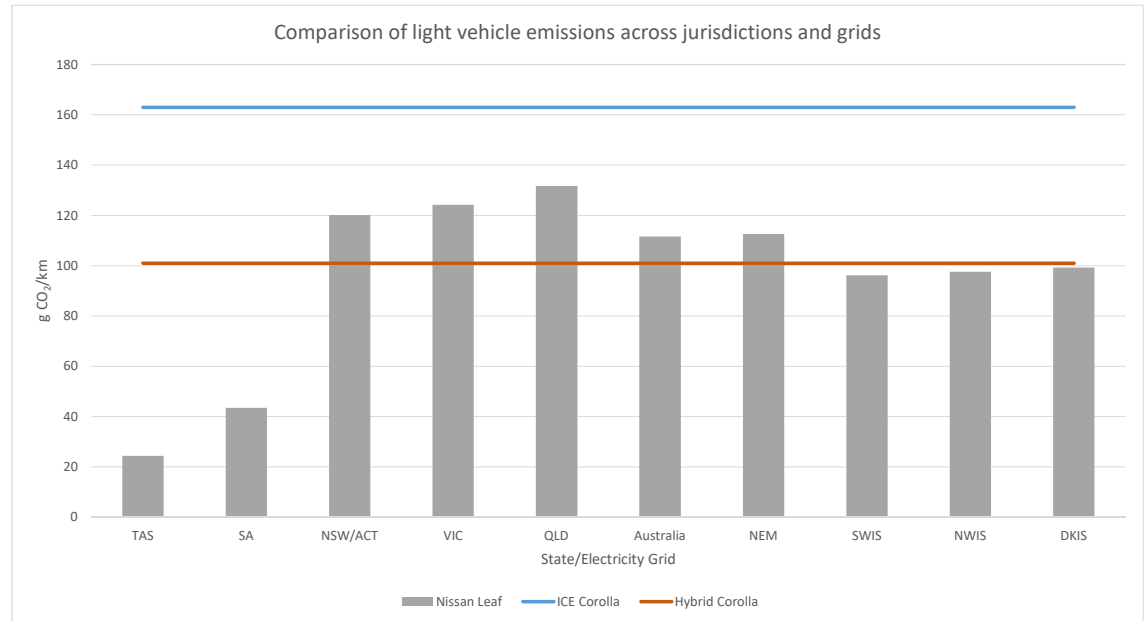
Average of models available in Australia in 2019 (excluding double up models) [Wh/km] 167.757576

Emissions intensity of electricity grid (g/Wh)						
Location	2021	2022	2023	2024	2025	Average 2021-2025
TAS	0.19	0.15	0.12	0.12	0.13	0.142
SA	0.32	0.25	0.22	0.21	0.27	0.254
SWIS	0.6	0.57	0.56	0.55	0.53	0.562
NWIS	0.61	0.6	0.56	0.54	0.54	0.57
DKIS	0.64	0.59	0.57	0.56	0.54	0.58
Australia, all grid connected	0.74	0.68	0.63	0.61	0.6	0.652
NEM	0.75	0.69	0.63	0.61	0.61	0.658
NSW/ACT	0.8	0.74	0.69	0.66	0.62	0.702
VIC	0.85	0.75	0.68	0.66	0.69	0.726
QLD	0.85	0.82	0.75	0.72	0.71	0.77

Indirect factors for intensity of the electricity grids, consistent with the 2020 projections, from Appendix C of the emissions projections report: <https://www.industry.gov.au/publications/australias-emissions-projections-2020>

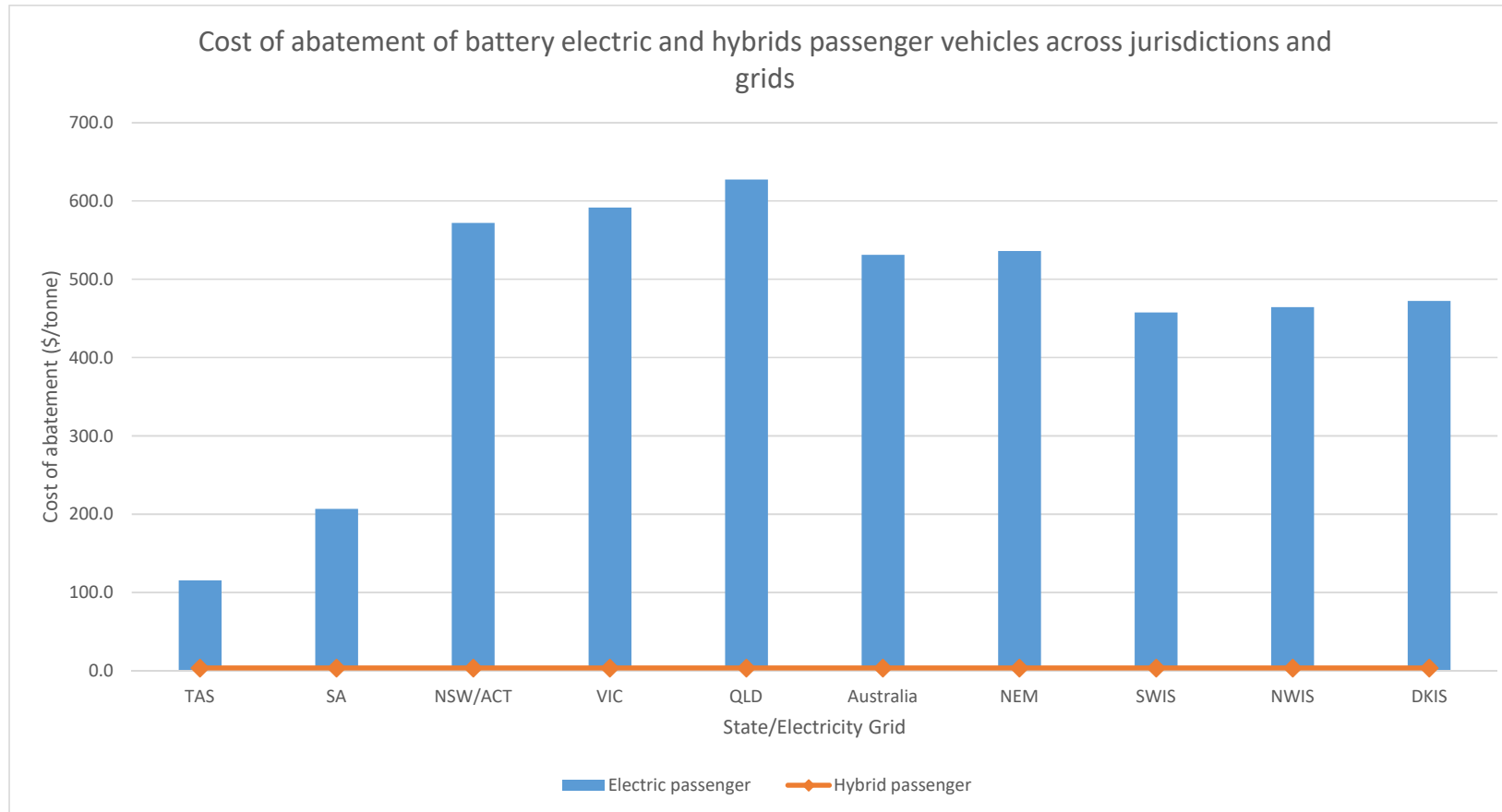
Note: g/Wh equals kg/kWh equals tonnes per MWh.

		Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
g/km or Wh/km	Vehicle type	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
163	ICE Corolla	163	163	163	163	163	163	163	163	163	163	
101	Hybrid Corolla	101	101	101	101	101	101	101	101	101	101	
171	Nissan Leaf	24	43	120	124	132	111	113	96	97	99	



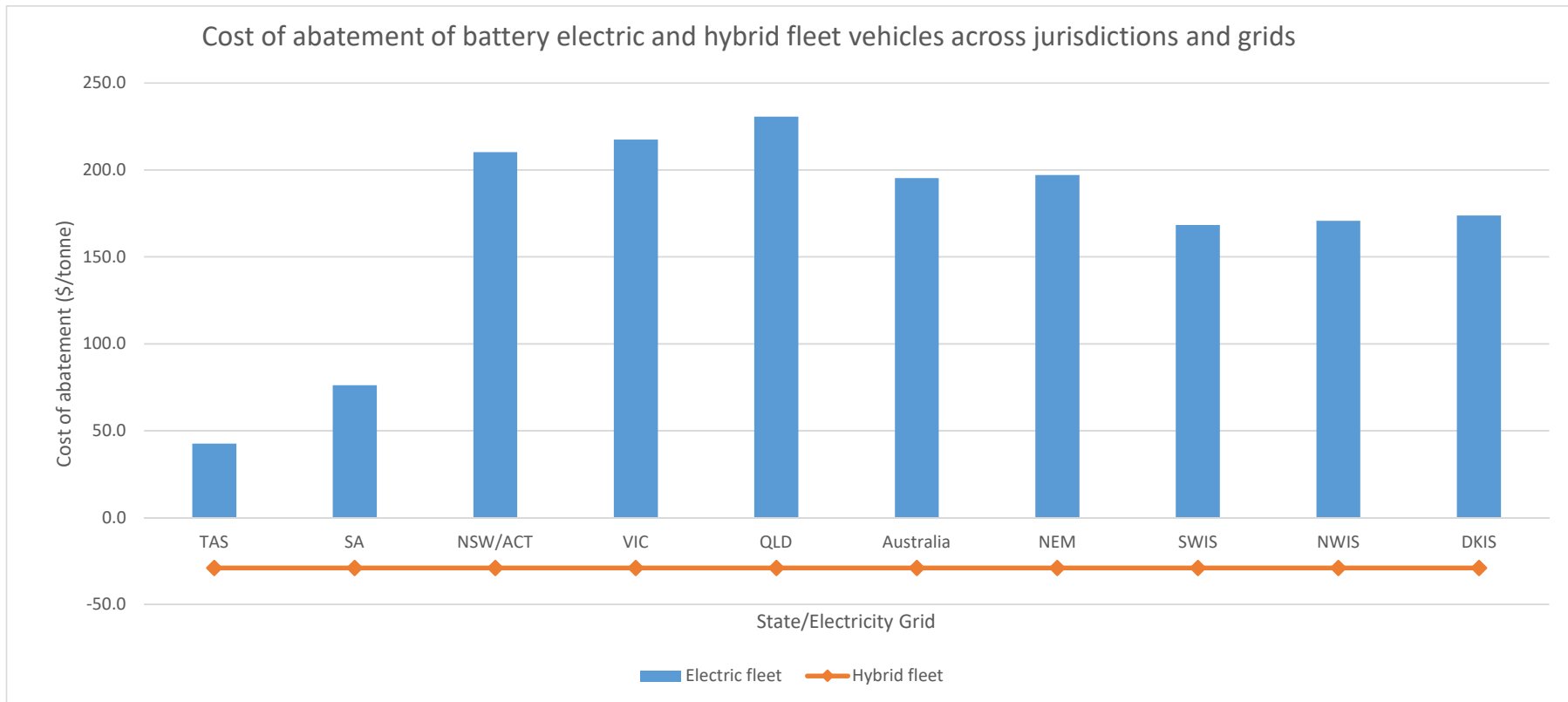
Cost of abatement comparison by state/grid

Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Electric passenger	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7
Hybrid passenger	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8



