

# Preliminary Regulatory Impact Analysis: CAFE DATA BOOK (Appendix II)

Corporate Average Fuel Economy Standards for Passenger Cars and Light Trucks for Model Years 2027 and Beyond and Fuel Efficiency Standards for Heavy-Duty Pickup Trucks and Vans for Model Years 2030 and Beyond

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U.S. Department of Transportation  
National Highway Traffic Safety  
Administration



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## Summary Tables

**Table 1 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	42.6	42.6	1.6	3.1
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-1.6	-3.1

**Table 2 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	13.5	13.5	0.5	1.0
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-0.5	-1.0

**Table 3 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	29.0	29.0	1.1	2.1
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-1.1	-2.1

**Table 4 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	42.3	42.3	1.6	3.1
Benefits	25.0	14.9	1.0	1.1
Net Benefits	1.6	-0.8	-0.7	-2.0

**Table 5 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	13.5	13.5	0.5	1.0
Benefits	5.7	3.3	0.2	0.2
Net Benefits	2.8	1.0	-0.3	-0.7

**Table 6 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	28.8	28.8	1.1	2.1
Benefits	19.3	11.5	0.7	0.8
Net Benefits	-1.3	-1.8	-0.4	-1.2



**Table 7 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	42.2	42.2	1.6	3.0
Benefits	37.2	22.0	1.4	1.6
Net Benefits	-0.7	-3.4	-0.2	-1.5

**Table 8 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	13.5	13.5	0.5	1.0
Benefits	5.9	3.4	0.2	0.2
Net Benefits	1.4	-0.1	-0.3	-0.7

**Table 9 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	28.7	28.7	1.1	2.1
Benefits	31.3	18.5	1.2	1.3
Net Benefits	-2.1	-3.3	0.1	-0.7

**Table 10 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	41.9	41.9	1.6	3.0
Benefits	60.6	35.4	2.3	2.6
Net Benefits	1.9	-3.6	0.7	-0.5

**Table 11 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	13.4	13.4	0.5	1.0
Benefits	8.6	5.0	0.3	0.4
Net Benefits	-0.9	-1.8	-0.2	-0.6

**Table 12 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	28.5	28.5	1.1	2.1
Benefits	52.0	30.4	2.0	2.2
Net Benefits	2.8	-1.8	0.9	0.1

**Table 13 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Total Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	41.1	41.1	1.6	3.0
Benefits	133.3	76.4	5.1	5.5
Net Benefits	2.6	-9.9	3.5	2.5

**Table 14 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Passenger Car Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	13.3	13.3	0.5	1.0
Benefits	23.1	13.3	0.9	1.0
Net Benefits	-6.8	-7.3	0.4	0.0



**Table 15 - Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars), Light Truck Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	27.9	27.9	1.1	2.0
Benefits	110.1	63.1	4.2	4.6
Net Benefits	9.5	-2.6	3.1	2.5

**Table 16 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	51.0	51.0	2.7	4.2
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-2.7	-4.2

**Table 17 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	15.2	15.2	0.8	1.2
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-0.8	-1.2

**Table 18 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for No Action Alternative (Baseline), Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for No Action Alternative (Baseline), Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	35.8	35.8	1.9	2.9
Benefits	0.0	0.0	0.0	0.0
Net Benefits	0.0	0.0	-1.9	-2.9

**Table 19 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	50.7	50.7	2.6	4.1
Benefits	35.9	20.1	1.9	1.6
Net Benefits	2.9	-0.4	-0.8	-2.5

**Table 20 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	15.0	15.0	0.8	1.2
Benefits	14.0	7.3	0.7	0.6
Net Benefits	7.2	2.9	-0.1	-0.6

**Table 21 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC1LT3, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC1LT3, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	35.6	35.6	1.9	2.9
Benefits	21.9	12.8	1.1	1.0
Net Benefits	-4.3	-3.3	-0.7	-1.9

**Table 22 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	50.4	50.4	2.6	4.1
Benefits	65.4	35.3	3.4	2.9
Net Benefits	-1.5	-4.1	0.8	-1.2



**Table 23 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	15.0	15.0	0.8	1.2
Benefits	15.5	7.9	0.8	0.6
Net Benefits	3.2	0.5	0.0	-0.6

**Table 24 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC2LT4, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC2LT4, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	35.3	35.3	1.8	2.9
Benefits	49.8	27.3	2.6	2.2
Net Benefits	-4.7	-4.6	0.8	-0.7

**Table 25 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	49.6	49.6	2.6	4.0
Benefits	137.4	72.1	7.2	5.9
Net Benefits	12.4	1.0	4.6	1.8

**Table 26 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	15.0	15.0	0.8	1.2
Benefits	19.9	10.5	1.0	0.9
Net Benefits	-2.5	-2.8	0.3	-0.4

**Table 27 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC3LT5, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC3LT5, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	34.6	34.6	1.8	2.8
Benefits	117.5	61.6	6.1	5.0
Net Benefits	14.9	3.8	4.3	2.2

**Table 28 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Total Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	46.7	46.7	2.4	3.8
Benefits	390.3	200.1	20.3	16.3
Net Benefits	46.8	9.5	17.9	12.5

**Table 29 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Passenger Car Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	14.4	14.4	0.7	1.2
Benefits	65.2	33.5	3.4	2.7
Net Benefits	-17.3	-12.6	2.6	1.6

**Table 30 - Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC6LT8, Average SCC**

<b>Estimated Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars), Light Truck Fleet for Alternative PC6LT8, Average SCC</b>				
	Totals		Annualized	
	3% Discount Rate	7% Discount Rate	3% Discount Rate	7% Discount Rate
Costs	32.3	32.3	1.7	2.6
Benefits	325.1	166.6	16.9	13.6
Net Benefits	64.1	22.1	15.3	10.9



**Table 31 - Estimated Total Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Total Fleet, by Alternative, Average SCC**

<b>Estimated Total Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Total Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	42.3	25.0	1.6	42.3	14.9	-0.8
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	42.2	37.2	-0.7	42.2	22.0	-3.4
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	41.9	60.6	1.9	41.9	35.4	-3.6
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	41.1	133.3	2.6	41.1	76.4	-9.9

**Table 32 - Estimated Passenger Car Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Passenger Car Fleet, by Alternative, Average SCC**

<b>Estimated Passenger Car Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Passenger Car Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	13.5	5.7	2.8	13.5	3.3	1.0
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	13.5	5.9	1.4	13.5	3.4	-0.1
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	13.4	8.6	-0.9	13.4	5.0	-1.8
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	13.3	23.1	-6.8	13.3	13.3	-7.3

**Table 33 - Estimated Light Truck Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Light Truck Fleet, by Alternative, Average SCC**

<b>Estimated Light Truck Fleet Costs, Benefits, and Net Benefits Across MYs 1981-2032 (billions of dollars) Light Truck Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	28.8	19.3	-1.3	28.8	11.5	-1.8
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	28.7	31.3	-2.1	28.7	18.5	-3.3
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	28.5	52.0	2.8	28.5	30.4	-1.8
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	27.9	110.1	9.5	27.9	63.1	-2.6

**Table 34 - Estimated Total Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Total Fleet, by Alternative, Average SCC**

<b>Estimated Total Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Total Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	50.7	35.9	2.9	50.7	20.1	-0.4
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	50.4	65.4	-1.5	50.4	35.3	-4.1
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	49.6	137.4	12.4	49.6	72.1	1.0
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	46.7	390.3	46.8	46.7	200.1	9.5

**Table 35 - Estimated Passenger Car Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Passenger Car Fleet, by Alternative, Average SCC**

<b>Estimated Passenger Car Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Passenger Car Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	15.0	14.0	7.2	15.0	7.3	2.9
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	15.0	15.5	3.2	15.0	7.9	0.5
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	15.0	19.9	-2.5	15.0	10.5	-2.8
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	14.4	65.2	-17.3	14.4	33.5	-12.6

**Table 36 - Estimated Light Truck Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Light Truck Fleet, by Alternative, Average SCC**

<b>Estimated Light Truck Fleet Costs, Benefits, and Net Benefits Across Calendar Years 2022-2050 (billions of dollars) Light Truck Fleet, by Alternative, Average SCC</b>						
Alternative	3% Discount Rate			7% Discount Rate		
	Costs	Benefits	Net Benefits	Costs	Benefits	Net Benefits
1.00%/Y Pc And 3.00%/Y Lt During 2027-2032	35.6	21.9	-4.3	35.6	12.8	-3.3
2.00%/Y Pc And 4.00%/Y Lt During 2027-2032	35.3	49.8	-4.7	35.3	27.3	-4.6
3.00%/Y Pc And 5.00%/Y Lt During 2027-2032	34.6	117.5	14.9	34.6	61.6	3.8
6.00%/Y Pc And 8.00%/Y Lt During 2027-2032	32.3	325.1	64.1	32.3	166.6	22.1

## Estimated Required CAFE Levels

**Table 37 - Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), No Action Alternative (Baseline)**

Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), No Action Alternative (Baseline)			
Model Year	Passenger Car	Light Truck	Combined
2027	58.8	42.6	46.7
2028	58.8	42.6	46.7
2029	58.8	42.6	46.7
2030	58.8	42.6	46.7
2031	58.8	42.6	46.7
2032	58.8	42.6	46.7

**Table 38 - Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC1LT3**

<b>Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC1LT3</b>			
Model Year	Passenger Car	Light Truck	Combined
2027	59.4	43.9	47.9
2028	60.0	45.3	49.1
2029	60.6	46.7	50.3
2030	61.2	48.1	51.6
2031	61.8	49.6	53.0
2032	62.4	51.2	54.3



**Table 39 - Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC2LT4**

<b>Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC2LT4</b>			
Model Year	Passenger Car	Light Truck	Combined
2027	60.0	44.4	48.4
2028	61.2	46.2	50.1
2029	62.5	48.2	51.9
2030	63.7	50.2	53.8
2031	65.1	52.2	55.7
2032	66.4	54.4	57.7

**Table 40 - Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC3LT5**

<b>Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC3LT5</b>			
Model Year	Passenger Car	Light Truck	Combined
2027	60.6	44.9	48.9
2028	62.5	47.2	51.2
2029	64.4	49.7	53.5
2030	66.4	52.3	56.1
2031	68.5	55.1	58.7
2032	70.6	58.0	61.5

**Table 41 - Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC6LT8**

<b>Average CAFE Requirements for Passenger Cars, Light Trucks, and Combined (mpg), Alternative PC6LT8</b>			
Model Year	Passenger Car	Light Truck	Combined
2027	62.5	46.3	50.5
2028	66.5	50.3	54.5
2029	70.8	54.7	58.9
2030	75.3	59.5	63.7
2031	80.1	64.6	68.9
2032	85.2	70.3	74.4

**Table 42 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Total)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	46.7	46.7	46.7	46.7	46.7	46.7
Alternative PC1LT3	47.9	49.1	50.3	51.6	53.0	54.3
Alternative PC2LT4	48.4	50.1	51.9	53.8	55.7	57.7
Alternative PC3LT5	48.9	51.2	53.5	56.1	58.7	61.5
Alternative PC6LT8	50.5	54.5	58.9	63.7	68.9	74.4

**Table 43 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Total)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	58.8	58.8	58.8	58.8	58.8	58.8
Alternative PC1LT3	59.4	60.0	60.6	61.2	61.8	62.4
Alternative PC2LT4	60.0	61.2	62.5	63.7	65.1	66.4
Alternative PC3LT5	60.6	62.5	64.4	66.4	68.5	70.6
Alternative PC6LT8	62.5	66.5	70.8	75.3	80.1	85.2

**Table 44 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Total)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	42.6	42.6	42.6	42.6	42.6	42.6
Alternative PC1LT3	43.9	45.3	46.7	48.1	49.6	51.2
Alternative PC2LT4	44.4	46.2	48.2	50.2	52.2	54.4
Alternative PC3LT5	44.9	47.2	49.7	52.3	55.1	58.0
Alternative PC6LT8	46.3	50.3	54.7	59.5	64.6	70.3

**Table 45 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (BMW)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.2	49.2	49.1	49.2	49.2	49.2
Alternative PC1LT3	50.3	51.4	52.5	53.7	54.9	56.0
Alternative PC2LT4	50.8	52.4	54.1	55.9	57.8	59.7
Alternative PC3LT5	51.3	53.5	55.9	58.3	60.8	63.5
Alternative PC6LT8	53.0	57.0	61.4	66.2	71.4	76.8

**Table 46 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Ford)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.4	41.3	41.3	41.3	41.4	41.4
Alternative PC1LT3	42.5	43.8	45.1	46.4	47.8	49.2
Alternative PC2LT4	42.9	44.7	46.5	48.4	50.3	52.3
Alternative PC3LT5	43.5	45.6	47.9	50.4	53.0	55.7
Alternative PC6LT8	44.8	48.6	52.8	57.3	62.2	67.5



**Table 47 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (GM)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	42.2	42.2	42.2	42.2	42.3	42.3
Alternative PC1LT3	43.4	44.6	45.9	47.1	48.5	49.8
Alternative PC2LT4	43.8	45.6	47.2	49.1	51.0	53.0
Alternative PC3LT5	44.4	46.5	48.7	51.2	53.8	56.4
Alternative PC6LT8	45.8	49.5	53.7	58.2	63.1	68.3

**Table 48 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Honda)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	51.1	51.1	51.0	51.1	51.1	51.1
Alternative PC1LT3	52.2	53.4	54.6	55.8	57.1	58.3
Alternative PC2LT4	52.8	54.5	56.2	58.1	60.1	62.0
Alternative PC3LT5	53.4	55.6	58.1	60.5	63.2	66.0
Alternative PC6LT8	55.1	59.3	63.8	68.8	74.2	79.8

**Table 49 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	51.9	51.8	51.8	51.8	51.9	51.9
Alternative PC1LT3	52.9	54.0	55.1	56.2	57.4	58.6
Alternative PC2LT4	53.5	55.1	56.8	58.6	60.4	62.3
Alternative PC3LT5	54.1	56.3	58.6	61.1	63.7	66.3
Alternative PC6LT8	55.8	60.0	64.4	69.3	74.6	80.2

**Table 50 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	51.7	51.6	51.6	51.6	51.7	51.7
Alternative PC1LT3	52.8	53.9	55.0	56.2	57.4	58.6
Alternative PC2LT4	53.3	55.0	56.7	58.5	60.5	62.4
Alternative PC3LT5	53.9	56.1	58.5	61.0	63.7	66.3
Alternative PC6LT8	55.6	59.8	64.4	69.3	74.6	80.3

**Table 51 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (JLR)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.7	43.7	43.7	43.7	43.7	43.7
Alternative PC1LT3	45.1	46.4	47.9	49.4	50.9	52.4
Alternative PC2LT4	45.5	47.4	49.4	51.4	53.6	55.8
Alternative PC3LT5	46.0	48.4	51.0	53.6	56.4	59.4
Alternative PC6LT8	47.5	51.6	56.1	60.9	66.2	72.0

**Table 52 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Karma)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.1	54.1	54.1	54.1	54.1	54.1
Alternative PC1LT3	54.6	55.2	55.7	56.3	56.9	57.4
Alternative PC2LT4	55.2	56.3	57.5	58.6	59.8	61.1
Alternative PC3LT5	55.8	57.5	59.3	61.1	63.0	64.9
Alternative PC6LT8	57.5	61.2	65.1	69.3	73.7	78.4