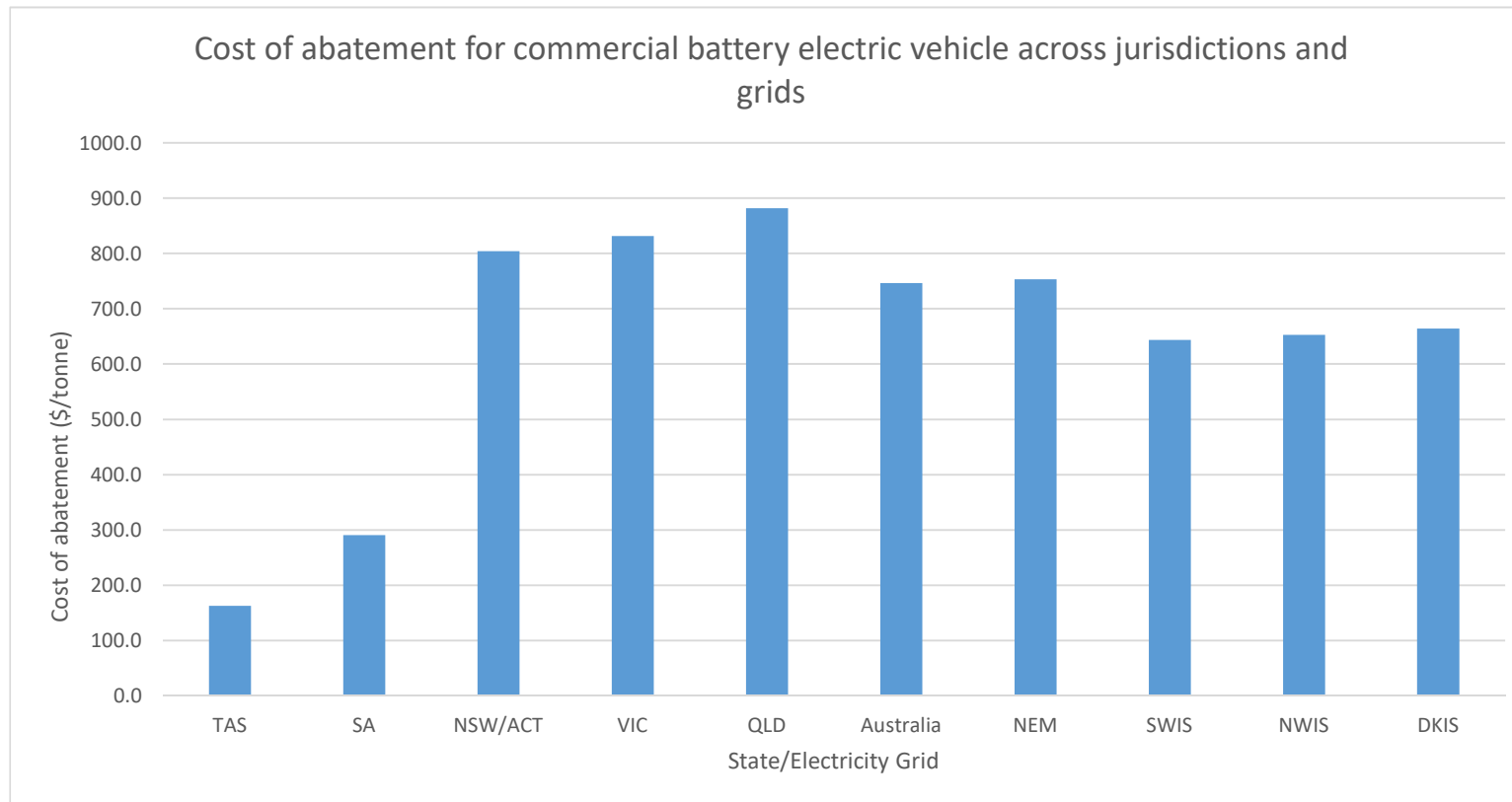
**Average
2021-2025
(g/Wh)**

	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Electric passenger	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7
Hybrid passenger	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8



Average
2021-
2025
(g/Wh)

State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial Electric pas	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Hybrid pas	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet Electric fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8

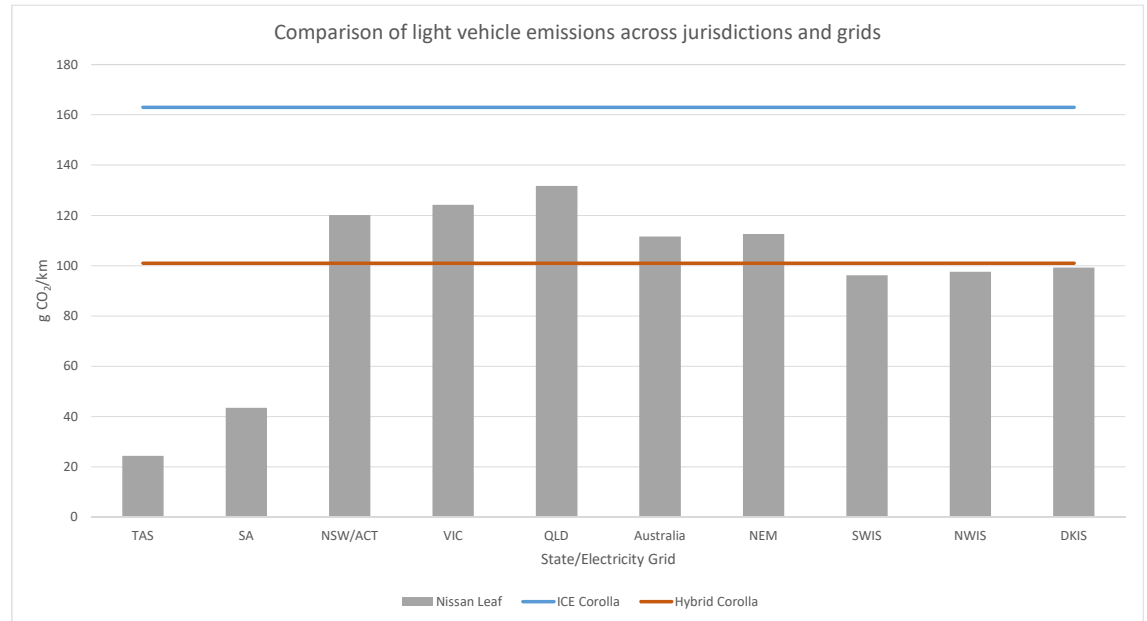


Emissions intensity of electricity grid (g/Wh)						
Location	2021	2022	2023	2024	2025	Average 2021-2025
TAS	0.19	0.15	0.12	0.12	0.13	0.142
SA	0.32	0.25	0.22	0.21	0.27	0.254
SWIS	0.6	0.57	0.56	0.55	0.53	0.562
NWIS	0.61	0.6	0.56	0.54	0.54	0.57
DKIS	0.64	0.59	0.57	0.56	0.54	0.58
Australia, all grid connected	0.74	0.68	0.63	0.61	0.6	0.652
NEM	0.75	0.69	0.63	0.61	0.61	0.658
NSW/ACT	0.8	0.74	0.69	0.66	0.62	0.702
VIC	0.85	0.75	0.68	0.66	0.69	0.726
QLD	0.85	0.82	0.75	0.72	0.71	0.77

Indirect factors for intensity of the electricity grids, consistent with the 2020 projections, from Appendix C of the emissions projections report: <https://www.industry.gov.au/publications/australias-emissions-projections-2020>

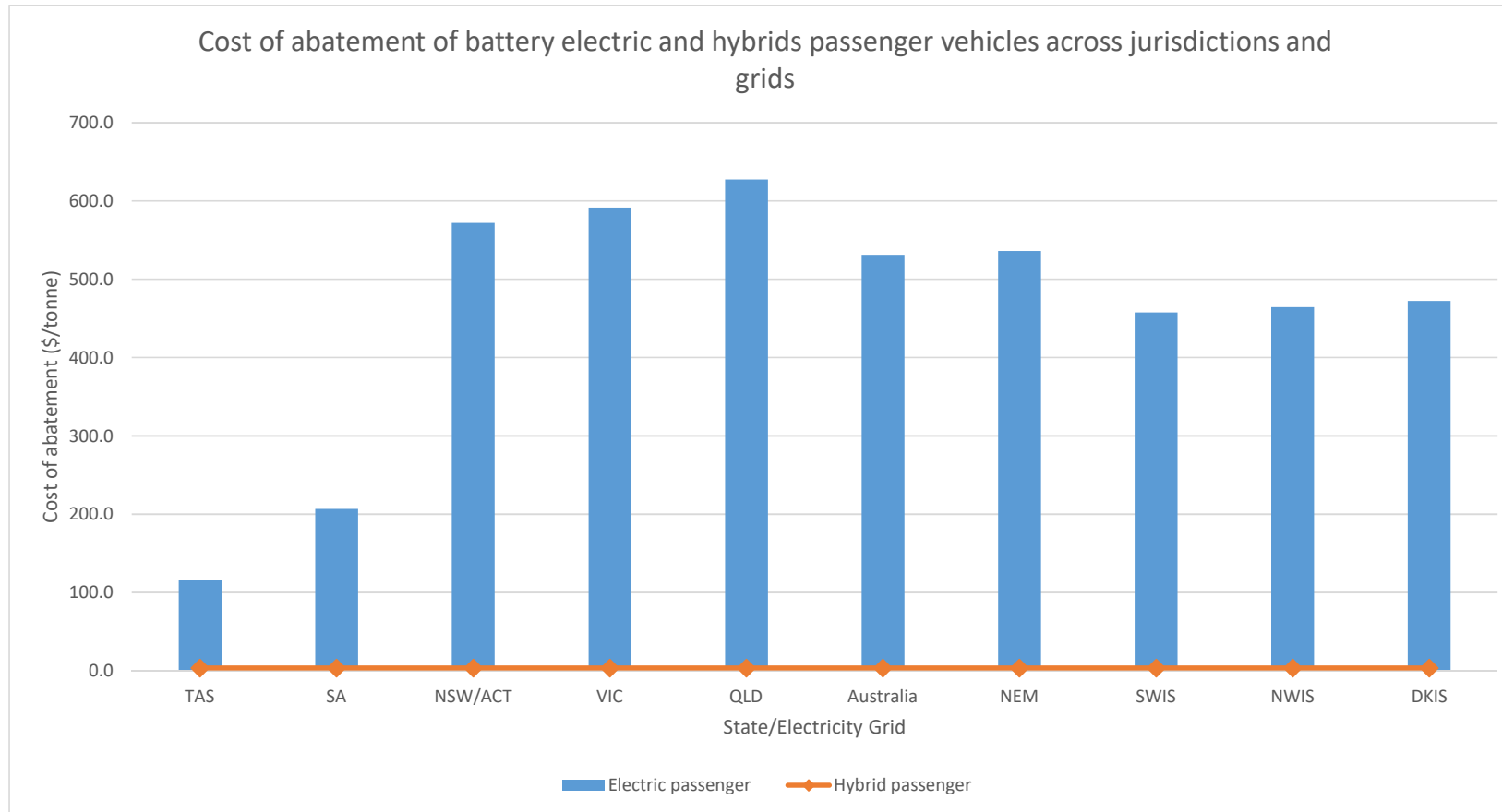
Note: g/Wh equals kg/kWh equals tonnes per MWh.

		Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
g/km or Wh/km	Vehicle type	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
163	ICE Corolla	163	163	163	163	163	163	163	163	163	163	
101	Hybrid Corolla	101	101	101	101	101	101	101	101	101	101	
171	Nissan Leaf	24	43	120	124	132	111	113	96	97	99	

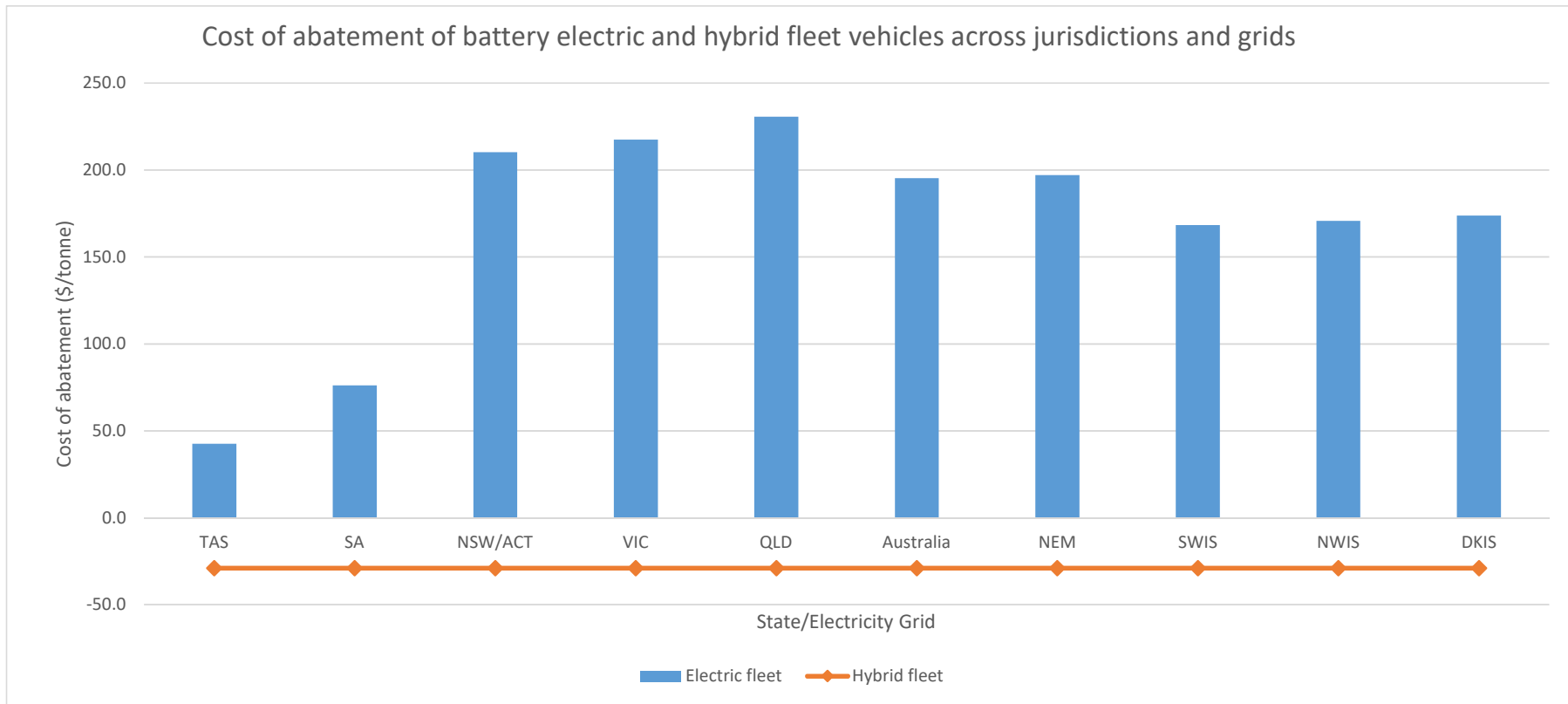


Cost of abatement comparison by state/grid

Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Electric passenger	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7
Hybrid passenger	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8

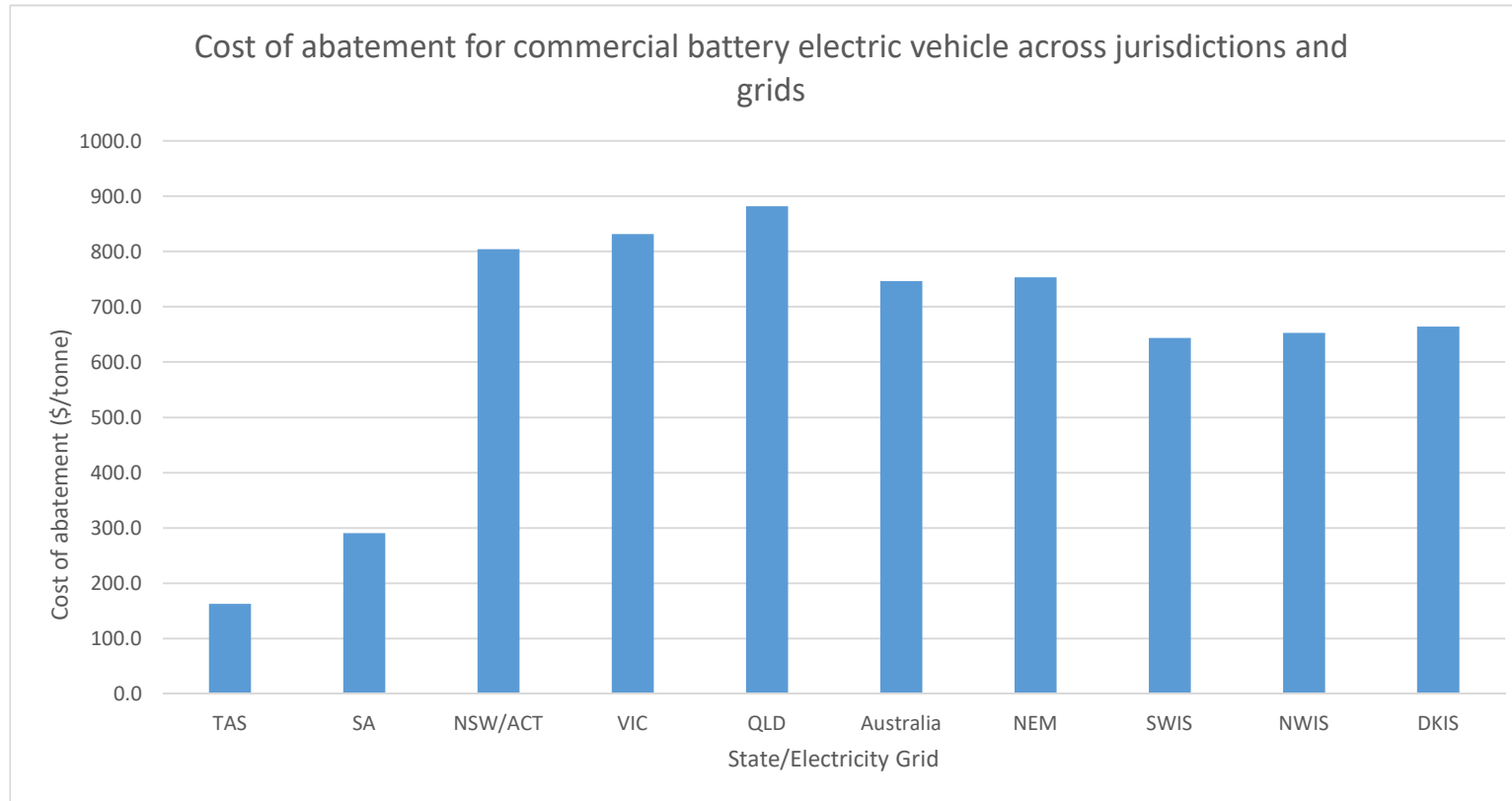


Average 2021-2025 (g/Wh)		0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2	
Electric passenger	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7	
Hybrid passenger	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
Hybrid fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8	



**Average
2021-
2025
(g/Wh)**

State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Electric pas	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7
Hybrid pas	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid flee	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fle	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8

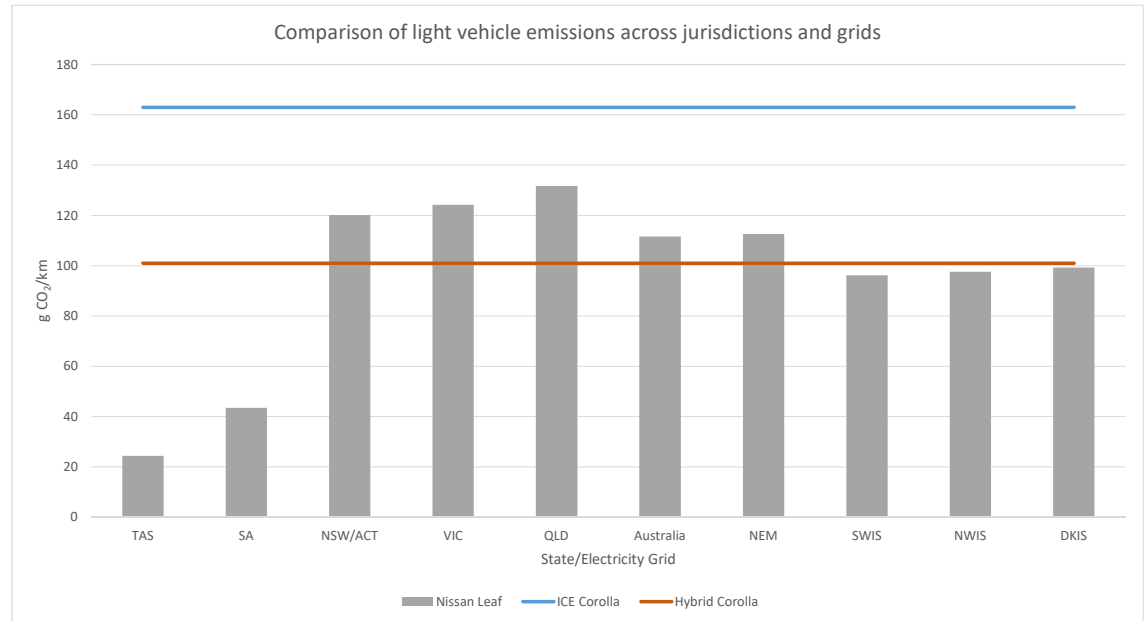


Emissions intensity of electricity grid (g/Wh)						
Location	2021	2022	2023	2024	2025	Average 2021-2025
TAS	0.19	0.15	0.12	0.12	0.13	0.142
SA	0.32	0.25	0.22	0.21	0.27	0.254
SWIS	0.6	0.57	0.56	0.55	0.53	0.562
NWIS	0.61	0.6	0.56	0.54	0.54	0.57
DKIS	0.64	0.59	0.57	0.56	0.54	0.58
Australia, all grid connected	0.74	0.68	0.63	0.61	0.6	0.652
NEM	0.75	0.69	0.63	0.61	0.61	0.658
NSW/ACT	0.8	0.74	0.69	0.66	0.62	0.702
VIC	0.85	0.75	0.68	0.66	0.69	0.726
QLD	0.85	0.82	0.75	0.72	0.71	0.77

Indirect factors for intensity of the electricity grids, consistent with the 2020 projections, from Appendix C of the emissions projections report: <https://www.industry.gov.au/publications/australias-emissions-projections-2020>

Note: g/Wh equals kg/kWh equals tonnes per MWh.

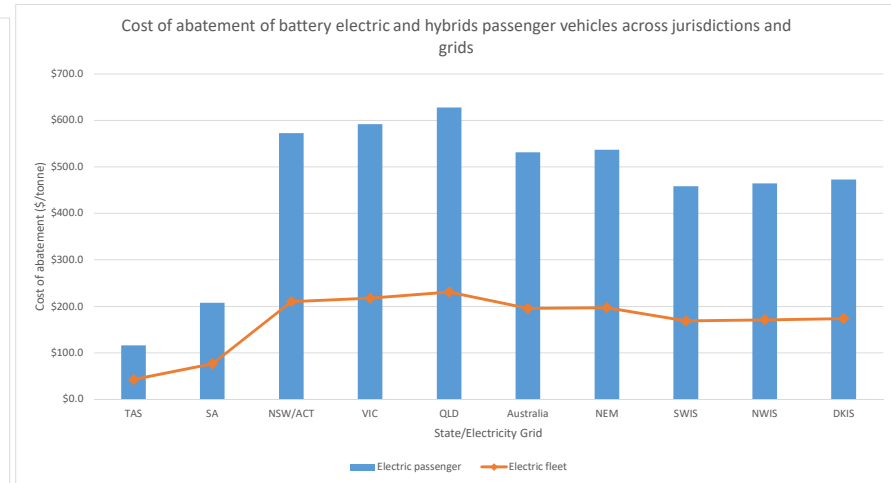
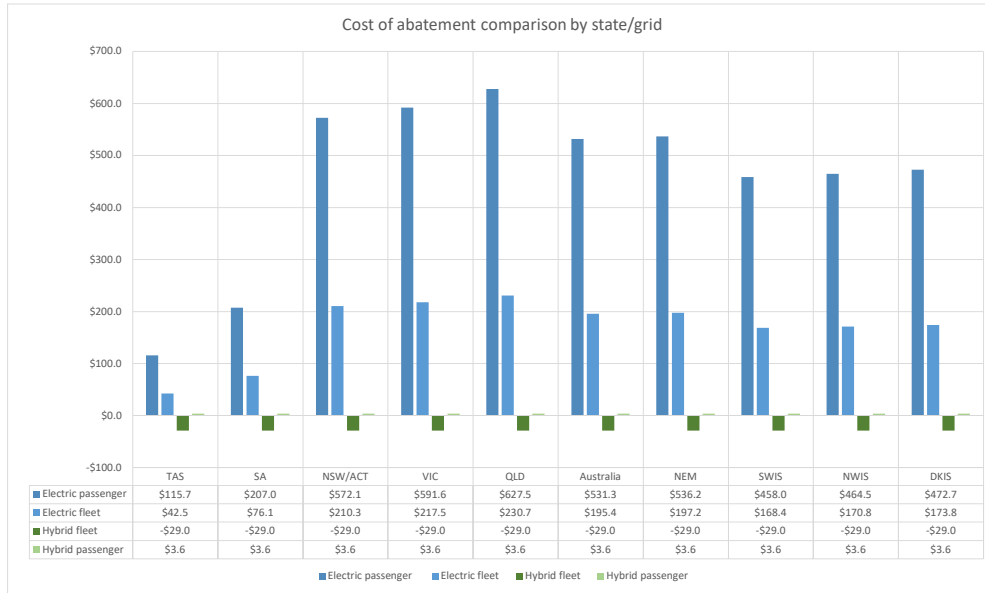
		Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
g/km or Wh/km	Vehicle type	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
163	ICE Corolla	163	163	163	163	163	163	163	163	163	163	
101	Hybrid Corolla	101	101	101	101	101	101	101	101	101	101	
171	Nissan Leaf	24	43	120	124	132	111	113	96	97	99	