**Table 53 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Lucid)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.1	54.1	54.1	54.1	54.1	54.1
Alternative PC1LT3	54.6	55.2	55.7	56.3	56.9	57.4
Alternative PC2LT4	55.2	56.3	57.5	58.6	59.8	61.1
Alternative PC3LT5	55.8	57.5	59.3	61.1	63.0	64.9
Alternative PC6LT8	57.5	61.2	65.1	69.3	73.7	78.4

**Table 54 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mazda)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.3	49.3	49.3	49.3	49.3	49.3
Alternative PC1LT3	50.8	52.2	53.7	55.2	56.8	58.5
Alternative PC2LT4	51.3	53.3	55.4	57.6	59.9	62.3
Alternative PC3LT5	51.9	54.4	57.2	60.1	63.1	66.2
Alternative PC6LT8	53.5	58.0	63.0	68.2	74.1	80.3



**Table 55 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.3	48.3	48.3	48.3	48.3	48.3
Alternative PC1LT3	49.4	50.5	51.6	52.8	54.1	55.3
Alternative PC2LT4	49.9	51.5	53.3	55.0	56.9	58.8
Alternative PC3LT5	50.5	52.6	55.0	57.4	59.9	62.6
Alternative PC6LT8	52.1	56.1	60.4	65.2	70.3	75.7

**Table 56 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	55.1	55.1	55.1	55.1	55.1	55.1
Alternative PC1LT3	56.3	57.5	58.7	60.0	61.3	62.6
Alternative PC2LT4	56.9	58.7	60.5	62.5	64.5	66.6
Alternative PC3LT5	57.5	59.9	62.4	65.1	68.0	70.9
Alternative PC6LT8	59.4	63.9	68.7	74.0	79.7	85.8

**Table 57 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Nissan)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	50.9	50.8	50.8	50.8	50.9	50.9
Alternative PC1LT3	51.9	53.0	54.1	55.3	56.5	57.7
Alternative PC2LT4	52.5	54.1	55.8	57.6	59.5	61.4
Alternative PC3LT5	53.0	55.3	57.6	60.1	62.7	65.3
Alternative PC6LT8	54.7	58.8	63.3	68.2	73.5	79.1

**Table 58 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Stellantis)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	42.1	42.1	42.1	42.1	42.1	42.1
Alternative PC1LT3	43.3	44.5	45.9	47.2	48.6	50.0
Alternative PC2LT4	43.8	45.6	47.3	49.2	51.1	53.2
Alternative PC3LT5	44.2	46.5	48.8	51.3	53.9	56.6
Alternative PC6LT8	45.7	49.5	53.7	58.4	63.3	68.6

**Table 59 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Subaru)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.9	49.9	49.9	49.9	49.9	49.9
Alternative PC1LT3	51.4	52.9	54.4	55.9	57.5	59.2
Alternative PC2LT4	51.9	53.9	56.0	58.2	60.5	62.9
Alternative PC3LT5	52.5	55.1	57.8	60.8	63.8	67.0
Alternative PC6LT8	54.1	58.7	63.6	69.0	74.9	81.2

**Table 60 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Tesla)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.1	54.1	54.1	54.1	54.1	54.1
Alternative PC1LT3	54.6	55.3	55.9	56.6	57.2	57.8
Alternative PC2LT4	55.2	56.4	57.7	58.9	60.3	61.5
Alternative PC3LT5	55.8	57.6	59.5	61.4	63.4	65.4
Alternative PC6LT8	57.6	61.3	65.4	69.6	74.2	79.0

**Table 61 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Toyota)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.3	48.3	48.3	48.3	48.3	48.4
Alternative PC1LT3	49.5	50.7	52.0	53.3	54.6	55.9
Alternative PC2LT4	50.0	51.8	53.6	55.5	57.5	59.5
Alternative PC3LT5	50.6	52.8	55.3	57.9	60.5	63.4
Alternative PC6LT8	52.2	56.3	60.8	65.7	71.0	76.7

**Table 62 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Volvo)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	47.3	47.3	47.3	47.3	47.3	47.3
Alternative PC1LT3	48.6	49.8	51.0	52.4	53.8	55.2
Alternative PC2LT4	49.0	50.8	52.7	54.6	56.7	58.7
Alternative PC3LT5	49.5	51.9	54.4	56.9	59.7	62.5
Alternative PC6LT8	51.2	55.3	59.8	64.7	70.0	75.7



**Table 63 - Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (VWA)**

<b>Estimated Required Average Fuel Economy (mpg), Total Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.6	49.6	49.5	49.5	49.6	49.6
Alternative PC1LT3	50.8	52.1	53.4	54.6	56.0	57.4
Alternative PC2LT4	51.3	53.1	55.0	57.0	59.0	61.0
Alternative PC3LT5	51.9	54.2	56.8	59.4	62.1	65.0
Alternative PC6LT8	53.6	57.9	62.4	67.5	72.9	78.7

**Table 64 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (BMW)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.7	57.7	57.7	57.7	57.7	57.7
Alternative PC1LT3	58.3	58.9	59.5	60.1	60.7	61.3
Alternative PC2LT4	58.9	60.1	61.3	62.6	63.9	65.2
Alternative PC3LT5	59.5	61.4	63.3	65.2	67.2	69.3
Alternative PC6LT8	61.4	65.3	69.5	73.9	78.7	83.7

**Table 65 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Ford)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.9	57.9	57.9	57.9	57.9	57.9
Alternative PC1LT3	58.4	59.0	59.6	60.2	60.8	61.5
Alternative PC2LT4	59.0	60.2	61.5	62.7	64.0	65.3
Alternative PC3LT5	59.6	61.5	63.4	65.4	67.4	69.5
Alternative PC6LT8	61.6	65.5	69.7	74.1	78.8	83.9

**Table 66 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (GM)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	60.1	60.1	60.1	60.1	60.1	60.1
Alternative PC1LT3	60.7	61.3	61.9	62.6	63.2	63.8
Alternative PC2LT4	61.3	62.6	63.9	65.1	66.5	67.8
Alternative PC3LT5	61.9	63.9	65.8	67.9	70.0	72.1
Alternative PC6LT8	63.9	68.0	72.3	77.0	81.9	87.1

**Table 67 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Honda)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	59.6	59.6	59.6	59.6	59.6	59.6
Alternative PC1LT3	60.2	60.8	61.4	62.1	62.7	63.3
Alternative PC2LT4	60.8	62.1	63.3	64.6	66.0	67.3
Alternative PC3LT5	61.5	63.4	65.3	67.3	69.4	71.6
Alternative PC6LT8	63.4	67.5	71.8	76.4	81.2	86.4

**Table 68 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	59.0	59.0	59.0	59.0	59.0	59.0
Alternative PC1LT3	59.6	60.2	60.8	61.4	62.0	62.7
Alternative PC2LT4	60.2	61.4	62.7	64.0	65.3	66.6
Alternative PC3LT5	60.8	62.7	64.6	66.6	68.7	70.8
Alternative PC6LT8	62.8	66.8	71.0	75.5	80.3	85.5

**Table 69 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	59.6	59.6	59.6	59.6	59.6	59.6
Alternative PC1LT3	60.2	60.8	61.4	62.1	62.7	63.3
Alternative PC2LT4	60.8	62.1	63.3	64.6	65.9	67.2
Alternative PC3LT5	61.5	63.3	65.3	67.3	69.4	71.6
Alternative PC6LT8	63.4	67.4	71.8	76.3	81.2	86.4

**Table 70 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (JLR)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.5	57.5	57.5	57.5	57.5	57.5
Alternative PC1LT3	58.1	58.7	59.3	59.9	60.5	61.1
Alternative PC2LT4	58.7	59.9	61.1	62.4	63.6	64.9
Alternative PC3LT5	59.3	61.1	63.0	65.0	67.0	69.1
Alternative PC6LT8	61.2	65.1	69.3	73.7	78.4	83.4



**Table 71 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Karma)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.1	54.1	54.1	54.1	54.1	54.1
Alternative PC1LT3	54.6	55.2	55.7	56.3	56.9	57.4
Alternative PC2LT4	55.2	56.3	57.5	58.6	59.8	61.1
Alternative PC3LT5	55.8	57.5	59.3	61.1	63.0	64.9
Alternative PC6LT8	57.5	61.2	65.1	69.3	73.7	78.4

**Table 72 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Lucid)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.1	54.1	54.1	54.1	54.1	54.1
Alternative PC1LT3	54.6	55.2	55.7	56.3	56.9	57.4
Alternative PC2LT4	55.2	56.3	57.5	58.6	59.8	61.1
Alternative PC3LT5	55.8	57.5	59.3	61.1	63.0	64.9
Alternative PC6LT8	57.5	61.2	65.1	69.3	73.7	78.4

**Table 73 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mazda)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	61.5	61.5	61.5	61.5	61.5	61.5
Alternative PC1LT3	62.1	62.7	63.4	64.0	64.7	65.3
Alternative PC2LT4	62.7	64.0	65.3	66.7	68.0	69.4
Alternative PC3LT5	63.4	65.3	67.4	69.5	71.6	73.8
Alternative PC6LT8	65.4	69.6	74.0	78.7	83.8	89.1

**Table 74 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	55.6	55.6	55.6	55.6	55.6	55.6
Alternative PC1LT3	56.2	56.8	57.3	57.9	58.5	59.1
Alternative PC2LT4	56.8	57.9	59.1	60.3	61.6	62.8
Alternative PC3LT5	57.4	59.1	61.0	62.8	64.8	66.8
Alternative PC6LT8	59.2	63.0	67.0	71.3	75.8	80.7

**Table 75 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	62.7	62.7	62.7	62.7	62.7	62.7
Alternative PC1LT3	63.3	63.9	64.6	65.2	65.9	66.5
Alternative PC2LT4	63.9	65.2	66.6	67.9	69.3	70.7
Alternative PC3LT5	64.6	66.6	68.6	70.8	73.0	75.2
Alternative PC6LT8	66.7	70.9	75.4	80.2	85.4	90.8

**Table 76 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Nissan)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	59.6	59.6	59.6	59.6	59.6	59.6
Alternative PC1LT3	60.2	60.8	61.4	62.1	62.7	63.3
Alternative PC2LT4	60.8	62.1	63.3	64.6	65.9	67.3
Alternative PC3LT5	61.4	63.4	65.3	67.3	69.4	71.5
Alternative PC6LT8	63.4	67.5	71.7	76.3	81.2	86.4

**Table 77 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Stellantis)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	55.6	55.6	55.6	55.6	55.6	55.6
Alternative PC1LT3	56.2	56.8	57.3	57.9	58.5	59.1
Alternative PC2LT4	56.8	57.9	59.1	60.3	61.5	62.8
Alternative PC3LT5	57.3	59.1	60.9	62.8	64.8	66.8
Alternative PC6LT8	59.2	63.0	67.0	71.2	75.8	80.6

**Table 78 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Subaru)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	61.3	61.3	61.3	61.3	61.3	61.3
Alternative PC1LT3	61.9	62.5	63.1	63.8	64.4	65.1
Alternative PC2LT4	62.5	63.8	65.1	66.4	67.8	69.2
Alternative PC3LT5	63.2	65.1	67.1	69.2	71.3	73.6
Alternative PC6LT8	65.2	69.3	73.8	78.5	83.5	88.8



**Table 79 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Tesla)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.8	54.8	54.8	54.8	54.8	54.8
Alternative PC1LT3	55.3	55.9	56.4	57.0	57.6	58.2
Alternative PC2LT4	55.9	57.0	58.2	59.4	60.7	61.9
Alternative PC3LT5	56.5	58.2	60.1	61.9	63.8	65.8
Alternative PC6LT8	58.3	62.0	66.0	70.1	74.6	79.4

**Table 80 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Toyota)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	59.6	59.6	59.6	59.6	59.6	59.6
Alternative PC1LT3	60.2	60.8	61.4	62.1	62.7	63.3
Alternative PC2LT4	60.8	62.1	63.4	64.6	65.9	67.3
Alternative PC3LT5	61.5	63.4	65.3	67.3	69.4	71.6
Alternative PC6LT8	63.4	67.4	71.8	76.3	81.2	86.4

**Table 81 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Volvo)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.2	57.2	57.2	57.2	57.2	57.2
Alternative PC1LT3	57.8	58.3	58.9	59.5	60.1	60.8
Alternative PC2LT4	58.3	59.5	60.8	62.0	63.3	64.6
Alternative PC3LT5	59.0	60.8	62.7	64.6	66.6	68.6
Alternative PC6LT8	60.8	64.8	68.8	73.2	77.9	82.9

**Table 82 - Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (VWA)**

<b>Estimated Required Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	60.0	60.0	60.0	60.0	60.0	60.0
Alternative PC1LT3	60.6	61.2	61.9	62.5	63.1	63.8
Alternative PC2LT4	61.2	62.5	63.8	65.1	66.4	67.7
Alternative PC3LT5	61.9	63.8	65.8	67.7	69.9	72.0
Alternative PC6LT8	63.9	67.9	72.2	76.9	81.8	87.0

**Table 83 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (BMW)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.4	43.4	43.4	43.4	43.4	43.4
Alternative PC1LT3	44.7	46.1	47.5	49.0	50.5	52.0
Alternative PC2LT4	45.2	47.0	49.0	51.0	53.2	55.4
Alternative PC3LT5	45.6	48.0	50.6	53.2	56.0	59.0
Alternative PC6LT8	47.1	51.2	55.7	60.5	65.8	71.5

**Table 84 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Ford)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	40.2	40.2	40.2	40.2	40.2	40.2
Alternative PC1LT3	41.4	42.7	44.0	45.4	46.8	48.2
Alternative PC2LT4	41.8	43.6	45.4	47.3	49.2	51.3
Alternative PC3LT5	42.3	44.5	46.8	49.3	51.9	54.6
Alternative PC6LT8	43.6	47.4	51.6	56.0	60.9	66.2

**Table 85 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (GM)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	39.3	39.3	39.3	39.3	39.3	39.3
Alternative PC1LT3	40.5	41.8	43.1	44.4	45.8	47.2
Alternative PC2LT4	40.9	42.7	44.4	46.3	48.2	50.2
Alternative PC3LT5	41.4	43.6	45.8	48.3	50.8	53.5
Alternative PC6LT8	42.7	46.4	50.5	54.9	59.6	64.8

**Table 86 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Honda)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	45.3	45.3	45.3	45.3	45.3	45.3
Alternative PC1LT3	46.7	48.2	49.7	51.2	52.8	54.4
Alternative PC2LT4	47.2	49.2	51.2	53.4	55.6	57.9
Alternative PC3LT5	47.7	50.2	52.9	55.6	58.6	61.7
Alternative PC6LT8	49.3	53.6	58.2	63.3	68.8	74.7



**Table 87 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	45.3	45.3	45.3	45.3	45.3	45.3
Alternative PC1LT3	46.7	48.1	49.6	51.1	52.7	54.3
Alternative PC2LT4	47.2	49.1	51.2	53.3	55.5	57.8
Alternative PC3LT5	47.7	50.2	52.8	55.6	58.5	61.6
Alternative PC6LT8	49.2	53.5	58.1	63.2	68.7	74.7