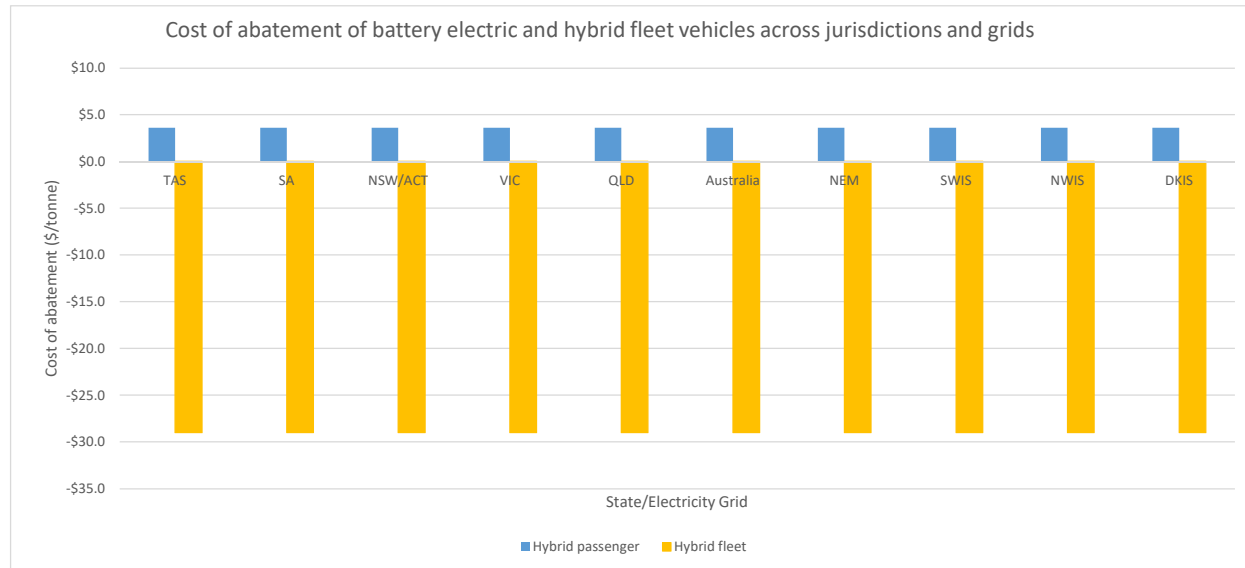
Cost of abatement comparison by state/grid

		Average 2021-2025 (g/Wh)									
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
Commercial	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58	
Electric passenger	\$115.7	\$207.0	\$572.1	\$591.6	\$627.5	\$531.3	\$536.2	\$458.0	\$464.5	\$472.7	
Electric fleet	\$42.5	\$76.1	\$210.3	\$217.5	\$230.7	\$195.4	\$197.2	\$168.4	\$170.8	\$173.8	
Hybrid fleet	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	
Hybrid passenger	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	

Hybrid pas 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6

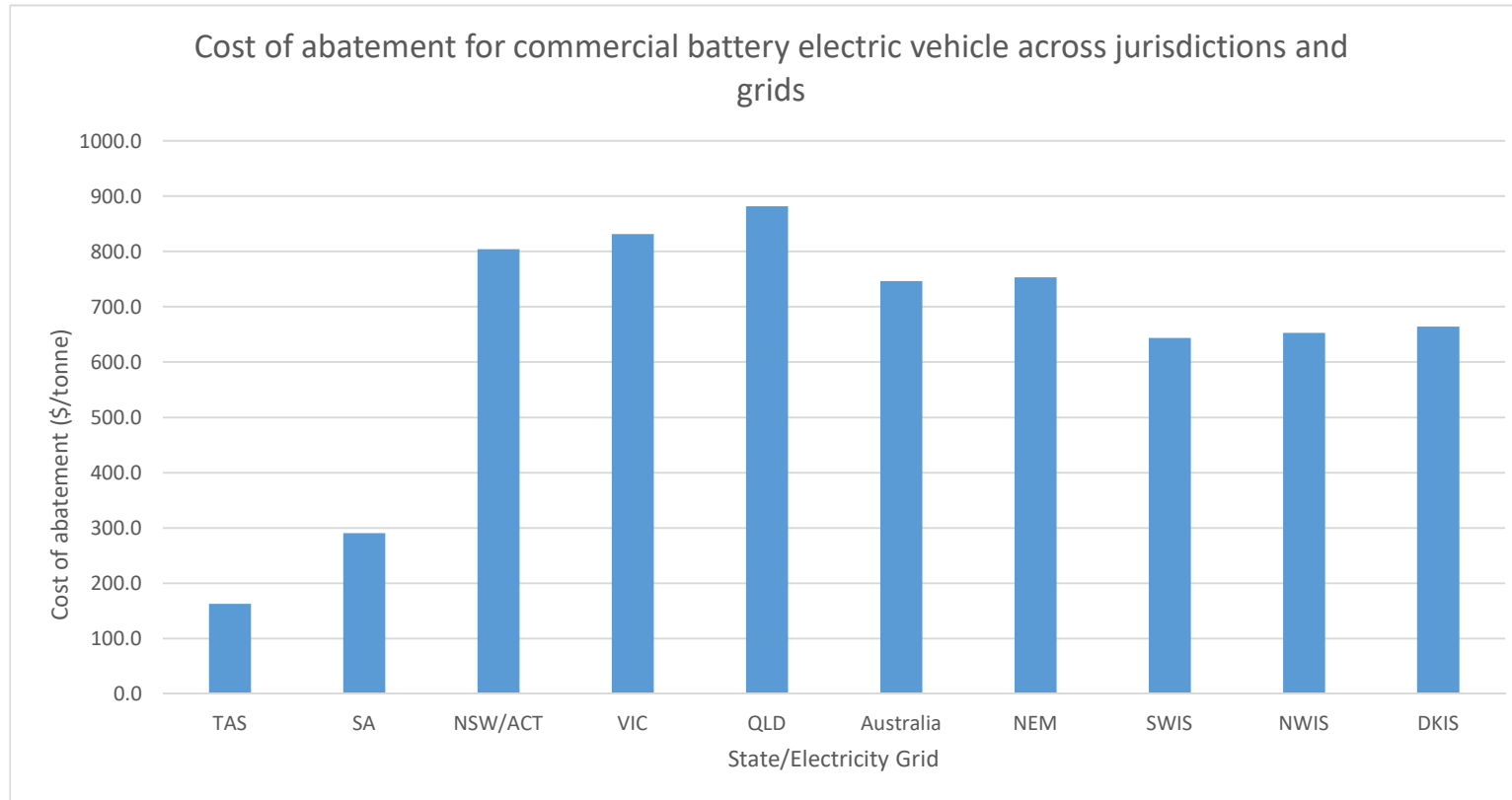


Average 2021-2025 (g/Wh)		0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
Commercial	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2	
Electric passenger	115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7	
Hybrid passenger	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	
Hybrid fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8	



**Average
2021-
2025
(g/Wh)**

State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial Electric pas	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Hybrid pas	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet Electric fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8

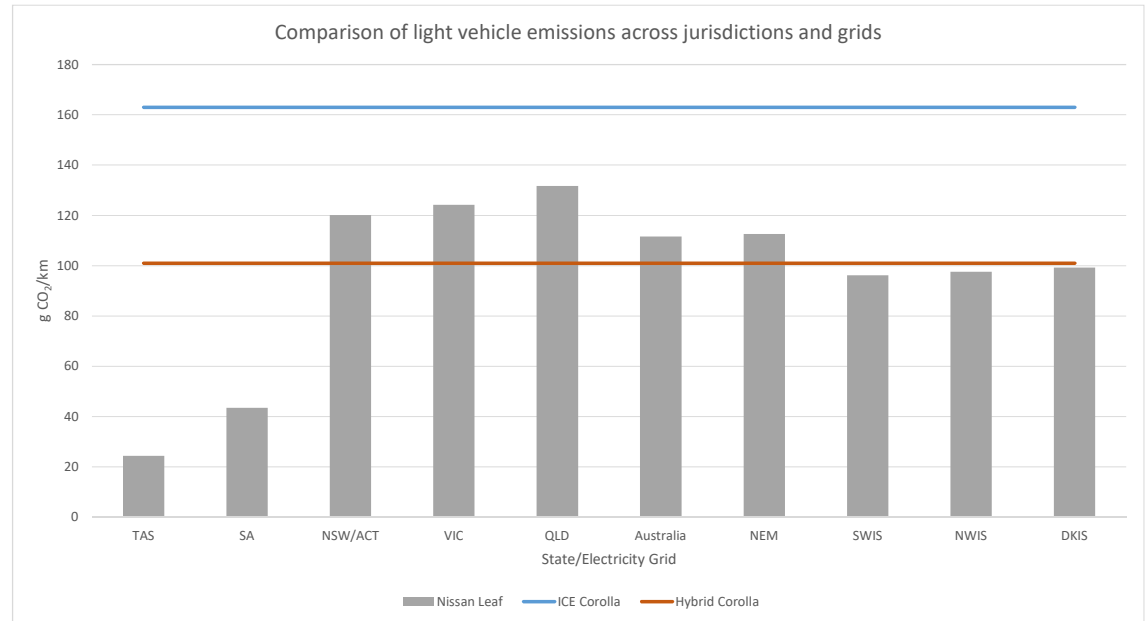


Emissions intensity of electricity grid (g/Wh)						
Location	2021	2022	2023	2024	2025	Average 2021-2025
TAS	0.19	0.15	0.12	0.12	0.13	0.142
SA	0.32	0.25	0.22	0.21	0.27	0.254
SWIS	0.6	0.57	0.56	0.55	0.53	0.562
NWIS	0.61	0.6	0.56	0.54	0.54	0.57
DKIS	0.64	0.59	0.57	0.56	0.54	0.58
Australia, all grid connected	0.74	0.68	0.63	0.61	0.6	0.652
NEM	0.75	0.69	0.63	0.61	0.61	0.658
NSW/ACT	0.8	0.74	0.69	0.66	0.62	0.702
VIC	0.85	0.75	0.68	0.66	0.69	0.726
QLD	0.85	0.82	0.75	0.72	0.71	0.77

Indirect factors for intensity of the electricity grids, consistent with the 2020 projections, from Appendix C of the emissions projections report: <https://www.industry.gov.au/publications/australias-emissions-projections-2020>

Note: g/Wh equals kg/kWh equals tonnes per MWh.

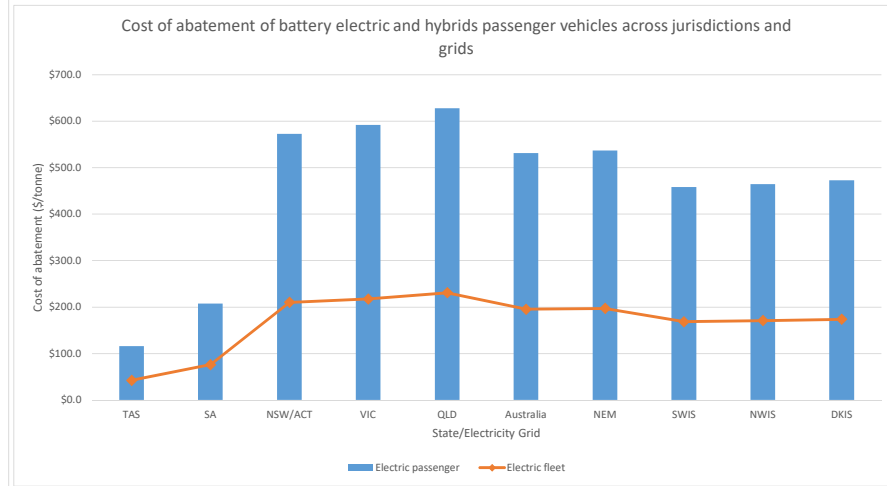
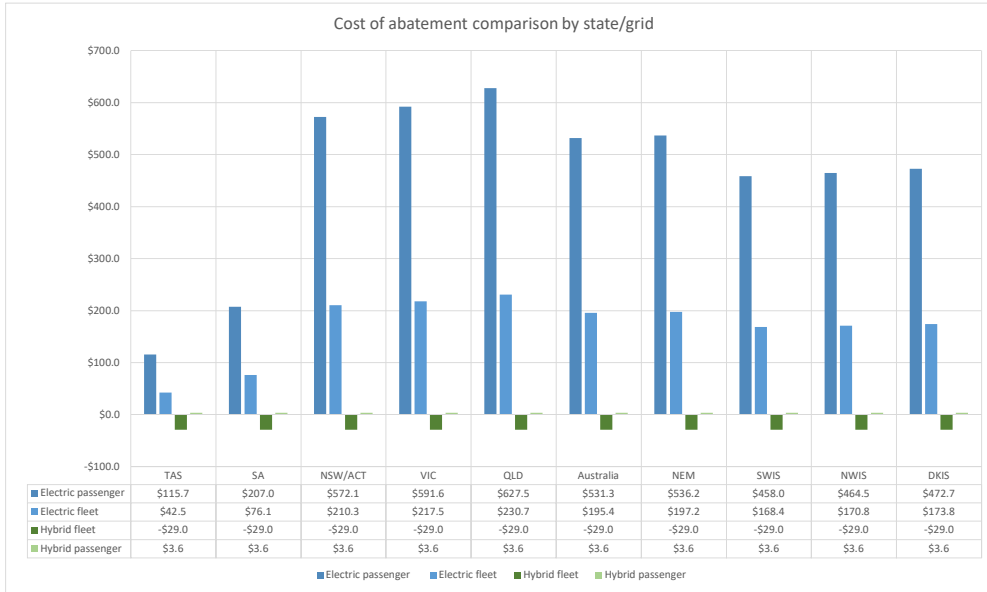
		Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
g/km or Wh/km	Vehicle type	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
163	ICE Corolla	163	163	163	163	163	163	163	163	163	163	
101	Hybrid Corolla	101	101	101	101	101	101	101	101	101	101	
171	Nissan Leaf	24	43	120	124	132	111	113	96	97	99	