**Table 88 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	45.3	45.3	45.3	45.3	45.3	45.3
Alternative PC1LT3	46.7	48.2	49.6	51.2	52.8	54.4
Alternative PC2LT4	47.2	49.2	51.2	53.3	55.6	57.9
Alternative PC3LT5	47.7	50.2	52.8	55.6	58.6	61.6
Alternative PC6LT8	49.2	53.5	58.2	63.2	68.7	74.7

**Table 89 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (JLR)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.5	43.5	43.5	43.5	43.5	43.5
Alternative PC1LT3	44.9	46.2	47.7	49.2	50.7	52.2
Alternative PC2LT4	45.3	47.2	49.2	51.2	53.4	55.6
Alternative PC3LT5	45.8	48.2	50.8	53.4	56.2	59.2
Alternative PC6LT8	47.3	51.4	55.9	60.7	66.0	71.8

**Table 90 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Karma)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC1LT3	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC2LT4	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC3LT5	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC6LT8	0.0	0.0	0.0	0.0	0.0	0.0

**Table 91 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Lucid)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC1LT3	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC2LT4	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC3LT5	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC6LT8	0.0	0.0	0.0	0.0	0.0	0.0

**Table 92 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mazda)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.0	48.0	48.0	48.0	48.0	48.0
Alternative PC1LT3	49.5	51.0	52.6	54.2	55.9	57.7
Alternative PC2LT4	50.0	52.1	54.3	56.5	58.9	61.4
Alternative PC3LT5	50.6	53.2	56.0	59.0	62.1	65.3
Alternative PC6LT8	52.2	56.7	61.7	67.0	72.9	79.2

**Table 93 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.9	43.9	43.9	43.9	43.9	43.9
Alternative PC1LT3	45.2	46.6	48.1	49.5	51.1	52.7
Alternative PC2LT4	45.7	47.6	49.6	51.6	53.8	56.0
Alternative PC3LT5	46.2	48.6	51.2	53.9	56.7	59.7
Alternative PC6LT8	47.7	51.8	56.3	61.2	66.6	72.3

**Table 94 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.3	49.3	49.3	49.3	49.3	49.3
Alternative PC1LT3	50.8	52.4	54.0	55.7	57.4	59.2
Alternative PC2LT4	51.4	53.5	55.7	58.1	60.5	63.0
Alternative PC3LT5	51.9	54.6	57.5	60.5	63.7	67.1
Alternative PC6LT8	53.6	58.3	63.3	68.8	74.8	81.3



**Table 95 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Nissan)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.9	43.9	43.9	43.9	43.9	43.9
Alternative PC1LT3	45.2	46.6	48.1	49.6	51.1	52.7
Alternative PC2LT4	45.7	47.6	49.6	51.7	53.8	56.1
Alternative PC3LT5	46.2	48.6	51.2	53.9	56.7	59.7
Alternative PC6LT8	47.7	51.8	56.4	61.3	66.6	72.4

**Table 96 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Stellantis)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	40.9	40.9	40.9	40.9	40.9	40.9
Alternative PC1LT3	42.1	43.4	44.8	46.2	47.6	49.1
Alternative PC2LT4	42.6	44.4	46.2	48.1	50.1	52.2
Alternative PC3LT5	43.0	45.3	47.7	50.2	52.8	55.6
Alternative PC6LT8	44.4	48.3	52.5	57.1	62.0	67.4

**Table 97 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Subaru)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.6	48.6	48.6	48.6	48.6	48.6
Alternative PC1LT3	50.1	51.7	53.3	54.9	56.6	58.4
Alternative PC2LT4	50.6	52.7	54.9	57.2	59.6	62.1
Alternative PC3LT5	51.2	53.9	56.7	59.7	62.8	66.1
Alternative PC6LT8	52.8	57.4	62.4	67.8	73.8	80.2

**Table 98 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Tesla)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	44.5	44.5	44.5	44.5	44.5	44.5
Alternative PC1LT3	45.9	47.3	48.8	50.3	51.8	53.4
Alternative PC2LT4	46.4	48.3	50.3	52.4	54.6	56.9
Alternative PC3LT5	46.8	49.3	51.9	54.6	57.5	60.5
Alternative PC6LT8	48.4	52.6	57.1	62.1	67.5	73.4

**Table 99 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Toyota)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	43.8	43.8	43.8	43.8	43.8	43.8
Alternative PC1LT3	45.1	46.5	48.0	49.5	51.0	52.6
Alternative PC2LT4	45.6	47.5	49.5	51.6	53.7	55.9
Alternative PC3LT5	46.1	48.5	51.1	53.8	56.6	59.6
Alternative PC6LT8	47.6	51.7	56.2	61.1	66.4	72.2

**Table 100 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Volvo)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	44.5	44.5	44.5	44.5	44.5	44.5
Alternative PC1LT3	45.9	47.3	48.7	50.2	51.8	53.4
Alternative PC2LT4	46.3	48.3	50.3	52.4	54.6	56.8
Alternative PC3LT5	46.8	49.3	51.9	54.6	57.5	60.5
Alternative PC6LT8	48.4	52.6	57.1	62.1	67.5	73.4

**Table 101 - Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (VWA)**

<b>Estimated Required Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	45.3	45.3	45.3	45.3	45.3	45.3
Alternative PC1LT3	46.7	48.2	49.7	51.2	52.8	54.4
Alternative PC2LT4	47.2	49.2	51.2	53.4	55.6	57.9
Alternative PC3LT5	47.7	50.2	52.9	55.7	58.6	61.7
Alternative PC6LT8	49.3	53.6	58.2	63.3	68.8	74.8

## Estimated Achieved CAFE Levels

**Table 102 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Total)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	46.4	48.8	51.8	54.7	58.0	61.3
Alternative PC1LT3	47.7	50.3	53.5	56.0	59.6	63.1
Alternative PC2LT4	48.1	50.9	54.3	56.9	60.5	64.3
Alternative PC3LT5	48.7	51.7	55.3	58.9	63.1	66.9
Alternative PC6LT8	49.3	54.2	58.9	65.1	73.0	81.5



**Table 103 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Total)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	61.6	64.6	69.7	76.2	81.2	92.7
Alternative PC1LT3	62.6	66.0	71.6	77.8	83.0	96.4
Alternative PC2LT4	62.5	66.3	71.5	78.0	83.0	96.4
Alternative PC3LT5	63.3	67.6	72.5	79.2	85.3	97.9
Alternative PC6LT8	64.0	72.2	78.7	88.2	96.2	114.8

**Table 104 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Total)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.5	43.8	46.4	48.3	51.2	52.9
Alternative PC1LT3	42.9	45.3	48.0	49.6	52.6	54.3
Alternative PC2LT4	43.4	46.0	48.9	50.6	53.7	55.6
Alternative PC3LT5	43.9	46.7	49.9	52.7	56.3	58.2
Alternative PC6LT8	44.6	48.6	52.9	58.1	65.6	71.6

**Table 105 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (BMW)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	46.6	49.3	50.4	52.4	53.1	66.1
Alternative PC1LT3	46.6	49.3	50.7	52.8	53.5	67.2
Alternative PC2LT4	46.6	49.3	50.7	52.8	53.5	68.6
Alternative PC3LT5	46.6	49.3	50.7	52.8	53.5	66.4
Alternative PC6LT8	46.6	49.7	51.1	53.4	54.1	75.1

**Table 106 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Ford)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	40.6	44.2	47.6	47.7	47.7	48.3
Alternative PC1LT3	41.8	44.9	48.5	48.5	48.5	49.0
Alternative PC2LT4	42.7	46.3	50.4	50.5	50.5	51.0
Alternative PC3LT5	43.1	46.5	53.4	53.4	53.5	54.4
Alternative PC6LT8	45.6	55.3	67.5	67.6	67.7	69.0

**Table 107 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (GM)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	39.8	39.8	41.4	42.3	49.3	50.7
Alternative PC1LT3	43.5	43.5	45.3	46.1	54.2	56.0
Alternative PC2LT4	43.5	43.7	45.3	46.1	54.4	56.2
Alternative PC3LT5	44.8	45.2	47.2	48.2	57.2	58.2
Alternative PC6LT8	45.3	45.7	47.7	49.0	65.1	71.2

**Table 108 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Honda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.4	57.9	59.5	59.4	61.3	66.9
Alternative PC1LT3	54.7	58.2	59.8	59.8	61.8	70.5
Alternative PC2LT4	54.9	58.5	60.2	60.2	62.2	71.4
Alternative PC3LT5	56.7	60.5	60.4	67.3	69.7	77.0
Alternative PC6LT8	56.7	63.8	66.2	72.1	75.0	90.4

**Table 109 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.7	56.8	56.6	56.6	63.4	71.4
Alternative PC1LT3	50.3	58.3	58.3	58.3	65.5	74.1
Alternative PC2LT4	51.2	60.7	60.7	60.7	67.7	77.2
Alternative PC3LT5	51.2	59.9	59.9	59.9	67.8	77.3
Alternative PC6LT8	51.2	70.2	70.1	70.2	83.1	99.1

**Table 110 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.4	49.4	57.4	57.6	67.1	75.0
Alternative PC1LT3	49.4	49.3	58.2	58.5	70.0	78.6
Alternative PC2LT4	49.4	49.4	58.9	60.2	72.8	82.2
Alternative PC3LT5	49.4	49.4	61.6	62.9	77.1	87.6
Alternative PC6LT8	49.4	49.3	65.2	67.3	86.0	102.9



**Table 111 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (JLR)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.8	41.8	41.8	44.0	46.7	52.6
Alternative PC1LT3	41.8	41.8	41.8	44.1	49.4	51.7
Alternative PC2LT4	41.8	41.8	41.8	44.1	52.4	55.7
Alternative PC3LT5	41.8	41.8	41.8	44.1	55.0	59.7
Alternative PC6LT8	41.8	41.8	41.8	44.1	55.0	77.3

**Table 112 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Karma)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC1LT3	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC2LT4	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC3LT5	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC6LT8	138.6	138.6	138.6	138.6	138.6	138.6

**Table 113 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Lucid)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC1LT3	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC2LT4	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC3LT5	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC6LT8	166.5	166.5	166.5	166.5	166.5	170.6

**Table 114 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mazda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	50.4	50.4	67.2	78.3	78.4	78.2
Alternative PC1LT3	50.4	50.4	67.4	78.5	78.6	78.6
Alternative PC2LT4	51.0	51.0	68.4	79.9	80.0	80.0
Alternative PC3LT5	51.2	51.2	68.8	80.4	80.5	80.5
Alternative PC6LT8	59.4	59.4	66.9	78.5	78.5	79.2

**Table 115 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.2	56.0	56.0	71.1	75.1	77.9
Alternative PC1LT3	49.1	56.0	56.7	71.9	75.9	78.7
Alternative PC2LT4	49.7	58.4	59.1	76.1	80.5	83.6
Alternative PC3LT5	50.7	58.1	58.8	75.3	79.7	82.8
Alternative PC6LT8	50.7	59.1	62.4	84.0	92.0	96.8

**Table 116 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	55.2	55.3	55.3	55.3	74.4	74.5
Alternative PC1LT3	55.2	55.3	55.3	55.3	78.1	78.2
Alternative PC2LT4	55.2	55.3	55.3	55.3	65.1	65.6
Alternative PC3LT5	55.2	55.3	55.3	55.3	86.1	87.0
Alternative PC6LT8	55.2	55.3	55.3	55.3	89.5	94.4

**Table 117 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Nissan)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	47.9	56.2	57.8	60.9	61.4	69.3
Alternative PC1LT3	48.2	56.5	58.1	61.3	61.8	69.7
Alternative PC2LT4	48.2	56.9	58.6	61.9	62.4	70.6
Alternative PC3LT5	48.2	58.8	59.3	62.9	64.7	73.5
Alternative PC6LT8	48.2	58.3	58.8	75.3	76.1	88.8

**Table 118 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Stellantis)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	39.4	39.7	45.2	48.7	49.4	50.7
Alternative PC1LT3	42.5	42.9	49.1	49.3	50.0	51.3
Alternative PC2LT4	43.9	44.3	50.7	50.9	51.8	53.2
Alternative PC3LT5	45.0	45.3	51.8	53.5	54.3	56.5
Alternative PC6LT8	45.8	46.2	54.0	62.4	63.7	71.6



**Table 119 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Subaru)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	50.9	61.2	63.4	64.7	64.4	64.9
Alternative PC1LT3	50.4	61.7	63.9	65.2	65.2	65.8
Alternative PC2LT4	50.4	61.7	63.9	65.2	65.2	65.8
Alternative PC3LT5	50.4	61.7	64.2	66.8	66.9	67.5
Alternative PC6LT8	50.4	61.7	69.7	81.6	82.1	84.0

**Table 120 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Tesla)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	160.6	160.6	160.6	160.6	160.6	160.6
Alternative PC1LT3	160.6	160.6	160.6	160.6	160.6	160.6
Alternative PC2LT4	160.6	160.6	160.6	160.6	160.6	160.6
Alternative PC3LT5	160.6	160.6	160.6	160.6	160.6	160.6
Alternative PC6LT8	160.6	160.6	160.6	160.6	160.6	160.6

**Table 121 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Toyota)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.2	48.6	52.4	59.3	63.2	66.0
Alternative PC1LT3	48.2	48.7	52.6	59.3	63.3	65.3
Alternative PC2LT4	48.2	48.7	52.6	59.3	63.2	65.3
Alternative PC3LT5	48.2	49.6	52.8	59.6	63.7	66.2
Alternative PC6LT8	48.2	50.7	53.8	60.2	72.2	79.3

**Table 122 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Volvo)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	46.1	46.0	46.1	62.8	64.0	81.8
Alternative PC1LT3	46.6	46.6	47.0	64.3	65.5	83.1
Alternative PC2LT4	46.6	46.6	47.0	64.4	65.6	83.4
Alternative PC3LT5	46.6	46.6	47.0	64.8	66.0	84.5
Alternative PC6LT8	46.6	46.5	47.0	65.1	66.3	77.7

**Table 123 - Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (VWA)**

<b>Estimated Achieved Average Fuel Economy (mpg), Total Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	47.0	50.9	50.9	59.9	67.2	75.1
Alternative PC1LT3	47.3	51.4	51.5	62.5	70.2	78.9
Alternative PC2LT4	47.4	51.4	51.5	63.5	71.5	80.5
Alternative PC3LT5	47.4	51.4	51.5	63.6	71.5	80.6
Alternative PC6LT8	47.3	54.7	54.9	77.9	90.4	105.4

**Table 124 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (BMW)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	56.7	66.4	70.7	77.6	79.2	81.1
Alternative PC1LT3	56.7	66.4	70.7	77.6	79.3	81.1
Alternative PC2LT4	56.7	66.4	70.7	77.6	79.3	81.1
Alternative PC3LT5	56.7	66.4	70.7	77.6	79.3	81.1
Alternative PC6LT8	56.7	68.1	72.7	80.0	81.8	102.2

**Table 125 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Ford)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	60.9	60.9	60.9	61.2	61.2	64.8
Alternative PC1LT3	85.8	85.8	85.8	86.3	86.3	86.7
Alternative PC2LT4	66.4	66.4	66.4	66.7	66.7	66.7
Alternative PC3LT5	66.8	66.8	66.8	67.1	68.2	72.6
Alternative PC6LT8	97.1	97.1	97.1	97.9	97.9	107.5

**Table 126 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (GM)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.8	58.2	79.9	86.3	99.2	102.0
Alternative PC1LT3	57.9	58.3	79.0	78.9	89.9	92.6
Alternative PC2LT4	57.9	58.3	77.7	77.7	88.6	91.2
Alternative PC3LT5	57.9	58.3	80.4	80.4	91.8	93.6
Alternative PC6LT8	57.9	58.3	80.5	84.2	96.7	98.7



**Table 127 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Honda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	56.2	64.4	68.9	68.7	69.9	87.5
Alternative PC1LT3	56.8	65.2	69.8	69.8	71.0	101.5
Alternative PC2LT4	57.4	66.1	70.8	70.8	72.0	101.9
Alternative PC3LT5	61.6	71.6	71.6	71.6	72.8	92.1
Alternative PC6LT8	61.6	82.1	84.3	84.3	86.1	109.6

**Table 128 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	57.9	58.2	58.0	58.0	59.3	73.3
Alternative PC1LT3	58.6	60.5	60.5	60.5	62.0	77.5
Alternative PC2LT4	61.0	65.4	65.4	65.4	65.7	84.1
Alternative PC3LT5	61.0	66.5	66.5	66.5	68.9	89.3
Alternative PC6LT8	61.0	77.0	77.0	77.0	83.5	118.5

**Table 129 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	58.2	58.2	71.9	72.5	94.2	131.9
Alternative PC1LT3	58.3	58.3	71.7	72.6	94.7	132.8
Alternative PC2LT4	58.3	58.3	69.5	72.9	94.6	132.6
Alternative PC3LT5	58.3	58.3	71.3	74.8	98.9	141.4
Alternative PC6LT8	58.3	58.3	76.4	82.1	108.2	159.8

**Table 130 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (JLR)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	61.8	61.8	61.8	62.1	62.0	62.1
Alternative PC1LT3	61.8	61.9	61.9	62.3	62.2	62.5
Alternative PC2LT4	61.8	61.8	61.8	64.4	64.3	64.6
Alternative PC3LT5	61.8	61.8	61.8	64.4	64.3	64.7
Alternative PC6LT8	61.8	61.8	61.8	64.3	64.3	64.6

**Table 131 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Karma)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC1LT3	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC2LT4	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC3LT5	138.6	138.6	138.6	138.6	138.6	138.6
Alternative PC6LT8	138.6	138.6	138.6	138.6	138.6	138.6

**Table 132 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Lucid)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC1LT3	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC2LT4	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC3LT5	166.5	166.5	166.5	166.5	166.5	170.6
Alternative PC6LT8	166.5	166.5	166.5	166.5	166.5	170.6

**Table 133 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mazda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	60.2	60.2	128.8	128.8	128.8	128.9
Alternative PC1LT3	60.7	60.9	129.9	129.9	129.9	130.1
Alternative PC2LT4	60.7	61.2	133.3	133.3	133.3	133.4
Alternative PC3LT5	60.7	61.2	133.3	133.3	133.3	133.5
Alternative PC6LT8	60.7	61.2	91.4	91.4	91.4	91.5

**Table 134 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	56.5	56.5	57.1	60.8	68.0	73.5
Alternative PC1LT3	57.5	57.5	59.2	63.0	70.7	76.6
Alternative PC2LT4	59.2	59.2	60.9	65.3	73.5	79.8
Alternative PC3LT5	61.4	61.4	63.4	67.9	76.7	83.7
Alternative PC6LT8	61.4	61.4	70.6	76.6	94.0	106.5



**Table 135 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	63.9	64.2	64.2	64.2	69.6	69.9
Alternative PC1LT3	63.9	64.2	64.2	64.2	69.7	70.0
Alternative PC2LT4	63.9	64.2	64.2	64.2	69.7	70.8
Alternative PC3LT5	63.9	64.2	64.2	64.2	75.8	77.1
Alternative PC6LT8	63.9	64.2	64.2	64.3	89.6	99.8

**Table 136 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Nissan)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	58.7	58.7	58.7	62.6	63.5	81.9
Alternative PC1LT3	59.4	59.4	59.4	63.3	64.3	83.2
Alternative PC2LT4	59.4	60.0	60.0	64.3	65.3	85.2
Alternative PC3LT5	59.4	62.3	62.3	67.4	71.3	95.7
Alternative PC6LT8	59.4	63.1	63.1	78.8	80.3	113.0

**Table 137 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Stellantis)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	54.3	54.3	57.3	61.5	73.5	80.2
Alternative PC1LT3	54.3	54.9	61.1	65.0	77.4	84.9
Alternative PC2LT4	54.3	54.9	58.0	61.4	74.6	81.4
Alternative PC3LT5	54.3	54.9	61.1	65.0	77.3	84.7
Alternative PC6LT8	54.3	54.9	62.1	70.9	89.0	98.8

**Table 138 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Subaru)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	62.5	82.5	129.6	169.0	168.7	203.1
Alternative PC1LT3	62.0	82.5	129.6	169.0	169.0	203.1
Alternative PC2LT4	62.0	82.5	129.6	169.1	169.0	203.1
Alternative PC3LT5	62.0	82.5	129.6	169.0	169.0	203.1
Alternative PC6LT8	62.0	82.5	129.6	168.6	168.6	202.3

**Table 139 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Tesla)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	161.0	161.0	161.0	161.0	161.0	161.0
Alternative PC1LT3	161.0	161.0	161.0	161.0	161.0	161.0
Alternative PC2LT4	161.0	161.0	161.0	161.0	161.0	161.0
Alternative PC3LT5	161.0	161.0	161.0	161.0	161.0	161.0
Alternative PC6LT8	161.0	161.0	161.0	161.0	161.0	161.0

**Table 140 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Toyota)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	58.1	58.5	62.3	88.7	94.3	96.8
Alternative PC1LT3	58.5	59.3	63.1	89.2	94.8	96.3
Alternative PC2LT4	58.5	59.3	63.1	89.2	94.8	96.3
Alternative PC3LT5	58.5	59.3	62.1	87.4	92.9	94.3
Alternative PC6LT8	58.5	61.7	64.9	88.0	94.9	100.8

**Table 141 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Volvo)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	63.5	63.5	64.2	65.2	67.8	67.8
Alternative PC1LT3	63.4	63.4	64.2	65.2	67.8	67.8
Alternative PC2LT4	63.4	63.4	64.2	65.7	68.2	68.6
Alternative PC3LT5	63.5	63.4	64.2	67.2	69.8	71.5
Alternative PC6LT8	63.5	63.4	64.2	67.2	69.8	94.6

**Table 142 - Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (VWA)**

<b>Estimated Achieved Average Fuel Economy (mpg), Passenger Car Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	61.3	85.0	85.0	85.2	97.8	97.9
Alternative PC1LT3	61.3	85.0	85.2	85.4	98.2	98.3
Alternative PC2LT4	61.3	85.0	85.2	85.4	98.2	98.2
Alternative PC3LT5	61.3	85.0	85.2	85.4	98.1	98.2
Alternative PC6LT8	61.3	120.3	120.7	121.1	148.1	148.6



**Table 143 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (BMW)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	40.1	40.1	40.1	40.6	40.9	56.5
Alternative PC1LT3	40.1	40.1	40.6	41.1	41.4	58.2
Alternative PC2LT4	40.1	40.1	40.6	41.1	41.4	60.2
Alternative PC3LT5	40.1	40.1	40.6	41.1	41.4	57.0
Alternative PC6LT8	40.1	40.1	40.6	41.1	41.4	60.5

**Table 144 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Ford)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	39.3	43.0	46.6	46.6	46.6	47.1
Alternative PC1LT3	39.7	42.9	46.5	46.5	46.5	47.0
Alternative PC2LT4	41.2	45.0	49.3	49.3	49.3	49.8
Alternative PC3LT5	41.7	45.2	52.4	52.4	52.4	53.1
Alternative PC6LT8	43.3	53.0	65.6	65.6	65.6	66.6

**Table 145 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (GM)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	36.9	36.9	36.9	37.6	43.7	45.0
Alternative PC1LT3	40.9	40.9	41.0	41.8	49.3	50.9
Alternative PC2LT4	40.9	41.1	41.1	41.9	49.6	51.3
Alternative PC3LT5	42.4	42.8	42.8	43.8	52.2	53.2
Alternative PC6LT8	42.9	43.3	43.4	44.4	60.1	66.5

**Table 146 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Honda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	52.9	53.1	53.1	53.0	55.2	55.2
Alternative PC1LT3	52.9	53.1	53.1	53.1	55.3	55.3
Alternative PC2LT4	52.9	53.1	53.1	53.2	55.4	56.3
Alternative PC3LT5	52.9	53.1	53.1	64.0	67.2	67.2
Alternative PC6LT8	52.9	53.4	55.7	63.9	67.3	78.0

**Table 147 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	42.5	55.3	55.1	55.1	69.1	69.1
Alternative PC1LT3	42.9	56.0	56.0	56.0	70.4	70.4
Alternative PC2LT4	42.9	56.0	56.0	56.0	70.2	70.2
Alternative PC3LT5	42.9	53.6	53.6	53.6	66.6	66.6
Alternative PC6LT8	42.9	63.5	63.5	63.5	82.6	82.6

**Table 148 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	42.6	42.6	47.5	47.5	51.4	51.4
Alternative PC1LT3	42.6	42.6	48.7	48.7	54.9	54.9
Alternative PC2LT4	42.6	42.6	51.0	51.0	58.6	58.6
Alternative PC3LT5	42.6	42.6	54.0	54.0	62.5	62.5
Alternative PC6LT8	42.6	42.6	56.7	56.7	70.7	74.6

**Table 149 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (JLR)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.5	41.5	41.5	43.8	46.4	52.4
Alternative PC1LT3	41.5	41.5	41.5	43.8	49.2	51.5
Alternative PC2LT4	41.5	41.5	41.5	43.8	52.2	55.6
Alternative PC3LT5	41.5	41.5	41.5	43.8	54.9	59.6
Alternative PC6LT8	41.5	41.5	41.5	43.8	54.9	77.7

**Table 150 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Karma)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC1LT3	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC2LT4	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC3LT5	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC6LT8	0.0	0.0	0.0	0.0	0.0	0.0



**Table 151 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Lucid)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC1LT3	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC2LT4	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC3LT5	0.0	0.0	0.0	0.0	0.0	0.0
Alternative PC6LT8	0.0	0.0	0.0	0.0	0.0	0.0

**Table 152 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mazda)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.3	49.3	63.1	74.3	74.3	74.1
Alternative PC1LT3	49.3	49.3	63.2	74.5	74.5	74.4
Alternative PC2LT4	49.8	49.8	64.1	75.7	75.7	75.7
Alternative PC3LT5	50.1	50.1	64.5	76.3	76.3	76.3
Alternative PC6LT8	59.2	59.2	64.6	77.0	77.0	77.7

**Table 153 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	44.8	55.7	55.1	81.5	81.5	81.5
Alternative PC1LT3	44.3	54.9	54.9	80.4	80.4	80.4
Alternative PC2LT4	44.3	57.8	57.8	86.8	86.8	86.8
Alternative PC3LT5	44.8	55.7	55.7	82.1	82.1	82.1
Alternative PC6LT8	44.8	57.4	57.4	90.5	90.5	90.5

**Table 154 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	48.7	48.7	48.7	48.7	79.7	79.7
Alternative PC1LT3	48.8	48.8	48.8	48.8	88.3	88.4
Alternative PC2LT4	48.8	48.8	48.8	48.8	61.2	61.3
Alternative PC3LT5	48.8	48.8	48.8	48.8	99.3	99.5
Alternative PC6LT8	48.8	48.8	48.8	48.8	89.5	89.6

**Table 155 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Nissan)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	40.0	53.7	56.8	59.3	59.3	59.3
Alternative PC1LT3	40.0	53.7	56.8	59.3	59.3	59.3
Alternative PC2LT4	40.0	53.9	57.1	59.5	59.5	59.6
Alternative PC3LT5	40.0	55.4	56.4	58.7	58.7	58.8
Alternative PC6LT8	40.0	53.9	54.8	72.0	72.0	72.0

**Table 156 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Stellantis)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	38.1	38.4	44.1	47.5	47.5	48.5
Alternative PC1LT3	41.4	41.8	47.9	47.9	47.9	48.9
Alternative PC2LT4	42.9	43.3	49.9	49.9	49.9	51.0
Alternative PC3LT5	44.0	44.4	50.8	52.4	52.4	54.3
Alternative PC6LT8	45.0	45.4	53.2	61.5	61.5	69.2

**Table 157 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Subaru)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	49.5	59.0	59.1	59.4	59.0	59.0
Alternative PC1LT3	49.1	59.5	59.5	59.9	59.8	59.8
Alternative PC2LT4	49.1	59.5	59.5	59.9	59.8	59.8
Alternative PC3LT5	49.1	59.5	59.9	61.4	61.4	61.4
Alternative PC6LT8	49.1	59.5	65.3	75.9	76.3	77.3

**Table 158 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Tesla)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	154.4	154.4	154.4	154.4	154.4	154.4
Alternative PC1LT3	154.4	154.4	154.4	154.4	154.4	154.4
Alternative PC2LT4	154.4	154.4	154.4	154.4	154.4	154.4
Alternative PC3LT5	154.4	154.4	154.4	154.4	154.4	154.4
Alternative PC6LT8	154.4	154.4	154.4	154.4	154.4	154.4



**Table 159 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Toyota)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	44.1	44.5	48.4	50.3	53.5	56.1
Alternative PC1LT3	44.0	44.5	48.4	50.3	53.5	55.5
Alternative PC2LT4	44.0	44.5	48.4	50.3	53.5	55.5
Alternative PC3LT5	44.0	45.6	48.9	50.9	54.4	56.9
Alternative PC6LT8	44.0	46.3	49.3	51.4	63.8	71.0

**Table 160 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Volvo)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.9	41.9	41.9	62.0	62.7	88.5
Alternative PC1LT3	42.5	42.5	42.9	64.0	64.7	90.6
Alternative PC2LT4	42.5	42.5	42.9	64.0	64.7	90.6
Alternative PC3LT5	42.5	42.5	42.9	64.0	64.7	90.6
Alternative PC6LT8	42.5	42.5	42.9	64.4	65.1	72.9

**Table 161 - Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (VWA)**

<b>Estimated Achieved Average Fuel Economy (mpg), Light Truck Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	41.7	41.8	41.9	51.6	57.4	66.6
Alternative PC1LT3	42.1	42.4	42.6	54.6	60.8	71.2
Alternative PC2LT4	42.1	42.4	42.6	55.8	62.3	73.3
Alternative PC3LT5	42.1	42.4	42.6	55.9	62.4	73.4
Alternative PC6LT8	42.1	42.4	42.6	65.4	74.5	90.8