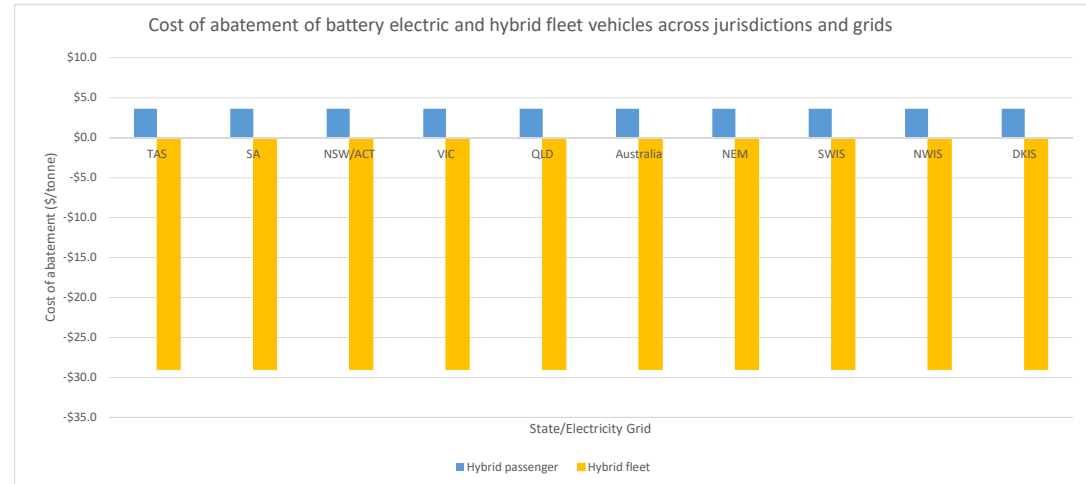
Cost of abatement comparison by state/grid

		Average 2021-2025 (g/Wh)									
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS	
Commercial	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58	
Electric passenger	\$115.7	\$207.0	\$572.1	\$591.6	\$627.5	\$531.3	\$536.2	\$458.0	\$464.5	\$472.7	
Electric fleet	\$42.5	\$76.1	\$210.3	\$217.5	\$230.7	\$195.4	\$197.2	\$168.4	\$170.8	\$173.8	
Hybrid fleet	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	-\$29.0	
Hybrid passenger	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	\$3.6	

Hybrid pas 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6 3.6

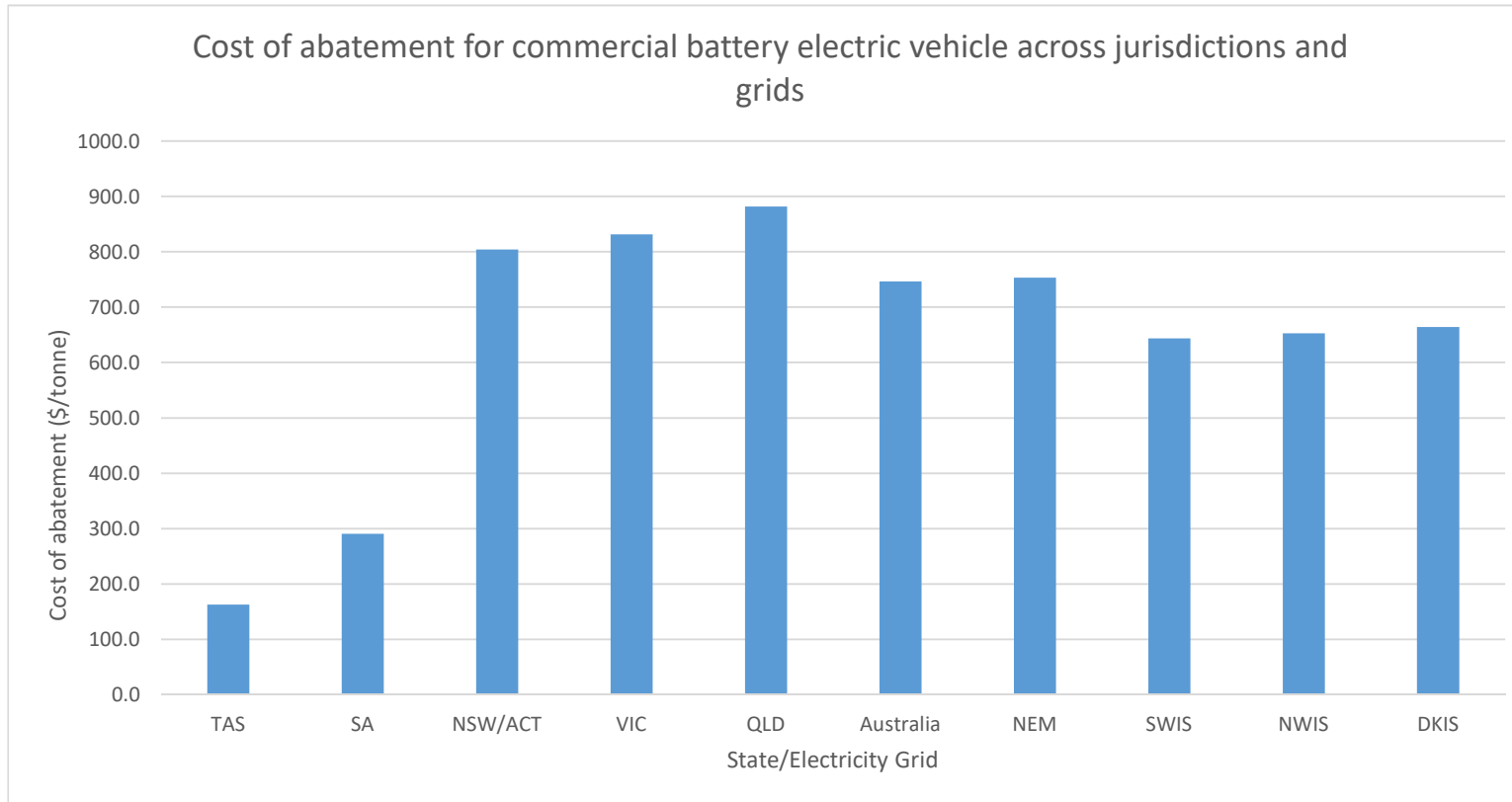


Average 2021-2025 (g/Wh)		0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State		TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial		162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Electric passenger		115.7	207.0	572.1	591.6	627.5	531.3	536.2	458.0	464.5	472.7
Hybrid passenger		3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet		-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet		42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8



Average
2021-
2025
(g/Wh)

State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Commercial Electric pas	162.6	290.9	804.0	831.5	881.8	746.7	753.6	643.6	652.8	664.2
Hybrid pas	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6	3.6
Hybrid fleet Electric fleet	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0	-29.0
Electric fleet	42.5	76.1	210.3	217.5	230.7	195.4	197.2	168.4	170.8	173.8



	TOC ICE vehicle cost	Cost of new vehicle	Additional cost for new vehicle tech	TCO savings			Remaining Gap
				Fuel savings	Maintenance savings	Carbon credit benefit	
Small vehicle – Nissan Leaf (BEV) vs Toyota Corolla (ICE)	0.655	0.987	0.332	0.035	-0.008	0.001	0.304
Small private vehicle Toyota Corolla (ICE) vs Toyota corolla (Hybrid)	0.669	0.671	0.002	0.026	0.000	0.001	-0.025
Small fleet vehicle – Nissan Leaf (BEV) vs Toyota Corolla (ICE)	0.329	0.451	0.122	0.035	-0.008	0.001	0.095
Small fleet vehicle – Toyota corolla (Hybrid) vs Toyota Corolla (ICE)	0.241	0.223	-0.018	0.026	0.000	0.001	-0.045
Small light commercial vehicle – Renault Kangoo (BEV) vs Renault Kangoo ICE	0.730	1.197	0.467	0.046	0.030	0.001	0.390

Small ICE v EV	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance	kms per yr
TCO - Leaf	0.000	0.875	0.051	0.039	0.021	13716
Fuel savings	0.952	0.035				
Maintenance savings	0.960	-0.008				
Carbon credit benefit	0.959	0.001				
TCO - Corolla	0.000	0.528	0.086	0.027	0.013	

ICE v hybrid (private)	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance	kms per yr
TCO - Corolla hybrid	0.000	0.557	0.060	0.041	0.013	13700
Fuel savings	0.026	0.026				
Maintenance savings	0.000	0.000				
Carbon credit benefit	0.001	0.001				
TCO - Corolla	0.000	0.529	0.086	0.041	0.013	

Small fleet ICE v EV	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance	kms per yr
TCO - Leaf	0.000	0.363	0.051	0.016	0.021	51300
Fuel savings	0.417	0.035				
Maintenance savings	0.425	-0.008				
Carbon credit benefit	0.424	0.001				
Forecast up-front price reductions to 2025	0.280	0.144				
TCO - Corolla	0.000	0.219	0.086	0.011	0.013	

ICE v hybrid	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance	kms per yr
TCO - Corolla hybrid	0.000	0.149	0.060	0.011	0.004	51300
Fuel savings	0.197	0.026				
Maintenance savings	0.197	0.000				
Carbon credit benefit	0.196	0.001				
TCO - Corolla	0.000	0.141	0.086	0.011	0.004	

Commercial	Series 1 (base)	Finance + depreciation cost	Fuel costs	Registration	Maintenance	kms per yr
TCO - Kangoo EV	0.000	1.089	0.047	0.047	0.014	17100
Fuel savings	1.150	0.046				
Maintenance savings	1.121	0.030				
Carbon credit benefit	1.120	0.001				
TCO - Kangoo petrol	0.000	0.561	0.093	0.033	0.044	

	ICE vehicle finance	Fuel difference	Maintenance reduction	ERF	Gap	Small EV vehicle finance
	0.529051095	0.02574		0	0.000992	0.557027737
	ICE rego					EV rego
	0.040656934					0.040656934
total vehicle	0.569708029					0.597684672
Reductions	ICE	EV			k/year	
Fuel costs		0.0858	0.06006		13700	
Fuel difference for EV			0.02574			
ERF reduction			0.000992			
Maintenance costs	0.013138686		0.013138686		0.002236642	
Maintenance reduction			0		30.642 TCO gap	
25% reduction in EV finance to 2025			0		8.494 abatement	
					3.607 \$/t	
TCO sum		0.6686	0.6709		0.0022 TCO difference	
MAIN DATA FIELDS - INSERT STUFF HERE	ICE	Hybrid				
Financing and depreciation costs		0.5291	0.5570		(Note: depreciation costs not in for hybrid yet)	
Rego costs		0.0407	0.0407			
Fuel cost/km		0.0858	0.0601			
ERF reduction/km			0.0010		Albert - do we want an ERF thing here?	
Maintenance/km		0.0131	0.0131			
Depreciation @12.5% p.a		0.291757801				
kms						1

GVG data	Toyota Corolla ICE	Toyota Corolla HYBRID	Difference
Release Year	2018	2018	
Fuel cost	1150	712	
Fuel consumption (comb) (L/100km)	6.00	4.20	
Fuel life cycle CO2 (g/km)	163.00	101.00	62.00
Annual tailpipe CO2 (tonnes)	2.23	1.38	0.85
10 yr lifetime abatement cost at \$16 a tonne	\$357	\$221	135.90
cost per km	0.002608	0.001616	0.000992

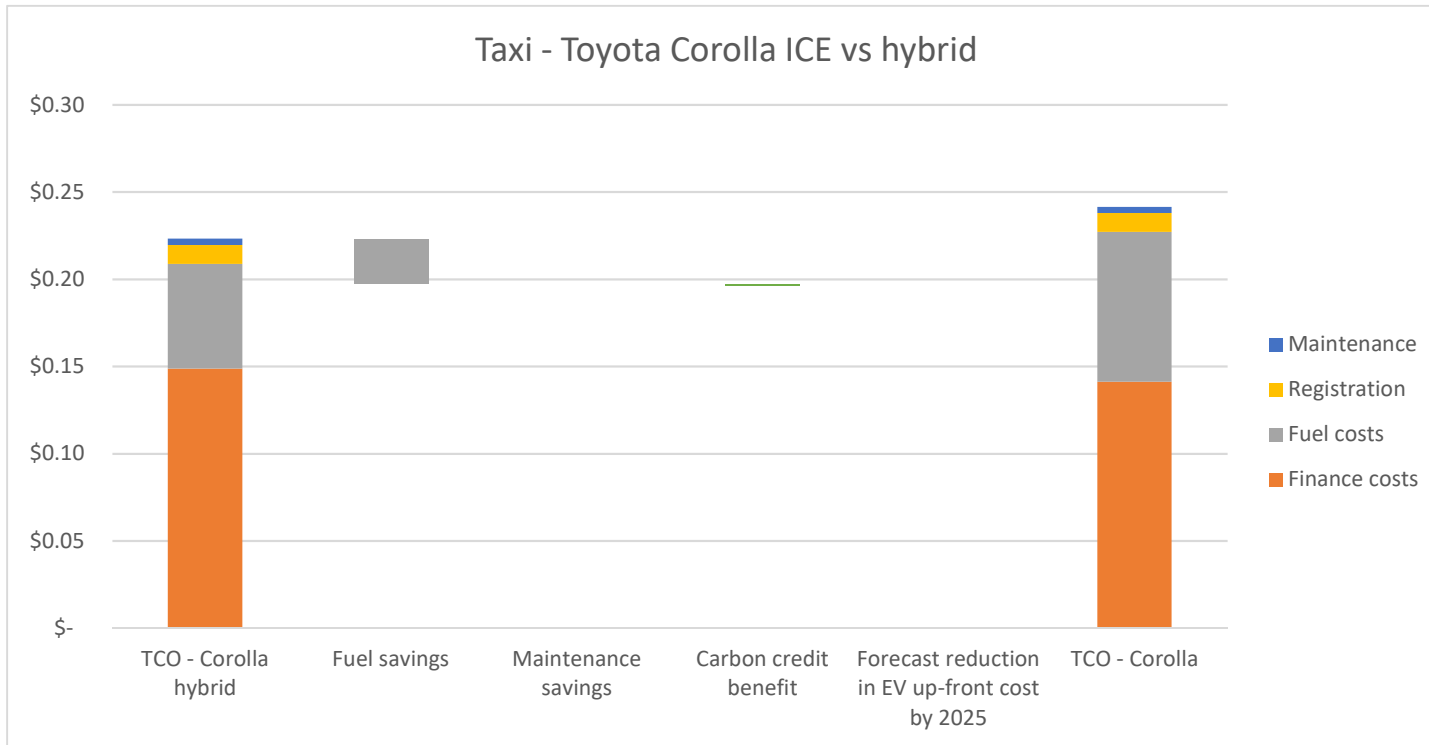
Cross check:

Grams of CO2 a year	2233100	1383700	
Cost per year to abate at \$16/tonne	35.7296	22.1392	
Cost per km	0.002608	0.001616	0.000992

TRUE TRUE

ie

	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance
TCO - Corolla hybrid	\$ -	\$ 0.15	\$ 0.06	\$ 0.01	\$ 0.00
Fuel savings	\$ 0.20	\$ 0.03			
Maintenance savings	\$ 0.20	\$ -			
Carbon credit benefit	\$ 0.20	\$ 0.00			
Forecast reduction in EV up-front cost k	\$ 0.20	\$ -			
TCO - Corolla	\$ -	\$ 0.14	\$ 0.09	\$ 0.01	\$ 0.00

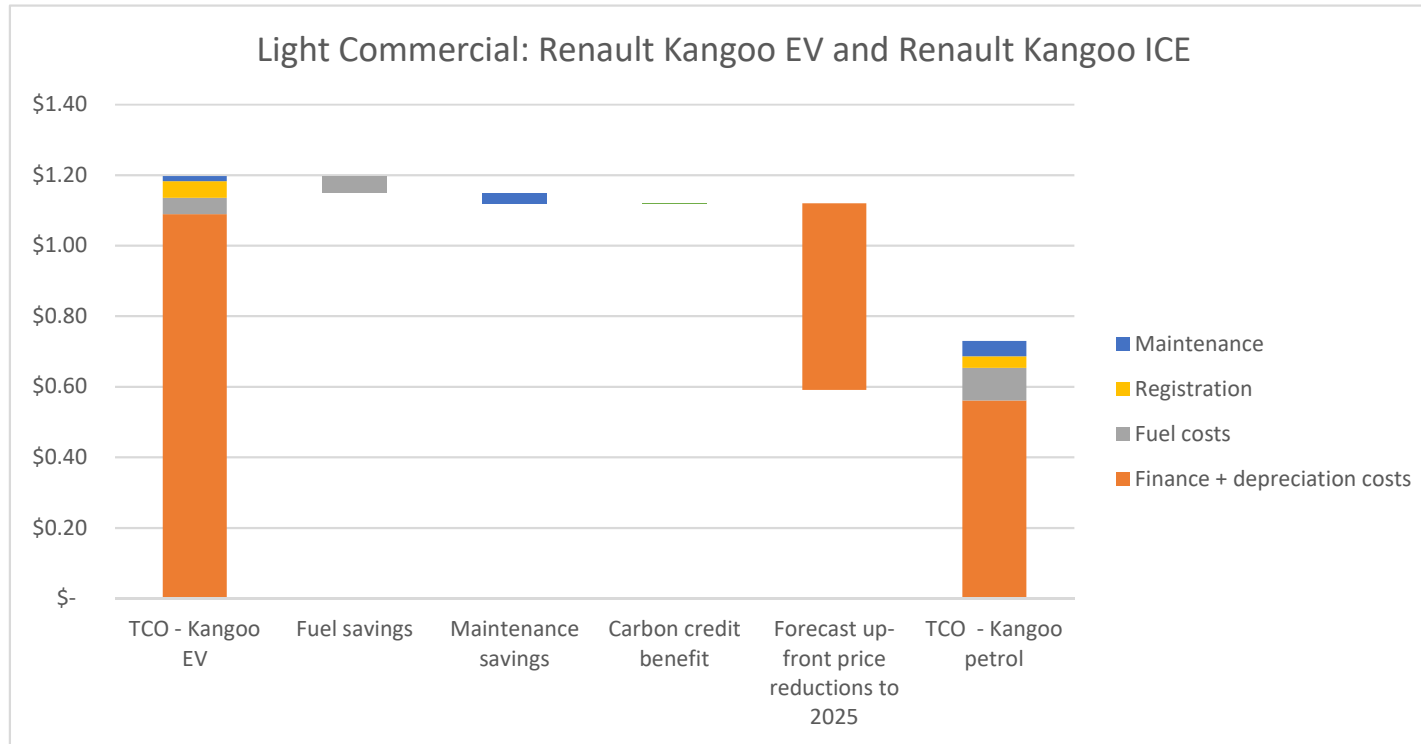


	ICE vehicle finance	Fuel difference	Maintenance reduction	ERF	Gap	Small EV vehicle finance
	0.560776023	0.04645		0.02966	0.001	1.089132164
	ICE rego					EV rego
	0.032573099					0.047017544
total vehicle	0.593349123					1.136149708
Reductions	ICE	EV		17100 k/year	17100	
Fuel costs		0.09295	0.0465			
Fuel difference for EV			0.04645			
ERF reduction			0.001			
Maintenance costs		0.04366	0.014		7980.409 TCO gap	
Maintenance reduction			0.02966		10.6875 abatement	
25% reduction in EV finance to 2025			0.52835614		746.7049357 \$/t	
TCO sum		0.7300	1.1966	0.4667 TCO difference		
MAIN DATA FIELDS - INSERT STUFF HERE	ICE	EV				
Financing and depreciation costs		0.5608	1.0891			
Rego costs		0.0326	0.0470			
Fuel cost/km		0.0930	0.0465			
ERF reduction/km			0.0010			
Maintenance/km		0.0437	0.0140			
Depreciation @12.5% p.a		0.253627151	0.48301254			

kms 1

Cost of abatement by state/grid										
Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Cost\$/tonne abatement	162.6259216	290.8942541	803.9675841	831.4536554	881.844786	746.7049357	753.5764535	643.6322	652.7942	664.2467

	Series 1 (base)	Finance + depreciati	Fuel costs	Registration	Maintenance
TCO - Kangoo EV	\$ -	\$ 1.09	\$ 0.05	\$ 0.05	\$ 0.01
Fuel savings	\$ 1.15	\$ 0.05			
Maintenance savings	\$ 1.12	\$ 0.03			
Carbon credit benefit	\$ 1.12	\$ 0.00			
Forecast up-front price reductions to 20	\$ 0.59	\$ 0.53			
TCO - Kangoo petrol	\$ -	\$ 0.56	\$ 0.09	\$ 0.03	\$ 0.04

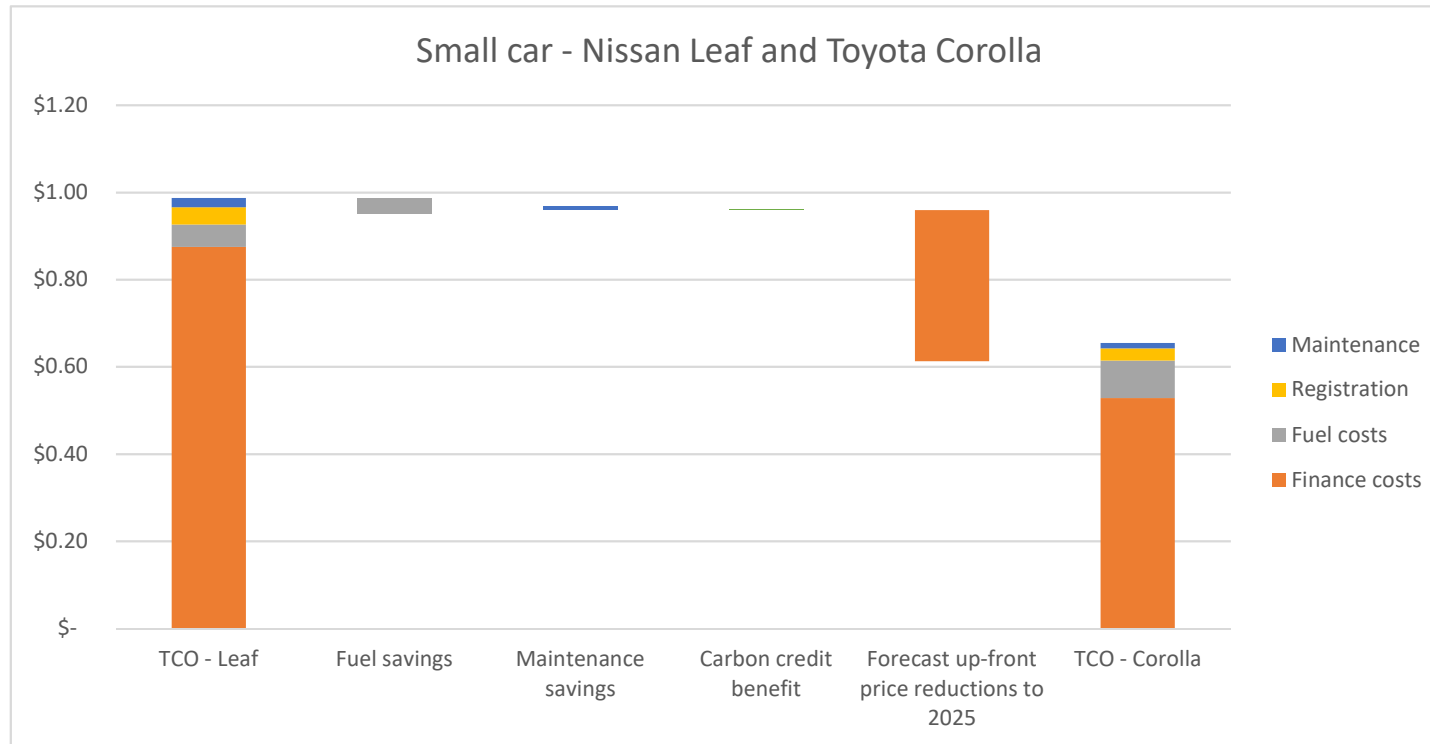


	ICE vehicle finance	Fuel difference	Maintenance reduction	ERF	Gap	Small EV vehicle finance
	0.528433946	0.0345	-0.00791047		0.001	0.875144357
total vehicle	ICE rego					EV rego
	0.027486					0.03944299
	0.555919946					0.914587347
Reductions	ICE	EV		13716 k/year	13716	
Fuel costs		0.0858	0.0513			
Fuel difference for EV			0.0345			
ERF reduction			0.001			
Maintenance costs	0.01312336	0.021033829		4554.780075 TCO gap		
Maintenance reduction		-0.00791047		8.5725 abatement		
25% reduction in EV finance to 2025		0.346710411		531.3245932 \$/t		
TCO sum		0.6548	0.9869	0.3321 TCO difference		
MAIN DATA FIELDS - INSERT STUFF HERE	ICE	EV				
Financing and depreciation costs		0.5284	0.8751 (Note: depreciation costs now removed)			0.142)
Rego costs		0.0275	0.0394			
Fuel cost/km		0.0858	0.0513			
ERF reduction/km			0.0010			
Maintenance/km		0.0131	0.0210			
Depreciation @12.5% p.a		0.291757801	0.483185696			

kms 1

Cost of abatement by state/grid										
Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Cost\$/tonne abatement	115.7179329	206.9884151	572.0703442	591.6283047	627.4845655	531.3245932	536.2140833	457.9822	464.5016	472.6507