## CAFE Cost per Vehicle

**Table 162 - MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Total Fleet by Alternative**

<b>MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Total Fleet by Alternative</b>			
	Avg Required (mpg)	Avg Achieved (mpg)	Avg Reg. Cost (\$)
No Action Alternative (Baseline)	46.7	61.3	2734
Alternative PC1LT3	54.3	63.1	2891
Alternative PC2LT4	57.7	64.3	3032
Alternative PC3LT5	61.5	66.9	3258
Alternative PC6LT8	74.4	81.5	4368

**Table 163 - MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Passenger Car Fleet by Alternative**

<b>MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Passenger Car Fleet by Alternative</b>			
	Avg Required (mpg)	Avg Achieved (mpg)	Avg Reg. Cost (\$)
No Action Alternative (Baseline)	58.8	92.7	2183
Alternative PC1LT3	62.4	96.4	2392
Alternative PC2LT4	66.4	96.4	2461
Alternative PC3LT5	70.6	97.9	2593
Alternative PC6LT8	85.2	114.8	3331

**Table 164 - MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Light Truck Fleet by Alternative**

<b>MY 2032 Required and Achieved CAFE Levels (mpg), and Per-Vehicle Regulatory Costs (\$) for Light Truck Fleet by Alternative</b>			
	Avg Required (mpg)	Avg Achieved (mpg)	Avg Reg. Cost (\$)
No Action Alternative (Baseline)	42.6	52.9	2995
Alternative PC1LT3	51.2	54.3	3125
Alternative PC2LT4	54.4	55.6	3301
Alternative PC3LT5	58.0	58.2	3570
Alternative PC6LT8	70.3	71.6	4858

## Various Impacts of Alternatives

**Table 165 - Impacts for No Action Alternative (Baseline), Average SCC**

<b>Impacts for No Action Alternative (Baseline), Average SCC</b>			
Category	Passenger Car	Light Truck	Combined Fleet
<b>Fuel Economy</b>			
Required Fuel Economy for MY 2032(mpg)	58.8	42.6	46.7
Achieved Fuel Economy for MY 2032 (mpg)	92.7	52.9	61.3
Achieved Fuel Economy for MY 2020 - for reference (mpg)	43.7	30.1	34.1
<b>Average MY 2032 Vehicle - Incremental to Alternative 0 (Baseline)</b>			
Per Vehicle Price Increase (dollars)	0	0	0
Lifetime Fuel Cost (per vehicle), 3% Discount Rate (dollars)	0	0	0
Lifetime Fuel Cost (per vehicle), 7% Discount Rate (dollars)	0	0	0
Payback Period Relative to MY 2020, 3% Discount Rate (years)	0.0	0.0	0.0
Payback Period Relative to MY 2020, 7% Discount Rate (years)	0.0	0.0	0.0
<b>Lifetime of Vehicles Through 2032 - Incremental to Alternative 0 (Baseline)</b>			
Total Lifetime Fuel Volume (billion gallons)	0	0	0
Total Lifetime CO2 Volume (million metric tons)	0	0	0
Fatalities (Including Rebound Miles)	0	0	0
Fatalities (Excluding Rebound Miles)	0	0	0
Total Technology Costs, 3% Discount Rate (\$b)	0.0	0.0	0.0
Total Technology Costs, 7% Discount Rate (\$b)	0.0	0.0	0.0
Total Net Societal Benefits, 3% Discount Rate (\$b)	0.0	0.0	0.0
Total Net Societal Benefits, 7% Discount Rate (\$b)	0.0	0.0	0.0

**Table 166 - Impacts for Alternative PC1LT3, Average SCC**

<b>Impacts for Alternative PC1LT3, Average SCC</b>			
Category	Passenger Car	Light Truck	Combined Fleet
<b>Fuel Economy</b>			
Required Fuel Economy for MY 2032(mpg)	62.4	51.2	54.3
Achieved Fuel Economy for MY 2032 (mpg)	96.4	54.3	63.1
Achieved Fuel Economy for MY 2020 - for reference (mpg)	43.7	30.1	34.1
<b>Average MY 2032 Vehicle - Incremental to Alternative 0 (Baseline)</b>			
Per Vehicle Price Increase (dollars)	210	131	157
Lifetime Fuel Cost (per vehicle), 3% Discount Rate (dollars)	-265	-279	-269
Lifetime Fuel Cost (per vehicle), 7% Discount Rate (dollars)	-206	-220	-211
Payback Period Relative to MY 2020, 3% Discount Rate (years)	0.0	0.0	0.0
Payback Period Relative to MY 2020, 7% Discount Rate (years)	0.0	0.0	0.0
<b>Lifetime of Vehicles Through 2032 - Incremental to Alternative 0 (Baseline)</b>			
Total Lifetime Fuel Volume (billion gallons)	-3	-10	-13
Total Lifetime CO2 Volume (million metric tons)	-178	804	625
Fatalities (Including Rebound Miles)	-63	167	103
Fatalities (Excluding Rebound Miles)	-76	91	16
Total Technology Costs, 3% Discount Rate (\$b)	4.2	9.3	13.4
Total Technology Costs, 7% Discount Rate (\$b)	3.0	6.9	9.9
Total Net Societal Benefits, 3% Discount Rate (\$b)	2.8	-1.3	1.6
Total Net Societal Benefits, 7% Discount Rate (\$b)	1.0	-1.8	-0.8



**Table 167 - Impacts for Alternative PC2LT4, Average SCC**

<b>Impacts for Alternative PC2LT4, Average SCC</b>			
Category	Passenger Car	Light Truck	Combined Fleet
<b>Fuel Economy</b>			
Required Fuel Economy for MY 2032(mpg)	66.4	54.4	57.7
Achieved Fuel Economy for MY 2032 (mpg)	96.4	55.6	64.3
Achieved Fuel Economy for MY 2020 - for reference (mpg)	43.7	30.1	34.1
<b>Average MY 2032 Vehicle - Incremental to Alternative 0 (Baseline)</b>			
Per Vehicle Price Increase (dollars)	279	306	298
Lifetime Fuel Cost (per vehicle), 3% Discount Rate (dollars)	-269	-549	-453
Lifetime Fuel Cost (per vehicle), 7% Discount Rate (dollars)	-209	-429	-354
Payback Period Relative to MY 2020, 3% Discount Rate (years)	0.0	0.0	0.0
Payback Period Relative to MY 2020, 7% Discount Rate (years)	1.0	0.0	0.3
<b>Lifetime of Vehicles Through 2032 - Incremental to Alternative 0 (Baseline)</b>			
Total Lifetime Fuel Volume (billion gallons)	-3	-16	-19
Total Lifetime CO2 Volume (million metric tons)	-184	875	691
Fatalities (Including Rebound Miles)	-50	205	155
Fatalities (Excluding Rebound Miles)	-66	95	29
Total Technology Costs, 3% Discount Rate (\$b)	5.3	17.7	23.0
Total Technology Costs, 7% Discount Rate (\$b)	3.8	13.0	16.8
Total Net Societal Benefits, 3% Discount Rate (\$b)	1.4	-2.1	-0.7
Total Net Societal Benefits, 7% Discount Rate (\$b)	-0.1	-3.3	-3.4

**Table 168 - Impacts for Alternative PC3LT5, Average SCC**

<b>Impacts for Alternative PC3LT5, Average SCC</b>			
Category	Passenger Car	Light Truck	Combined Fleet
<b>Fuel Economy</b>			
Required Fuel Economy for MY 2032(mpg)	70.6	58.0	61.5
Achieved Fuel Economy for MY 2032 (mpg)	97.9	58.2	66.9
Achieved Fuel Economy for MY 2020 - for reference (mpg)	43.7	30.1	34.1
<b>Average MY 2032 Vehicle - Incremental to Alternative 0 (Baseline)</b>			
Per Vehicle Price Increase (dollars)	410	575	523
Lifetime Fuel Cost (per vehicle), 3% Discount Rate (dollars)	-380	-1,063	-837
Lifetime Fuel Cost (per vehicle), 7% Discount Rate (dollars)	-295	-827	-651
Payback Period Relative to MY 2020, 3% Discount Rate (years)	0.0	1.0	0.7
Payback Period Relative to MY 2020, 7% Discount Rate (years)	1.0	0.0	0.3
<b>Lifetime of Vehicles Through 2032 - Incremental to Alternative 0 (Baseline)</b>			
Total Lifetime Fuel Volume (billion gallons)	-5	-27	-31
Total Lifetime CO2 Volume (million metric tons)	-125	1,222	1,097
Fatalities (Including Rebound Miles)	-13	242	229
Fatalities (Excluding Rebound Miles)	-35	77	42
Total Technology Costs, 3% Discount Rate (\$b)	7.9	27.7	35.6
Total Technology Costs, 7% Discount Rate (\$b)	5.7	20.1	25.8
Total Net Societal Benefits, 3% Discount Rate (\$b)	-0.9	2.8	1.9
Total Net Societal Benefits, 7% Discount Rate (\$b)	-1.8	-1.8	-3.6

**Table 169 - Impacts for Alternative PC6LT8, Average SCC**

<b>Impacts for Alternative PC6LT8, Average SCC</b>			
Category	Passenger Car	Light Truck	Combined Fleet
<b>Fuel Economy</b>			
Required Fuel Economy for MY 2032(mpg)	85.2	70.3	74.4
Achieved Fuel Economy for MY 2032 (mpg)	114.8	71.6	81.5
Achieved Fuel Economy for MY 2020 - for reference (mpg)	43.7	30.1	34.1
<b>Average MY 2032 Vehicle - Incremental to Alternative 0 (Baseline)</b>			
Per Vehicle Price Increase (dollars)	1,148	1,864	1,634
Lifetime Fuel Cost (per vehicle), 3% Discount Rate (dollars)	-1,325	-3,198	-2,598
Lifetime Fuel Cost (per vehicle), 7% Discount Rate (dollars)	-1,032	-2,469	-2,009
Payback Period Relative to MY 2020, 3% Discount Rate (years)	1.0	1.0	1.0
Payback Period Relative to MY 2020, 7% Discount Rate (years)	2.0	1.0	1.3
<b>Lifetime of Vehicles Through 2032 - Incremental to Alternative 0 (Baseline)</b>			
Total Lifetime Fuel Volume (billion gallons)	-13	-56	-69
Total Lifetime CO2 Volume (million metric tons)	-230	2,195	1,965
Fatalities (Including Rebound Miles)	66	365	431
Fatalities (Excluding Rebound Miles)	9	82	91
Total Technology Costs, 3% Discount Rate (\$b)	21.9	61.5	83.4
Total Technology Costs, 7% Discount Rate (\$b)	15.8	43.9	59.6
Total Net Societal Benefits, 3% Discount Rate (\$b)	-6.8	9.5	2.6
Total Net Societal Benefits, 7% Discount Rate (\$b)	-7.3	-2.6	-9.9

## Required and Achieved CAFE Levels, Baseline vs Preferred Alternative

**Table Error! No text of specified style in document.170 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)												
	BMW				Ford				GM			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	37.6	32.9	37.6	32.9	31.4	29.0	31.4	29.0	32.5	29.1	32.5	29.1
2023	37.9	34.8	37.9	34.8	31.8	30.1	31.8	30.1	32.9	29.0	32.9	29.0
2024	41.0	38.0	41.0	38.0	34.3	33.5	34.3	33.5	35.2	33.7	35.2	33.7
2025	44.4	41.0	44.4	41.0	37.2	34.3	37.2	34.3	38.2	36.7	38.2	36.7
2026	49.3	46.7	49.3	46.7	41.4	36.4	41.4	36.4	42.3	38.1	42.3	38.1
2027	49.2	46.6	50.8	46.6	41.4	40.6	42.9	42.7	42.2	39.8	43.8	43.5
2028	49.2	49.3	52.4	49.3	41.3	44.2	44.7	46.3	42.2	39.8	45.6	43.7
2029	49.1	50.4	54.1	50.7	41.3	47.6	46.5	50.4	42.2	41.4	47.2	45.3
2030	49.2	52.4	55.9	52.8	41.3	47.7	48.4	50.5	42.2	42.3	49.1	46.1
2031	49.2	53.1	57.8	53.5	41.4	47.7	50.3	50.5	42.3	49.3	51.0	54.4
2032	49.2	66.1	59.7	68.6	41.4	48.3	52.3	51.0	42.3	50.7	53.0	56.2

**Table Error! No text of specified style in document.171 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)</b>												
	Honda				Hyundai Kia-H				Hyundai Kia-K			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	39.1	37.8	39.1	37.8	39.6	39.1	39.6	39.1	39.5	38.5	39.5	38.5
2023	39.4	40.2	39.4	40.2	40.0	40.8	40.0	40.8	39.8	40.5	39.8	40.5
2024	42.7	40.1	42.7	40.1	43.3	41.0	43.3	41.0	43.1	44.7	43.1	44.7
2025	46.2	41.7	46.2	41.7	46.8	44.2	46.8	44.2	46.7	44.7	46.7	44.7
2026	51.2	45.5	51.2	45.5	51.9	48.0	51.9	48.0	51.7	49.5	51.7	49.5
2027	51.1	54.4	52.8	54.9	51.9	49.7	53.5	51.2	51.7	49.4	53.3	49.4
2028	51.1	57.9	54.5	58.5	51.8	56.8	55.1	60.7	51.6	49.4	55.0	49.4
2029	51.0	59.5	56.2	60.2	51.8	56.6	56.8	60.7	51.6	57.4	56.7	58.9
2030	51.1	59.4	58.1	60.2	51.8	56.6	58.6	60.7	51.6	57.6	58.5	60.2
2031	51.1	61.3	60.1	62.2	51.9	63.4	60.4	67.7	51.7	67.1	60.5	72.8
2032	51.1	66.9	62.0	71.4	51.9	71.4	62.3	77.2	51.7	75.0	62.4	82.2

**Table Error! No text of specified style in document.172 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)												
Model Year	JLR				Karma				Lucid			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	32.9	27.4	32.9	27.4	40.6	66.7	40.6	66.7	40.6	166.5	40.6	166.5
2023	33.4	34.2	33.4	34.2	41.1	66.7	41.1	66.7	41.1	166.5	41.1	166.5
2024	36.2	36.7	36.2	36.7	44.3	66.7	44.3	66.7	44.3	166.5	44.3	166.5
2025	39.4	36.8	39.4	36.8	48.1	66.7	48.1	66.7	48.1	166.5	48.1	166.5
2026	43.7	40.8	43.7	40.8	53.5	138.6	53.5	138.6	53.5	166.5	53.5	166.5
2027	43.7	41.8	45.5	41.8	54.1	138.6	55.2	138.6	54.1	166.5	55.2	166.5
2028	43.7	41.8	47.4	41.8	54.1	138.6	56.3	138.6	54.1	166.5	56.3	166.5
2029	43.7	41.8	49.4	41.8	54.1	138.6	57.5	138.6	54.1	166.5	57.5	166.5
2030	43.7	44.0	51.4	44.1	54.1	138.6	58.6	138.6	54.1	166.5	58.6	166.5
2031	43.7	46.7	53.6	52.4	54.1	138.6	59.8	138.6	54.1	166.5	59.8	166.5
2032	43.7	52.6	55.8	55.7	54.1	138.6	61.1	138.6	54.1	170.6	61.1	170.6