	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance
TCO - Leaf	\$ -	\$ 0.88	\$ 0.05	\$ 0.04	\$ 0.02
Fuel savings	\$ 0.95	\$ 0.03			
Maintenance savings	\$ 0.96	\$ 0.01			
Carbon credit benefit	\$ 0.96	\$ 0.00			
Forecast up-front price reductions to 20	\$ 0.61	\$ 0.35			
TCO - Corolla	\$ -	\$ 0.53	\$ 0.09	\$ 0.03	\$ 0.01

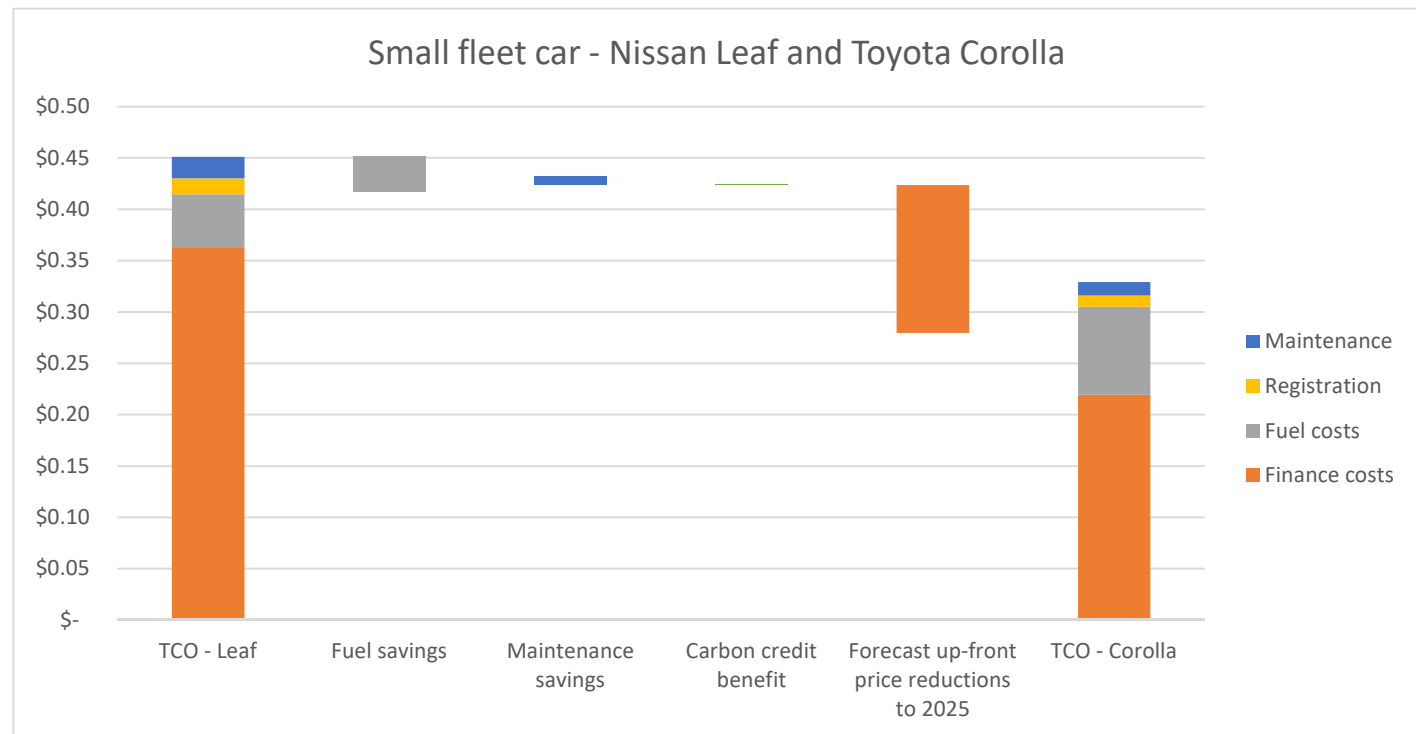


	ICE vehicle finance	Fuel difference	Maintenance reduction	ERF	Gap	Small EV vehicle finance
	0.219293372	0.0345	-0.00791047		0.001	0.363165302
total vehicle	ICE rego 0.0108577 0.230151072					EV rego 0.015672515 0.378837817
Reductions	ICE	EV				
Fuel costs		0.0858	0.0513			
Fuel difference for EV			0.0345			
ERF reduction			0.001			
Maintenance costs	0.01312336	0.021033829				
Maintenance reduction		-0.00791047				
25% reduction in EV finance to 2025		0.14387193				
				13716 k/year	51300	
					6263.587087 TCO gap	
					32.0625 abatement	
					195.3555427 \$/t	
TCO sum	0.3291	0.4512		0.1221 TCO difference		
MAIN DATA FIELDS - INSERT STUFF HERE	ICE	EV				
Financing and depreciation costs	0.2193	0.3632 (Note: depreciation costs now removed)			11249.75	18630.38
Rego costs	0.0109	0.0157			27108.66142	44894.90551
Fuel cost/km	0.0858	0.0513			557	804
ERF reduction/km		0.0010			1410.0318	2023.425387
Maintenance/km	0.0131	0.0210				
Depreciation @12.5% p.a	0.291757801	0.483185696				

kms 1

Cost of abatement by state/grid										
Average 2021-2025 (g/Wh)	0.142	0.254	0.702	0.726	0.77	0.652	0.658	0.562	0.57	0.58
State	TAS	SA	NSW/ACT	VIC	QLD	Australia	NEM	SWIS	NWIS	DKIS
Cost\$/tonne abatement	42.54675929	76.10476662	210.3367959	217.5277975	230.7113004	195.3555427	197.1532931	168.3893	170.7863	173.7825

	Series 1 (base)	Finance costs	Fuel costs	Registration	Maintenance
TCO - Leaf	\$ -	\$ 0.36	\$ 0.05	\$ 0.02	\$ 0.02
Fuel savings	\$ 0.42	\$ 0.03			
Maintenance savings	\$ 0.42	\$ 0.01			
Carbon credit benefit	\$ 0.42	\$ 0.00			
Forecast up-front price reductions to 2025	\$ 0.28	\$ 0.14			
TCO - Corolla	\$ -	\$ 0.22	\$ 0.09	\$ 0.01	\$ 0.01



ICE to EV saving	0.001071
ICE to Hybrid savings	0.000992
EV advantage	0.000079

2021 2022 2023 2024 2025 Average 2021-2025

km/yr

51300

hybrid Corolla emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.

km/yr	gCO2/km	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t
51300	101	5181300	5.1813	82.9008

ICE Corolla emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.

km/yr	gCO2/km	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t
51300	163	8361900	8.3619	133.7904

Saving, ICE - hybrid emissions, tCO2/yr 3.1806

Saving, ICE - hybrid emissions, \$/yr @ \$16/t \$ 50.89 **\$0.000992** \$co2/km benefit

ERF saving over 10 year vehicle life \$ 508.90

Brand	Models	Wh/km	Excluding large luxury
Audi	E-tron Quattro	236	
BMW	i3	137	137
Hyundai	Ioniq	117	117
	Kona	131	131
Jaguar	I PACE	230	
Mercedes	EQC	214	
Nissan	Leaf	171	171
Renault	Zoe Intens	144	144
Renault	Kangoo MAXI	155	155
Tesla	Model S (av)	169	169
Tesla	Model X	198	
Tesla	Model 3	188	
Average		174.1667	
Average, non-luxury		146.2857	

2021 2022 2023 2024 2025 Average 2021-2025

km/yr

13716

hybrid Corolla emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.

km/yr	gCO2/km	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t
13716	101	1385316	1.385316	22.16506

ICE Corolla emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.

km/yr	gCO2/km	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t
13716	163	2235708	2.235708	35.77133

Saving, ICE - EV emissions, tCO2/yr 0.850392

Saving, ICE - EV emissions, \$/yr @ \$16/t \$ 13.61 **\$ 0.0010** \$co2/km benefit

ERF saving over 10 year vehicle life \$ 136.06

Brand	Models	Wh/km	Excluding large luxury
Audi	E-tron Quattro	236	
BMW	i3	137	137
Hyundai	Ioniq	117	117
	Kona	131	131
Jaguar	I PACE	230	
Mercedes	EQC	214	
Nissan	Leaf	171	171
Renault	Zoe Intens	144	144
Renault	Kangoo MAXI	155	155
Tesla	Model S (av)	169	169
Tesla	Model X	198	
Tesla	Model 3	188	
	Average	174.1667	
	Average, non-luxury		146.2857

	Toyota Corolla	Nissan Leaf	
Financing costs	7248	12003.48	Financing costs are from Canstar monthly estimates, through NRMA
Fuel costs	4401.54	2631.69	Based on 171Wh/km from the GVG
Maintenance costs	180	288.5	Toyota maintenance costs are from Toyota, with the Toyota Advantage service option. Nissan service price is based on (https://www.dr
Registration costs	377	541	https://myrta.com/myRego/pages/content/rc/enterEnquiry.page-rego-calculator.NSW-for-a-registration-renewal-with-differences-b
Depreciation @12.5% p.a	4001.75	6627.375	https://atotaxrates.info/tax-deductions/work-related-car-expenses/depreciation-of-vehicles/

Purchase price 32014 53019
 Weight (kg) 1360 1594

Km/yr 51300
 Petrol price 1.43 \$1.43 per litre for petrol (BITRE 2019)
 Electricity price, \$/Wh 0.0003 The average cost of energy over 2019 was \$0.30/kWh for electricity (AEMC 2019)
 0.0858 0.0513

ive.com.au/new-car-review/2019-nissan-leaf-review-122067#:~:text=Servicing%20takes%20place%20every%2012,%24330%2C%20%24257%20and%20%24343%20respectively.)
[ased on weight. The Corolla weighs around 1360kg based on carexpert.com.au. Nissan Leaf weighs 1594kg based on Nissan figures.](#)

	Toyota Corolla	Nissan Leaf	
Financing costs	7248	12003.48	Financing costs are from Canstar monthly estimates, through NRMA
Fuel costs	1176.8328	703.6308	Based on 171Wh/km from the GVG
Maintenance costs	180	288.5	Toyota maintenance costs are from Toyota, with the Toyota Advantage service option. Nissan service price is based on (https://www.dr
Registration costs	377	541	https://myrta.com/myRego/pages/content/rc/enterEnquiry.page-rego-calculator.NSW-for-a-registration-renewal-with-differences-b
Depreciation @12.5% p.a	4001.75	6627.375	https://atotaxrates.info/tax-deductions/work-related-car-expenses/depreciation-of-vehicles/
Purchase price	32014	53019	
Weight (kg)	1360	1594	
Km/yr	13716		
Petrol price	1.43	\$1.43 per litre for petrol (BITRE 2019)	
Electricity price, \$/Wh	0.0003	The average cost of energy over 2019 was \$0.30/kWh for electricity (AEMC 2019)	

ive.com.au/new-car-review/2019-nissan-leaf-review-122067#:~:text=Servicing%20takes%20place%20every%2012,%24330%2C%20%24257%20and%20%24343%20respectively.)
[ased on weight. The Corolla weighs around 1360kg based on carexpert.com.au. Nissan Leaf weighs 1594kg based on Nissan figures.](#)

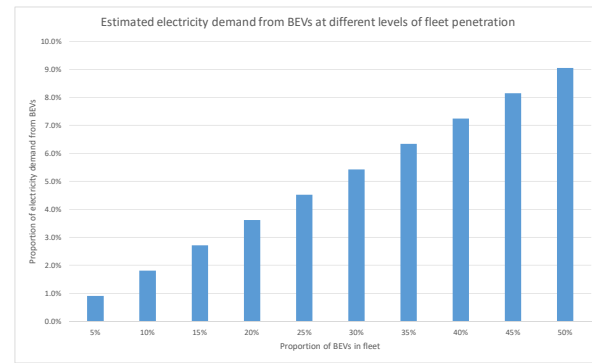
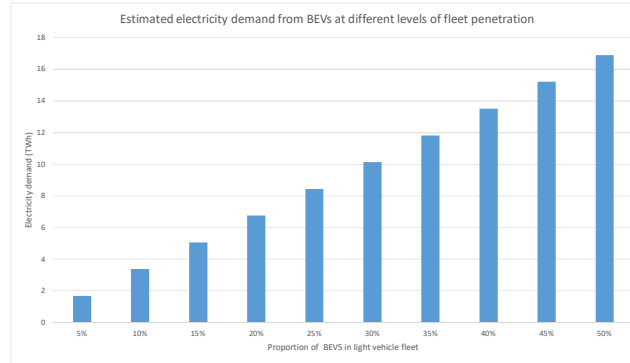
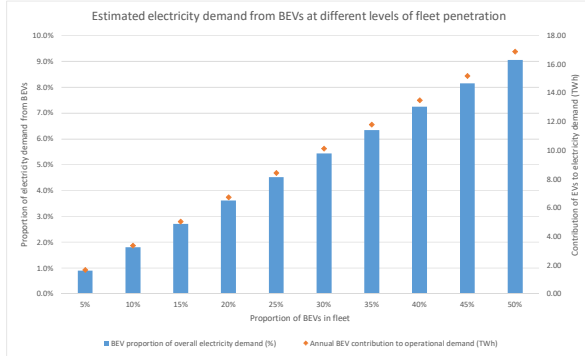
	2021	2022	2023	2024	2025	Average 2021-2025
Australia, all grid connected, tCO2/MWh	0.74	0.68	0.63	0.61	0.6	0.652
EV emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.	km/yr	Wh/km	gCO2/Wh	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t
	13716	174.166667	0.652	1557543	1.557543	24.92069184
ICE emissions - based on Scope 1 and 3 combined emissions factors, g CO2-e per km.	km/yr	gCO2/km	gCO2/yr	tCO2/yr	\$CO2/yr@\$16/t	
	13716	180.5	2475738	2.475738	39.61181	
Saving, ICE - EV emissions, tCO2/yr	0.918195					
Saving, ICE - EV emissions, \$/yr @ \$16/t	\$ 14.69	\$0.0010711	\$co2/km benefit			
ERF saving over 10 year vehicle life	\$ 146.91					
Saving, ICE - EV emissions, \$/yr @ \$16/t - if 100% renewable	\$ 39.61					
ERF saving over 10 year vehicle life if 100% renewable electricity	\$ 396.12					
Emissions reduction/yr	0.918195	0.85725	10.625	3.1806		
Emissions reduction over lifespan	9.181948	8.5725	106.25	31.806		
Lifespan (years)	10	10	10	10		
Cost gap for EV vs ICE	4755.48	3183.12	4940.62			
Indicative cost per tonne	\$ 475.55	\$ 318.31	\$ 494.06			
	\$ 517.92	\$ 371.32	\$ 46.50			
Emissions reduction Corolla v Corolla hybrid	180					