**Table Error! No text of specified style in document.173 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)</b>												
	Mazda				Mercedes-Benz				Mitsubishi			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	37.3	35.1	37.3	35.1	36.8	31.6	36.8	31.6	42.0	38.6	42.0	38.6
2023	37.8	41.2	37.8	41.2	37.2	36.7	37.2	36.7	42.5	38.8	42.5	38.8
2024	41.0	42.4	41.0	42.4	40.2	37.2	40.2	37.2	45.9	45.6	45.9	45.6
2025	44.4	42.5	44.4	42.5	43.6	37.9	43.6	37.9	49.8	48.6	49.8	48.6
2026	49.4	46.8	49.4	46.8	48.4	43.5	48.4	43.5	55.2	55.3	55.2	55.3
2027	49.3	50.4	51.3	51.0	48.3	49.2	49.9	49.7	55.1	55.2	56.9	55.2
2028	49.3	50.4	53.3	51.0	48.3	56.0	51.5	58.4	55.1	55.3	58.7	55.3
2029	49.3	67.2	55.4	68.4	48.3	56.0	53.3	59.1	55.1	55.3	60.5	55.3
2030	49.3	78.3	57.6	79.9	48.3	71.1	55.0	76.1	55.1	55.3	62.5	55.3
2031	49.3	78.4	59.9	80.0	48.3	75.1	56.9	80.5	55.1	74.4	64.5	65.1
2032	49.3	78.2	62.3	80.0	48.3	77.9	58.8	83.6	55.1	74.5	66.6	65.6

**Table Error! No text of specified style in document.174 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)												
	Nissan				Stellantis				Subaru			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	38.9	36.8	38.9	36.8	31.9	27.3	31.9	27.3	37.8	36.7	37.8	36.7
2023	39.3	39.6	39.3	39.6	32.3	28.5	32.3	28.5	38.2	40.3	38.2	40.3
2024	42.4	41.8	42.4	41.8	34.9	31.4	34.9	31.4	41.4	42.2	41.4	42.2
2025	46.0	44.6	46.0	44.6	38.0	37.1	38.0	37.1	44.9	43.8	44.9	43.8
2026	50.9	47.5	50.9	47.5	42.1	37.6	42.1	37.6	50.0	49.1	50.0	49.1
2027	50.9	47.9	52.5	48.2	42.1	39.4	43.8	43.9	49.9	50.9	51.9	50.4
2028	50.8	56.2	54.1	56.9	42.1	39.7	45.6	44.3	49.9	61.2	53.9	61.7
2029	50.8	57.8	55.8	58.6	42.1	45.2	47.3	50.7	49.9	63.4	56.0	63.9
2030	50.8	60.9	57.6	61.9	42.1	48.7	49.2	50.9	49.9	64.7	58.2	65.2
2031	50.9	61.4	59.5	62.4	42.1	49.4	51.1	51.8	49.9	64.4	60.5	65.2
2032	50.9	69.3	61.4	70.6	42.1	50.7	53.2	53.2	49.9	64.9	62.9	65.8



**Table Error! No text of specified style in document.175 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)</b>												
	Tesla				Toyota				Volvo			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	40.7	160.7	40.7	160.7	37.1	36.6	37.1	36.6	36.0	39.0	36.0	39.0
2023	41.2	160.7	41.2	160.7	37.4	37.7	37.4	37.7	36.4	41.3	36.4	41.3
2024	44.8	160.7	44.8	160.7	40.4	40.6	40.4	40.6	39.4	41.3	39.4	41.3
2025	48.6	160.6	48.6	160.6	43.6	41.7	43.6	41.7	42.6	45.3	42.6	45.3
2026	54.1	160.6	54.1	160.6	48.4	46.6	48.4	46.6	47.4	46.1	47.4	46.1
2027	54.1	160.6	55.2	160.6	48.3	48.2	50.0	48.2	47.3	46.1	49.0	46.6
2028	54.1	160.6	56.4	160.6	48.3	48.6	51.8	48.7	47.3	46.0	50.8	46.6
2029	54.1	160.6	57.7	160.6	48.3	52.4	53.6	52.6	47.3	46.1	52.7	47.0
2030	54.1	160.6	58.9	160.6	48.3	59.3	55.5	59.3	47.3	62.8	54.6	64.4
2031	54.1	160.6	60.3	160.6	48.3	63.2	57.5	63.2	47.3	64.0	56.7	65.6
2032	54.1	160.6	61.5	160.6	48.4	66.0	59.5	65.3	47.3	81.8	58.7	83.4

**Table Error! No text of specified style in document.176 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Total Fleet (mpg)												
	VWA				Total							
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	37.9	33.8	37.9	33.8	35.8	34.1	35.8	34.1	0.0	0.0	0.0	0.0
2023	38.2	35.2	38.2	35.2	36.1	35.5	36.1	35.5	0.0	0.0	0.0	0.0
2024	41.3	40.3	41.3	40.3	39.0	38.5	39.0	38.5	0.0	0.0	0.0	0.0
2025	44.8	42.7	44.8	42.7	42.2	40.8	42.2	40.8	0.0	0.0	0.0	0.0
2026	49.6	45.6	49.6	45.6	46.8	43.7	46.8	43.7	0.0	0.0	0.0	0.0
2027	49.6	47.0	51.3	47.4	46.7	46.4	48.4	48.1	0.0	0.0	0.0	0.0
2028	49.6	50.9	53.1	51.4	46.7	48.8	50.1	50.9	0.0	0.0	0.0	0.0
2029	49.5	50.9	55.0	51.5	46.7	51.8	51.9	54.3	0.0	0.0	0.0	0.0
2030	49.5	59.9	57.0	63.5	46.7	54.7	53.8	56.9	0.0	0.0	0.0	0.0
2031	49.6	67.2	59.0	71.5	46.7	58.0	55.7	60.5	0.0	0.0	0.0	0.0
2032	49.6	75.1	61.0	80.5	46.7	61.3	57.7	64.3	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.177 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	BMW				Ford				GM			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	43.3	35.4	43.3	35.4	43.4	40.7	43.4	40.7	45.1	39.1	45.1	39.1
2023	44.0	38.7	44.0	38.7	44.1	40.8	44.1	40.8	45.8	39.3	45.8	39.3
2024	47.8	48.1	47.8	48.1	47.9	56.2	47.9	56.2	49.7	49.1	49.7	49.1
2025	52.0	50.2	52.0	50.2	52.1	57.9	52.1	57.9	54.1	51.2	54.1	51.2
2026	57.7	56.7	57.7	56.7	57.9	57.9	57.9	57.9	60.1	57.8	60.1	57.8
2027	57.7	56.7	58.9	56.7	57.9	60.9	59.0	66.4	60.1	57.8	61.3	57.9
2028	57.7	66.4	60.1	66.4	57.9	60.9	60.2	66.4	60.1	58.2	62.6	58.3
2029	57.7	70.7	61.3	70.7	57.9	60.9	61.5	66.4	60.1	79.9	63.9	77.7
2030	57.7	77.6	62.6	77.6	57.9	61.2	62.7	66.7	60.1	86.3	65.1	77.7
2031	57.7	79.2	63.9	79.3	57.9	61.2	64.0	66.7	60.1	99.2	66.5	88.6
2032	57.7	81.1	65.2	81.1	57.9	64.8	65.3	66.7	60.1	102.0	67.8	91.2

**Table Error! No text of specified style in document.178 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	Honda				Hyundai Kia-H				Hyundai Kia-K			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	44.7	43.4	44.7	43.4	44.2	42.9	44.2	42.9	44.7	44.3	44.7	44.3
2023	45.4	46.9	45.4	46.9	44.9	46.0	44.9	46.0	45.4	46.5	45.4	46.5
2024	49.4	47.2	49.4	47.2	48.8	46.4	48.8	46.4	49.4	55.7	49.4	55.7
2025	53.7	48.7	53.7	48.7	53.1	50.2	53.1	50.2	53.6	55.7	53.6	55.7
2026	59.6	53.1	59.6	53.1	59.0	56.3	59.0	56.3	59.6	58.2	59.6	58.2
2027	59.6	56.2	60.8	57.4	59.0	57.9	60.2	61.0	59.6	58.2	60.8	58.3
2028	59.6	64.4	62.1	66.1	59.0	58.2	61.4	65.4	59.6	58.2	62.1	58.3
2029	59.6	68.9	63.3	70.8	59.0	58.0	62.7	65.4	59.6	71.9	63.3	69.5
2030	59.6	68.7	64.6	70.8	59.0	58.0	64.0	65.4	59.6	72.5	64.6	72.9
2031	59.6	69.9	66.0	72.0	59.0	59.3	65.3	65.7	59.6	94.2	65.9	94.6
2032	59.6	87.5	67.3	101.9	59.0	73.3	66.6	84.1	59.6	131.9	67.2	132.6

**Table Error! No text of specified style in document.179 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	JLR				Karma				Lucid			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	43.2	29.4	43.2	29.4	40.6	66.7	40.6	66.7	40.6	166.5	40.6	166.5
2023	43.8	54.5	43.8	54.5	41.1	66.7	41.1	66.7	41.1	166.5	41.1	166.5
2024	47.6	54.5	47.6	54.5	44.3	66.7	44.3	66.7	44.3	166.5	44.3	166.5
2025	51.8	54.5	51.8	54.5	48.1	66.7	48.1	66.7	48.1	166.5	48.1	166.5
2026	57.5	61.7	57.5	61.7	53.5	138.6	53.5	138.6	53.5	166.5	53.5	166.5
2027	57.5	61.8	58.7	61.8	54.1	138.6	55.2	138.6	54.1	166.5	55.2	166.5
2028	57.5	61.8	59.9	61.8	54.1	138.6	56.3	138.6	54.1	166.5	56.3	166.5
2029	57.5	61.8	61.1	61.8	54.1	138.6	57.5	138.6	54.1	166.5	57.5	166.5
2030	57.5	62.1	62.4	64.4	54.1	138.6	58.6	138.6	54.1	166.5	58.6	166.5
2031	57.5	62.0	63.6	64.3	54.1	138.6	59.8	138.6	54.1	166.5	59.8	166.5
2032	57.5	62.1	64.9	64.6	54.1	138.6	61.1	138.6	54.1	170.6	61.1	170.6

**Table Error! No text of specified style in document.180 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	Mazda				Mercedes-Benz				Mitsubishi			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	46.1	40.1	46.1	40.1	41.8	34.1	41.8	34.1	47.0	41.4	47.0	41.4
2023	46.8	40.8	46.8	40.8	42.4	41.6	42.4	41.6	47.7	41.7	47.7	41.7
2024	50.9	49.6	50.9	49.6	46.1	43.4	46.1	43.4	51.9	51.6	51.9	51.6
2025	55.3	51.9	55.3	51.9	50.1	46.1	50.1	46.1	56.4	55.5	56.4	55.5
2026	61.5	57.2	61.5	57.2	55.6	54.5	55.6	54.5	62.7	63.9	62.7	63.9
2027	61.5	60.2	62.7	60.7	55.6	56.5	56.8	59.2	62.7	63.9	63.9	63.9
2028	61.5	60.2	64.0	61.2	55.6	56.5	57.9	59.2	62.7	64.2	65.2	64.2
2029	61.5	128.8	65.3	133.3	55.6	57.1	59.1	60.9	62.7	64.2	66.6	64.2
2030	61.5	128.8	66.7	133.3	55.6	60.8	60.3	65.3	62.7	64.2	67.9	64.2
2031	61.5	128.8	68.0	133.3	55.6	68.0	61.6	73.5	62.7	69.6	69.3	69.7
2032	61.5	128.9	69.4	133.4	55.6	73.5	62.8	79.8	62.7	69.9	70.7	70.8

**Table Error! No text of specified style in document.181 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	Nissan				Stellantis				Subaru			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	44.7	42.4	44.7	42.4	41.8	28.2	41.8	28.2	46.0	37.0	46.0	37.0
2023	45.4	46.5	45.4	46.5	42.4	30.5	42.4	30.5	46.7	46.1	46.7	46.1
2024	49.3	50.0	49.3	50.0	46.1	41.2	46.1	41.2	50.7	46.1	50.7	46.1
2025	53.6	54.1	53.6	54.1	50.0	52.2	50.0	52.2	55.1	54.6	55.1	54.6
2026	59.6	58.6	59.6	58.6	55.6	54.3	55.6	54.3	61.3	60.4	61.3	60.4
2027	59.6	58.7	60.8	59.4	55.6	54.3	56.8	54.3	61.3	62.5	62.5	62.0
2028	59.6	58.7	62.1	60.0	55.6	54.3	57.9	54.9	61.3	82.5	63.8	82.5
2029	59.6	58.7	63.3	60.0	55.6	57.3	59.1	58.0	61.3	129.6	65.1	129.6
2030	59.6	62.6	64.6	64.3	55.6	61.5	60.3	61.4	61.3	169.0	66.4	169.1
2031	59.6	63.5	65.9	65.3	55.6	73.5	61.5	74.6	61.3	168.7	67.8	169.0
2032	59.6	81.9	67.3	85.2	55.6	80.2	62.8	81.4	61.3	203.1	69.2	203.1

**Table Error! No text of specified style in document.182 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	Tesla				Toyota				Volvo			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	41.1	161.0	41.1	161.0	44.7	44.0	44.7	44.0	42.9	53.6	42.9	53.6
2023	41.7	161.0	41.7	161.0	45.4	46.3	45.4	46.3	43.6	55.4	43.6	55.4
2024	45.3	161.0	45.3	161.0	49.4	47.6	49.4	47.6	47.4	56.0	47.4	56.0
2025	49.3	161.0	49.3	161.0	53.6	49.5	53.6	49.5	51.5	59.6	51.5	59.6
2026	54.8	161.0	54.8	161.0	59.6	56.4	59.6	56.4	57.2	63.5	57.2	63.5
2027	54.8	161.0	55.9	161.0	59.6	58.1	60.8	58.5	57.2	63.5	58.3	63.4
2028	54.8	161.0	57.0	161.0	59.6	58.5	62.1	59.3	57.2	63.5	59.5	63.4
2029	54.8	161.0	58.2	161.0	59.6	62.3	63.4	63.1	57.2	64.2	60.8	64.2
2030	54.8	161.0	59.4	161.0	59.6	88.7	64.6	89.2	57.2	65.2	62.0	65.7
2031	54.8	161.0	60.7	161.0	59.6	94.3	65.9	94.8	57.2	67.8	63.3	68.2
2032	54.8	161.0	61.9	161.0	59.6	96.8	67.3	96.3	57.2	67.8	64.6	68.6



**Table Error! No text of specified style in document.183 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Passenger Car Fleet (mpg)</b>												
	VWA				Total							
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	45.0	37.8	45.0	37.8	44.1	43.7	44.1	43.7	0.0	0.0	0.0	0.0
2023	45.7	38.8	45.7	38.8	44.8	46.6	44.8	46.6	0.0	0.0	0.0	0.0
2024	49.7	44.3	49.7	44.3	48.7	51.3	48.7	51.3	0.0	0.0	0.0	0.0
2025	54.0	47.5	54.0	47.5	52.9	54.4	52.9	54.4	0.0	0.0	0.0	0.0
2026	60.0	55.1	60.0	55.1	58.8	59.9	58.8	59.9	0.0	0.0	0.0	0.0
2027	60.0	61.3	61.2	61.3	58.8	61.6	60.0	62.5	0.0	0.0	0.0	0.0
2028	60.0	85.0	62.5	85.0	58.8	64.6	61.2	66.3	0.0	0.0	0.0	0.0
2029	60.0	85.0	63.8	85.2	58.8	69.7	62.5	71.5	0.0	0.0	0.0	0.0
2030	60.0	85.2	65.1	85.4	58.8	76.2	63.7	78.0	0.0	0.0	0.0	0.0
2031	60.0	97.8	66.4	98.2	58.8	81.2	65.1	83.0	0.0	0.0	0.0	0.0
2032	60.0	97.9	67.7	98.2	58.8	92.7	66.4	96.4	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.184 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	BMW				Ford				GM			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	32.5	30.3	32.5	30.3	30.3	27.9	30.3	27.9	29.8	26.8	29.8	26.8
2023	33.0	31.3	33.0	31.3	30.8	29.1	30.8	29.1	30.3	26.9	30.3	26.9
2024	35.9	31.3	35.9	31.3	33.2	32.1	33.2	32.1	32.5	30.9	32.5	30.9
2025	39.0	34.9	39.0	34.9	36.1	32.9	36.1	32.9	35.4	34.1	35.4	34.1
2026	43.4	40.1	43.4	40.1	40.2	35.1	40.2	35.1	39.3	35.0	39.3	35.0
2027	43.4	40.1	45.2	40.1	40.2	39.3	41.8	41.2	39.3	36.9	40.9	40.9
2028	43.4	40.1	47.0	40.1	40.2	43.0	43.6	45.0	39.3	36.9	42.7	41.1
2029	43.4	40.1	49.0	40.6	40.2	46.6	45.4	49.3	39.3	36.9	44.4	41.1
2030	43.4	40.6	51.0	41.1	40.2	46.6	47.3	49.3	39.3	37.6	46.3	41.9
2031	43.4	40.9	53.2	41.4	40.2	46.6	49.2	49.3	39.3	43.7	48.2	49.6
2032	43.4	56.5	55.4	60.2	40.2	47.1	51.3	49.8	39.3	45.0	50.2	51.3

**Table Error! No text of specified style in document.185 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	Honda				Hyundai Kia-H				Hyundai Kia-K			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	34.0	32.8	34.0	32.8	34.0	34.3	34.0	34.3	34.0	32.6	34.0	32.6
2023	34.5	34.8	34.5	34.8	34.5	35.1	34.5	35.1	34.5	34.9	34.5	34.9
2024	37.5	34.9	37.5	34.9	37.5	35.4	37.5	35.4	37.5	36.3	37.5	36.3
2025	40.8	36.7	40.8	36.7	40.7	38.4	40.7	38.4	40.8	36.6	40.8	36.6
2026	45.3	40.2	45.3	40.2	45.3	40.7	45.3	40.7	45.3	42.6	45.3	42.6
2027	45.3	52.9	47.2	52.9	45.3	42.5	47.2	42.9	45.3	42.6	47.2	42.6
2028	45.3	53.1	49.2	53.1	45.3	55.3	49.1	56.0	45.3	42.6	49.2	42.6
2029	45.3	53.1	51.2	53.1	45.3	55.1	51.2	56.0	45.3	47.5	51.2	51.0
2030	45.3	53.0	53.4	53.2	45.3	55.1	53.3	56.0	45.3	47.5	53.3	51.0
2031	45.3	55.2	55.6	55.4	45.3	69.1	55.5	70.2	45.3	51.4	55.6	58.6
2032	45.3	55.2	57.9	56.3	45.3	69.1	57.8	70.2	45.3	51.4	57.9	58.6

**Table Error! No text of specified style in document.186 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	JLR				Karma				Lucid			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	32.7	27.3	32.7	27.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	33.2	33.9	33.2	33.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	36.0	36.4	36.0	36.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	39.2	36.5	39.2	36.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	43.5	40.5	43.5	40.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	43.5	41.5	45.3	41.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	43.5	41.5	47.2	41.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	43.5	41.5	49.2	41.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	43.5	43.8	51.2	43.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	43.5	46.4	53.4	52.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	43.5	52.4	55.6	55.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.187 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)												
	Mazda				Mercedes-Benz				Mitsubishi			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	36.0	34.3	36.0	34.3	32.9	29.4	32.9	29.4	37.0	35.6	37.0	35.6
2023	36.6	41.3	36.6	41.3	33.4	33.1	33.4	33.1	37.6	35.9	37.6	35.9
2024	39.8	41.4	39.8	41.4	36.3	33.2	36.3	33.2	40.8	40.5	40.8	40.5
2025	43.2	41.4	43.2	41.4	39.5	33.2	39.5	33.2	44.4	43.1	44.4	43.1
2026	48.0	45.6	48.0	45.6	43.9	37.6	43.9	37.6	49.3	48.8	49.3	48.8
2027	48.0	49.3	50.0	49.8	43.9	44.8	45.7	44.3	49.3	48.7	51.4	48.8
2028	48.0	49.3	52.1	49.8	43.9	55.7	47.6	57.8	49.3	48.7	53.5	48.8
2029	48.0	63.1	54.3	64.1	43.9	55.1	49.6	57.8	49.3	48.7	55.7	48.8
2030	48.0	74.3	56.5	75.7	43.9	81.5	51.6	86.8	49.3	48.7	58.1	48.8
2031	48.0	74.3	58.9	75.7	43.9	81.5	53.8	86.8	49.3	79.7	60.5	61.2
2032	48.0	74.1	61.4	75.7	43.9	81.5	56.0	86.8	49.3	79.7	63.0	61.3

**Table Error! No text of specified style in document.188 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	Nissan				Stellantis				Subaru			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	32.9	30.9	32.9	30.9	30.7	27.2	30.7	27.2	36.5	36.6	36.5	36.6
2023	33.4	33.3	33.4	33.3	31.2	28.3	31.2	28.3	37.0	39.4	37.0	39.4
2024	36.3	34.9	36.3	34.9	33.8	30.4	33.8	30.4	40.2	41.6	40.2	41.6
2025	39.5	37.1	39.5	37.1	36.8	35.8	36.8	35.8	43.7	42.5	43.7	42.5
2026	43.9	39.3	43.9	39.3	40.9	36.2	40.9	36.2	48.6	47.7	48.6	47.7
2027	43.9	40.0	45.7	40.0	40.9	38.1	42.6	42.9	48.6	49.5	50.6	49.1
2028	43.9	53.7	47.6	53.9	40.9	38.4	44.4	43.3	48.6	59.0	52.7	59.5
2029	43.9	56.8	49.6	57.1	40.9	44.1	46.2	49.9	48.6	59.1	54.9	59.5
2030	43.9	59.3	51.7	59.5	40.9	47.5	48.1	49.9	48.6	59.4	57.2	59.9
2031	43.9	59.3	53.8	59.5	40.9	47.5	50.1	49.9	48.6	59.0	59.6	59.8
2032	43.9	59.3	56.1	59.6	40.9	48.5	52.2	51.0	48.6	59.0	62.1	59.8

**Table Error! No text of specified style in document.189 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	Tesla				Toyota				Volvo			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	33.4	154.4	33.4	154.4	33.0	32.7	33.0	32.7	33.4	34.5	33.4	34.5
2023	33.9	154.4	33.9	154.4	33.5	33.6	33.5	33.6	33.9	37.2	33.9	37.2
2024	36.9	154.4	36.9	154.4	36.3	37.2	36.3	37.2	36.8	37.3	36.8	37.3
2025	40.1	154.4	40.1	154.4	39.4	38.3	39.4	38.3	40.0	41.4	40.0	41.4
2026	44.5	154.4	44.5	154.4	43.8	42.5	43.8	42.5	44.5	41.9	44.5	41.9
2027	44.5	154.4	46.4	154.4	43.8	44.1	45.6	44.0	44.5	41.9	46.3	42.5
2028	44.5	154.4	48.3	154.4	43.8	44.5	47.5	44.5	44.5	41.9	48.3	42.5
2029	44.5	154.4	50.3	154.4	43.8	48.4	49.5	48.4	44.5	41.9	50.3	42.9
2030	44.5	154.4	52.4	154.4	43.8	50.3	51.6	50.3	44.5	62.0	52.4	64.0
2031	44.5	154.4	54.6	154.4	43.8	53.5	53.7	53.5	44.5	62.7	54.6	64.7
2032	44.5	154.4	56.9	154.4	43.8	56.1	55.9	55.5	44.5	88.5	56.8	90.6

**Table Error! No text of specified style in document.190 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Light Truck Fleet (mpg)</b>												
	VWA				Total							
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	34.0	31.5	34.0	31.5	32.1	30.1	32.1	30.1	0.0	0.0	0.0	0.0
2023	34.5	33.1	34.5	33.1	32.6	31.3	32.6	31.3	0.0	0.0	0.0	0.0
2024	37.5	38.2	37.5	38.2	35.3	34.0	35.3	34.0	0.0	0.0	0.0	0.0
2025	40.8	40.4	40.8	40.4	38.3	36.4	38.3	36.4	0.0	0.0	0.0	0.0
2026	45.3	41.6	45.3	41.6	42.6	38.8	42.6	38.8	0.0	0.0	0.0	0.0
2027	45.3	41.7	47.2	42.1	42.6	41.5	44.4	43.4	0.0	0.0	0.0	0.0
2028	45.3	41.8	49.2	42.4	42.6	43.8	46.2	46.0	0.0	0.0	0.0	0.0
2029	45.3	41.9	51.2	42.6	42.6	46.4	48.2	48.9	0.0	0.0	0.0	0.0
2030	45.3	51.6	53.4	55.8	42.6	48.3	50.2	50.6	0.0	0.0	0.0	0.0
2031	45.3	57.4	55.6	62.3	42.6	51.2	52.2	53.7	0.0	0.0	0.0	0.0
2032	45.3	66.6	57.9	73.3	42.6	52.9	54.4	55.6	0.0	0.0	0.0	0.0



**Table Error! No text of specified style in document.191 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)												
Model Year	BMW				Ford				GM			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	0.0	0.0	0.0	0.0	43.4	40.7	43.4	40.7	44.3	38.3	44.3	38.3
2023	0.0	0.0	0.0	0.0	44.1	40.8	44.1	40.8	45.0	38.6	45.0	38.6
2024	0.0	0.0	0.0	0.0	47.9	56.2	47.9	56.2	48.9	49.6	48.9	49.6
2025	0.0	0.0	0.0	0.0	52.1	57.9	52.1	57.9	53.2	51.2	53.2	51.2
2026	0.0	0.0	0.0	0.0	57.9	57.9	57.9	57.9	59.1	56.7	59.1	56.7
2027	0.0	0.0	0.0	0.0	57.9	60.9	59.0	66.4	59.1	56.8	60.3	56.9
2028	0.0	0.0	0.0	0.0	57.9	60.9	60.2	66.4	59.1	57.3	61.5	57.4
2029	0.0	0.0	0.0	0.0	57.9	60.9	61.5	66.4	59.1	84.0	62.8	84.7
2030	0.0	0.0	0.0	0.0	57.9	61.2	62.7	66.7	59.1	84.0	64.0	84.7
2031	0.0	0.0	0.0	0.0	57.9	61.2	64.0	66.7	59.1	94.3	65.4	95.6
2032	0.0	0.0	0.0	0.0	57.9	64.8	65.3	66.7	59.1	97.8	66.7	100.0

**Table Error! No text of specified style in document.192 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)												
Model Year	Honda				Hyundai Kia-H				Hyundai Kia-K			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	44.7	43.4	44.7	43.4	48.7	50.7	48.7	50.7	45.8	45.0	45.8	45.0
2023	45.4	46.9	45.4	46.9	49.5	284.8	49.5	284.8	46.5	45.0	46.5	45.0
2024	49.4	47.2	49.4	47.2	53.8	284.8	53.8	284.8	50.6	61.5	50.6	61.5
2025	53.7	48.7	53.7	48.7	58.4	284.8	58.4	284.8	55.0	61.5	55.0	61.5
2026	59.6	53.1	59.6	53.1	64.9	284.8	64.9	284.8	61.1	61.5	61.1	61.5
2027	59.6	56.1	60.8	57.4	64.9	284.8	66.3	284.8	61.1	61.5	62.3	61.5
2028	59.6	64.4	62.1	66.1	64.9	295.8	67.6	295.8	61.1	61.5	63.6	61.5
2029	59.6	68.9	63.3	70.8	64.9	295.8	69.0	295.8	61.1	214.5	64.9	115.2
2030	59.6	68.7	64.6	70.8	64.9	295.8	70.4	295.8	61.1	214.5	66.2	115.2
2031	59.6	69.8	66.0	72.0	64.9	295.8	71.8	295.8	61.1	214.5	67.6	115.2
2032	59.6	87.4	67.3	101.9	64.9	295.8	73.3	295.8	61.1	214.5	69.0	115.2

**Table Error! No text of specified style in document.193 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)</b>												
	JLR				Karma				Lucid			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	0.0	0.0	0.0	0.0	40.6	66.7	40.6	66.7	40.6	166.5	40.6	166.5
2023	0.0	0.0	0.0	0.0	41.1	66.7	41.1	66.7	41.1	166.5	41.1	166.5
2024	0.0	0.0	0.0	0.0	44.3	66.7	44.3	66.7	44.3	166.5	44.3	166.5
2025	0.0	0.0	0.0	0.0	48.1	66.7	48.1	66.7	48.1	166.5	48.1	166.5
2026	0.0	0.0	0.0	0.0	53.5	138.6	53.5	138.6	53.5	166.5	53.5	166.5
2027	0.0	0.0	0.0	0.0	54.1	138.6	55.2	138.6	54.1	166.5	55.2	166.5
2028	0.0	0.0	0.0	0.0	54.1	138.6	56.3	138.6	54.1	166.5	56.3	166.5
2029	0.0	0.0	0.0	0.0	54.1	138.6	57.5	138.6	54.1	166.5	57.5	166.5
2030	0.0	0.0	0.0	0.0	54.1	138.6	58.6	138.6	54.1	166.5	58.6	166.5
2031	0.0	0.0	0.0	0.0	54.1	138.6	59.8	138.6	54.1	166.5	59.8	166.5
2032	0.0	0.0	0.0	0.0	54.1	138.6	61.1	138.6	54.1	170.6	61.1	170.6