Brand	Models	Wh/km	Excluding large luxury
Audi	E-tron Quattro	236	
BMW	i3	137	137
Hyundai	Ioniq	117	117
	Kona	131	131
Jaguar	I PACE	230	
Mercedes	EQC	214	
Nissan	Leaf	171	171
Renault	Zoe Intens	144	144
Renault	Kangoo MAXI	155	155
Tesla	Model S (av)	169	169
Tesla	Model X	198	
Tesla	Model 3	188	
Average		174.1667	
Average, non-luxury			146.2857

		Abatement cost per tonne	t abated	\$ ERF/km	lifetime (yrs)	km/yr	\$/t ERF	Abatement cost per kilometre	
Small private vehicle	Toyota Corolla (ICE) vs Nissan Leaf (BEV)	555		8.5725	0.001	10 13716	16	0.004720174	64.74191
Small fleet vehicle	Toyota Corolla (ICE) vs Nissan Leaf (BEV)	230		32.0625	0.001	10 51300	16	0.000139834	
	Toyota Corolla (ICE) vs Toyota corolla (Hybrid)	0		32.0625	0.001	10 51300	16	0.00000	
Small light commercial vehicle	Renault Kangoo (ICE) vs Renault Kangoo (BEV)	845		10.6875	0.001	10 17100	16	0.004623645	

AK CREATED		Abatement cost per tonne	t abated	\$ ERF/km	lifetime (yrs)	km/yr	\$/t ERF	Abatement cost per kilometre
Small private vehicle	Toyota Corolla (ICE) vs Nissan Leaf (BEV)	555		9.18	0.0011	10 13716	16	0.00441
Small fleet vehicle	Toyota Corolla (ICE) vs Nissan Leaf (BEV)	230		34.34	0.0011	10 51300	16	0.00013
	Toyota Corolla (ICE) vs Toyota corolla (Hybrid)	12		31.81	0.0010	10 51300	16	0.00001
Small light commercial vehicle	Renault Kangoo (ICE) vs Renault Kangoo (BEV)	845		11.45	0.0011	10 17100	16	0.00432

Number of EVs in fleet (based on ABS data)	Proportion of fleet (%)	BEV proportion of overall electricity demand (%)	Annual BEV contribution to operational demand (GWh)	Forecast 2030 total operational demand inc EVs (GWh)
733962.3	5%	0.91%	1.69	186,569.19
1467924.6	10%	1.81%	3.38	186,570.88
2201886.9	15%	2.72%	5.07	186,572.57
2935849.2	20%	3.62%	6.76	186,574.26
3669811.5	25%	4.53%	8.44	186,575.94
4403773.8	30%	5.43%	10.13	186,577.63
5137736.1	35%	6.34%	11.82	186,579.32
5871698.4	40%	7.24%	13.51	186,581.01
6605660.7	45%	8.15%	15.20	186,582.70
7339623	50%	9.05%	16.89	186,584.39



Assumptions:

Consumption per car/year (GWh) 0.002300963 Based on GVG data in next sheet (which is in a wh/km format), multiplied by number of km below (ABS). Converted from a Wh/km unit to a GWh/km unit.

Total passenger vehicle fleet size: 14,679,246 Jan 31 2020 - ABS motor vehicle census

Average km/year for passenger vehicles 13716 ABS

Total annual operational demand for NEM and WEM (exc EVs) 186567.5 Sum of both NEM and WEM figures below.

Annual operational electricity demand (exc EVs) NEM (GWh): 169900.5 AEMO ES00 projection for "central scenario" for 2030, but excluding their EV forecast to avoid double counting. From AEMO forecasting portal: <http://forecasting.aemo.com.au/>. Total consumption forecast is 172,162.87, minus forecasted EV share of 2262.37, giving a total 169,900.5 GWh

Annual operational electricity demand (exc EVs) WEM (GWh): 16667 We use 2029-2030 operational consumption is forecasted to be 17,029 GWh [Table 42] minus the EV's share of 362 GWh (2.12% share, Figure 29) to 16667 give 16,667 GWh.

Fuel Type	Pure Electric	Average of Electricity Efficiency (Wh/km)								
Row Labels	Column Labels	2009	2010	2012	2014	2015	2016	2017	2018	2019
BMW										
I01										
i3					129					136
i3 BEV 94 Ah										
i3 BEV 94Ah							131			
i3s BEV 94 Ah										143
i3										137
i3 BEV 120Ah										145
i3s BEV 120Ah										
Hyundai										
Ioniq										
EV									115	117
Kona										
EV										131
Jaguar										
I-Pace										
400EV									230	
Mercedes-Benz										
EQC Class										
EQC400 4MATIC									212.3333333	
Mitsubishi										
i car										
I MIEV		132								
I-MIEV				135						
Nissan										
Leaf										
(blank)				173						
ZE1 LEAF										171
(blank)										
Renault										
Kangoo										
ZE					155					
ZOE										
15/16 Wheels*										133
17 wheels*										150
Tesla										
Model 3										
Long range base (E3DB)										209
Long Range Dual Motor (E3DB)										209
Performance (E3DP)										207
Standard Range Plus (E1RB)										188
Model S										
100 kWh Performance Dual Motor							200			
100DB dual base motor										189
60 kWh					181		186			
60 kWh Dual Motor							186			
60RP										185
70 kWh						185	185			
70 kWh Dual Motor						217	186			
70RP										185
75 kWh										185
75 kWh Dual Motor							186			
75RP										185
85 kWh				193.1428571						
85 kWh Dual Motor									208.2	
85 kWh Performance					181					
85 kWh Performance Dual Motor									219.6	
90 kWh									198	
90 kWh Dual Motor								206	189	
90 kWh Performance Dual Motor							215	200		
SA1EB Standard Range										173
SA3EB Long Range										163
SA3EP Performance										170
Model X										
100 kWh Performance Dual Motor							226			
100XB dual base motor									208	
60 kWh Dual Motor									208	
75 kWh Dual Motor									208	
90 kWh Dual Motor									208	
90 kWh Performance Dual Motor									217	
Long Range (XA3EB)										198
XA1EB Standard Range										199
XA3EP Performance										208
Roadster										
(blank)				231						

Average of models available in Australia in 2019 (excluding double up models) [Wh/km] **167.757576**

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Table 1 revised

Vehicle type and model	TCO ICE vehicle (\$ per km)	TCO BEV / Hybrid (\$ per km)	Additional cost for BEV / Hybrid (\$ per km)	BEV / Hybrid savings (\$ per km)			Remaining TCO gap for BEV / Hybrid (\$ per km)	Cost to abate (\$ per tonne)
				Fuel savings	Maintenance savings	Carbon credit benefit		
Small private vehicle Toyota Corolla (ICE) vs Nissan Leaf (BEV)	0.655	0.988	0.332	0.035	-0.008	0.001	0.304	531
Small private vehicle Toyota Corolla (ICE) vs Toyota Corolla (Hybrid)	0.669	0.671	0.002	0.026	0.000	0.001	-0.025	3.60
Small fleet vehicle Toyota Corolla (ICE) vs Nissan Leaf (BEV)	0.329	0.451	0.122	0.035	-0.008	0.001	0.095	195
Small fleet vehicle Toyota Corolla (ICE) vs Toyota Corolla (Hybrid)	0.241	0.223	-0.018	0.026	0.000	0.001	-0.045	-29
Small light commercial vehicle Renault Kangoo (ICE) vs Renault Kangoo (BEV)	0.730	1.198	0.467	0.046	0.030	0.001	0.390	747

Table 2 revised

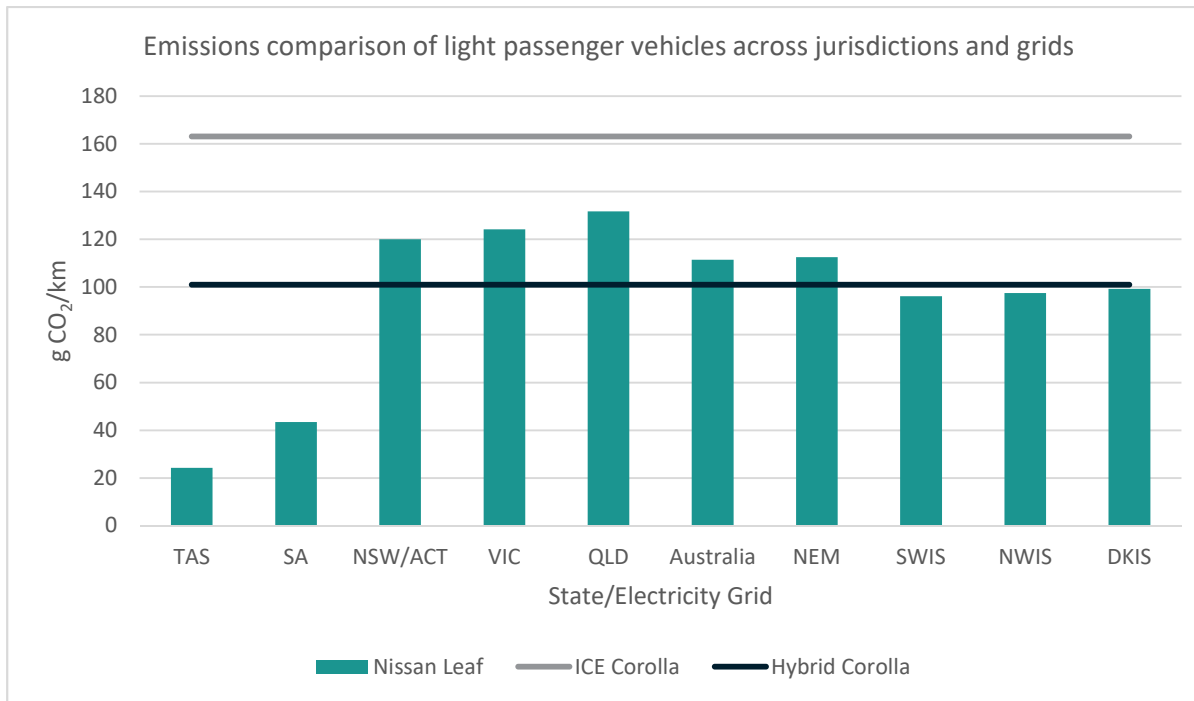
Vehicle type and model	Abatement cost (\$ per tonne)	Total cost of ownership gap (\$)
Small private vehicle Toyota Corolla (ICE) vs Nissan Leaf (BEV)	531	4,555

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	Toyota Corolla (ICE) vs Toyota Corolla (Hybrid)	3.60	30.64
Small fleet vehicle	Toyota Corolla (ICE) vs Nissan Leaf (BEV)	195	6,264
	Toyota Corolla (ICE) vs Toyota Corolla (Hybrid)	-29	-937
Small light commercial vehicle	Renault Kangoo (ICE) vs Renault Kangoo (BEV)	747	7,980

Graph: Emissions comparison of light passenger vehicles



Graph explainer/source text

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Source: Indirect emissions factors for Australia's electricity grids averaged over 2021 to 2025 from table 'Indirect Scope 2 and 3 combined emissions factors, tonnes CO₂-e per MWh' (Commonwealth of Australia, 2020a) and g/km were sourced from the Green Vehicle Guide (Commonwealth of Australia, 2021).

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