**Table Error! No text of specified style in document.194 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)												
	Mazda				Mercedes-Benz				Mitsubishi			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.195 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)												
	Nissan				Stellantis				Subaru			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	44.5	41.7	44.5	41.7	41.4	27.8	41.4	27.8	0.0	0.0	0.0	0.0
2023	45.2	42.8	45.2	42.8	42.0	30.1	42.0	30.1	0.0	0.0	0.0	0.0
2024	49.1	46.4	49.1	46.4	45.7	41.2	45.7	41.2	0.0	0.0	0.0	0.0
2025	53.4	51.4	53.4	51.4	49.6	52.7	49.6	52.7	0.0	0.0	0.0	0.0
2026	59.3	57.1	59.3	57.1	55.1	53.8	55.1	53.8	0.0	0.0	0.0	0.0
2027	59.3	57.3	60.5	58.2	55.1	53.8	56.3	53.8	0.0	0.0	0.0	0.0
2028	59.3	57.3	61.8	58.2	55.1	53.8	57.4	54.4	0.0	0.0	0.0	0.0
2029	59.3	57.3	63.0	58.2	55.1	57.1	58.6	57.9	0.0	0.0	0.0	0.0
2030	59.3	62.5	64.3	63.8	55.1	61.5	59.8	61.4	0.0	0.0	0.0	0.0
2031	59.3	63.8	65.6	65.2	55.1	75.4	61.0	76.7	0.0	0.0	0.0	0.0
2032	59.3	88.5	67.0	91.6	55.1	75.4	62.2	76.7	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.196 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)</b>												
	Tesla				Toyota				Volvo			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	40.8	157.5	40.8	157.5	43.1	41.0	43.1	41.0	42.3	42.2	42.3	42.2
2023	41.4	157.5	41.4	157.5	43.7	41.5	43.7	41.5	42.9	45.5	42.9	45.5
2024	45.0	157.5	45.0	157.5	47.5	44.3	47.5	44.3	46.7	45.5	46.7	45.5
2025	48.9	157.5	48.9	157.5	51.7	48.6	51.7	48.6	50.7	49.5	50.7	49.5
2026	54.4	157.5	54.4	157.5	57.4	53.1	57.4	53.1	56.4	58.2	56.4	58.2
2027	54.4	157.5	55.5	157.5	57.4	54.1	58.6	55.4	56.4	58.2	57.5	58.2
2028	54.4	157.5	56.6	157.5	57.4	54.6	59.8	56.0	56.4	58.2	58.7	58.2
2029	54.4	157.5	57.8	157.5	57.4	56.3	61.0	57.8	56.4	58.2	59.9	58.2
2030	54.4	157.5	58.9	157.5	57.4	173.2	62.2	173.2	56.4	59.3	61.1	60.3
2031	54.4	157.5	60.2	157.5	57.4	218.7	63.5	218.7	56.4	59.4	62.3	60.3
2032	54.4	157.5	61.4	157.5	57.4	218.7	64.8	218.7	56.4	59.4	63.6	60.3

**Table Error! No text of specified style in document.197 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Domestic Car Fleet (mpg)</b>												
	VWA				Total							
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	41.4	32.8	41.4	32.8	43.5	44.9	43.5	44.9	0.0	0.0	0.0	0.0
2023	42.0	32.8	42.0	32.8	44.2	46.9	44.2	46.9	0.0	0.0	0.0	0.0
2024	45.7	38.2	45.7	38.2	48.1	53.1	48.1	53.1	0.0	0.0	0.0	0.0
2025	49.6	38.2	49.6	38.2	52.3	56.8	52.3	56.8	0.0	0.0	0.0	0.0
2026	55.2	80.6	55.2	80.6	58.0	61.4	58.0	61.4	0.0	0.0	0.0	0.0
2027	55.2	80.6	56.3	80.6	58.0	63.0	59.2	64.2	0.0	0.0	0.0	0.0
2028	55.2	80.6	57.4	80.6	58.0	65.9	60.4	67.3	0.0	0.0	0.0	0.0
2029	55.2	80.6	58.6	83.0	58.0	72.9	61.7	74.0	0.0	0.0	0.0	0.0
2030	55.2	80.6	59.8	83.0	58.0	81.2	62.9	82.3	0.0	0.0	0.0	0.0
2031	55.2	80.6	61.0	83.0	58.0	85.4	64.2	86.8	0.0	0.0	0.0	0.0
2032	55.2	80.6	62.3	83.0	58.0	99.3	65.5	104.3	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.198 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)</b>												
	BMW				Ford				GM			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	43.3	35.4	43.3	35.4	0.0	0.0	0.0	0.0	47.1	41.1	47.1	41.1
2023	44.0	38.7	44.0	38.7	0.0	0.0	0.0	0.0	47.9	41.2	47.9	41.2
2024	47.8	48.1	47.8	48.1	0.0	0.0	0.0	0.0	52.0	48.0	52.0	48.0
2025	52.0	50.2	52.0	50.2	0.0	0.0	0.0	0.0	56.5	51.3	56.5	51.3
2026	57.7	56.7	57.7	56.7	0.0	0.0	0.0	0.0	62.8	60.7	62.8	60.7
2027	57.7	56.7	58.9	56.7	0.0	0.0	0.0	0.0	62.8	60.7	64.1	60.7
2028	57.7	66.4	60.1	66.4	0.0	0.0	0.0	0.0	62.8	60.7	65.4	60.7
2029	57.7	70.7	61.3	70.7	0.0	0.0	0.0	0.0	62.8	71.2	66.8	64.1
2030	57.7	77.6	62.6	77.6	0.0	0.0	0.0	0.0	62.8	92.7	68.1	64.1
2031	57.7	79.2	63.9	79.3	0.0	0.0	0.0	0.0	62.8	114.6	69.5	74.6
2032	57.7	81.1	65.2	81.1	0.0	0.0	0.0	0.0	62.8	114.6	70.9	74.6



**Table Error! No text of specified style in document.199 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)												
Model Year	Honda				Hyundai Kia-H				Hyundai Kia-K			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	44.9	29.4	44.9	29.4	44.1	42.7	44.1	42.7	44.4	44.1	44.4	44.1
2023	45.6	30.0	45.6	30.0	44.8	44.7	44.8	44.7	45.0	46.9	45.0	46.9
2024	49.5	30.1	49.5	30.1	48.7	45.1	48.7	45.1	49.0	54.0	49.0	54.0
2025	53.8	30.2	53.8	30.2	52.9	48.8	52.9	48.8	53.2	54.0	53.2	54.0
2026	59.8	103.6	59.8	103.6	58.8	54.8	58.8	54.8	59.1	57.3	59.1	57.3
2027	59.8	103.4	61.1	103.4	58.8	56.4	60.0	59.4	59.1	57.3	60.3	57.3
2028	59.8	103.4	62.3	103.4	58.8	56.7	61.2	63.8	59.1	57.3	61.6	57.3
2029	59.8	103.4	63.6	103.4	58.8	56.5	62.5	63.8	59.1	59.4	62.8	61.7
2030	59.8	103.4	64.9	103.4	58.8	56.5	63.8	63.8	59.1	59.9	64.1	65.3
2031	59.8	103.4	66.2	103.4	58.8	57.8	65.1	64.0	59.1	80.0	65.4	89.5
2032	59.8	103.4	67.5	103.4	58.8	71.6	66.4	82.2	59.1	117.5	66.7	139.3

**Table Error! No text of specified style in document.200 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)</b>												
	JLR				Karma				Lucid			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	43.2	29.4	43.2	29.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	43.8	54.5	43.8	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	47.6	54.5	47.6	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	51.8	54.5	51.8	54.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	57.5	61.7	57.5	61.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	57.5	61.8	58.7	61.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	57.5	61.8	59.9	61.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	57.5	61.8	61.1	61.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	57.5	62.1	62.4	64.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	57.5	62.0	63.6	64.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	57.5	62.1	64.9	64.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.201 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

<b>Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)</b>												
	Mazda				Mercedes-Benz				Mitsubishi			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	46.1	40.1	46.1	40.1	41.8	34.1	41.8	34.1	47.0	41.4	47.0	41.4
2023	46.8	40.8	46.8	40.8	42.4	41.6	42.4	41.6	47.7	41.7	47.7	41.7
2024	50.9	49.6	50.9	49.6	46.1	43.4	46.1	43.4	51.9	51.6	51.9	51.6
2025	55.3	51.9	55.3	51.9	50.1	46.1	50.1	46.1	56.4	55.5	56.4	55.5
2026	61.5	57.2	61.5	57.2	55.6	54.5	55.6	54.5	62.7	63.9	62.7	63.9
2027	61.5	60.2	62.7	60.7	55.6	56.5	56.8	59.2	62.7	63.9	63.9	63.9
2028	61.5	60.2	64.0	61.2	55.6	56.5	57.9	59.2	62.7	64.2	65.2	64.2
2029	61.5	128.8	65.3	133.3	55.6	57.1	59.1	60.9	62.7	64.2	66.6	64.2
2030	61.5	128.8	66.7	133.3	55.6	60.8	60.3	65.3	62.7	64.2	67.9	64.2
2031	61.5	128.8	68.0	133.3	55.6	68.0	61.6	73.5	62.7	69.6	69.3	69.7
2032	61.5	128.9	69.4	133.4	55.6	73.5	62.8	79.8	62.7	69.9	70.7	70.8

**Table Error! No text of specified style in document.202 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)												
Model Year	Nissan				Stellantis				Subaru			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	45.2	44.3	45.2	44.3	44.9	32.2	44.9	32.2	46.0	37.0	46.0	37.0
2023	45.9	60.2	45.9	60.2	45.5	34.1	45.5	34.1	46.7	46.1	46.7	46.1
2024	49.9	62.5	49.9	62.5	49.5	41.0	49.5	41.0	50.7	46.1	50.7	46.1
2025	54.3	62.6	54.3	62.6	53.8	48.5	53.8	48.5	55.1	54.6	55.1	54.6
2026	60.3	62.7	60.3	62.7	59.8	58.9	59.8	58.9	61.3	60.4	61.3	60.4
2027	60.3	62.7	61.5	62.7	59.8	58.9	61.0	58.9	61.3	62.5	62.5	62.0
2028	60.3	62.8	62.8	65.4	59.8	58.9	62.3	58.9	61.3	82.5	63.8	82.5
2029	60.3	62.7	64.0	65.4	59.8	58.9	63.5	58.9	61.3	129.6	65.1	129.6
2030	60.3	62.7	65.4	65.6	59.8	61.5	64.8	61.5	61.3	169.0	66.4	169.1
2031	60.3	62.7	66.7	65.6	59.8	61.5	66.1	61.5	61.3	168.7	67.8	169.0
2032	60.3	68.6	68.0	72.1	59.8	160.9	67.5	158.2	61.3	203.1	69.2	203.1

**Table Error! No text of specified style in document.203 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)												
Model Year	Tesla				Toyota				Volvo			
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	42.4	177.7	42.4	177.7	45.3	45.2	45.3	45.2	43.2	60.6	43.2	60.6
2023	43.1	177.7	43.1	177.7	46.0	48.2	46.0	48.2	43.9	61.2	43.9	61.2
2024	46.8	177.7	46.8	177.7	50.0	48.8	50.0	48.8	47.7	62.2	47.7	62.2
2025	50.9	177.7	50.9	177.7	54.3	49.8	54.3	49.8	51.8	65.4	51.8	65.4
2026	56.6	177.7	56.6	177.7	60.4	57.6	60.4	57.6	57.6	66.0	57.6	66.0
2027	56.6	177.7	57.7	177.7	60.4	59.5	61.6	59.6	57.6	66.0	58.7	66.0
2028	56.6	177.7	58.9	177.7	60.4	60.0	62.9	60.5	57.6	66.0	59.9	66.0
2029	56.6	177.7	60.1	177.7	60.4	64.5	64.2	65.1	57.6	67.2	61.2	67.2
2030	56.6	177.7	61.3	177.7	60.4	76.3	65.5	76.8	57.6	68.2	62.4	68.3
2031	56.6	177.7	62.6	177.7	60.4	79.3	66.8	79.8	57.6	72.2	63.7	72.3
2032	56.6	177.7	63.8	177.7	60.4	81.6	68.2	81.2	57.6	72.2	65.0	73.0

**Table Error! No text of specified style in document.204 - Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)**

Comparison of No Action Alternative (Baseline) and Alternative PC2LT4 Required and Achieved CAFE Levels in MYs 2022-2032 for the Imported Car Fleet (mpg)												
	VWA				Total							
	No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4		No Action Alternative (Baseline)		Alternative PC2LT4	
Model Year	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved	Required	Achieved
2022	45.3	38.2	45.3	38.2	44.7	42.7	44.7	42.7	0.0	0.0	0.0	0.0
2023	46.0	39.4	46.0	39.4	45.4	46.3	45.4	46.3	0.0	0.0	0.0	0.0
2024	50.0	44.9	50.0	44.9	49.3	49.6	49.3	49.6	0.0	0.0	0.0	0.0
2025	54.4	48.4	54.4	48.4	53.6	52.1	53.6	52.1	0.0	0.0	0.0	0.0
2026	60.4	53.8	60.4	53.8	59.5	58.5	59.5	58.5	0.0	0.0	0.0	0.0
2027	60.4	60.2	61.6	60.2	59.5	60.2	60.7	61.0	0.0	0.0	0.0	0.0
2028	60.4	85.4	62.9	85.4	59.5	63.4	62.0	65.5	0.0	0.0	0.0	0.0
2029	60.4	85.4	64.2	85.4	59.5	66.9	63.3	69.3	0.0	0.0	0.0	0.0
2030	60.4	85.6	65.5	85.6	59.5	71.9	64.6	74.2	0.0	0.0	0.0	0.0
2031	60.4	99.5	66.8	99.5	59.5	77.4	65.9	79.7	0.0	0.0	0.0	0.0
2032	60.4	99.5	68.2	99.6	59.5	87.0	67.2	89.7	0.0	0.0	0.0	0.0

## Incremental Benefits and Costs

**Table 205 - Incremental Benefits and Costs Over the Lifetimes of Total Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Total Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	13.4	23.0	35.6	83.4
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	4.2	6.5	8.7	15.0
Subtotal - Incremental Private Costs	17.6	29.5	44.3	98.5
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	0.4	0.7	0.7	0.1
Safety Costs Not Internalized by Drivers	-4.2	-6.7	-8.7	-15.0
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
Subtotal - Incremental External Costs	-3.8	-6.0	-8.0	-14.9
Total Incremental Social Costs	42.3	42.2	41.9	41.1
<b>Private Benefits</b>				
Reduced Fuel Costs	6.0	8.8	14.1	30.8
Benefits from Additional Driving	-18.2	-27.3	-45.3	-102.9
Less Frequent Refueling	-1.2	-1.6	-2.3	-3.7
Subtotal - Incremental Private Benefits	-13.4	-20.1	-33.5	-75.8
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-1.4	-1.9	-2.9	-5.2
Reduced Climate Damages, Average SCC	1.7	2.6	4.1	9.0
Reduced Health Damages	-0.8	-1.1	-1.9	-4.1
Subtotal - Incremental External Benefits	-0.5	-0.5	-0.7	-0.3
Total Incremental Social Benefits, Average SCC	25.0	37.2	60.6	133.3
<b>Net Incremental Social Benefits, Average SCC</b>				
Net Incremental Social Benefits, Average SCC	1.6	-0.7	1.9	2.6

**Table 206 - Incremental Benefits and Costs Over the Lifetimes of Passenger Car Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Passenger Car Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	4.2	5.3	7.9	21.9
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.0
Safety Costs Internalized by Drivers	0.7	0.6	1.6	4.4
Subtotal - Incremental Private Costs	4.9	5.9	9.5	26.3
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	-1.2	-1.0	-0.6	-0.3
Safety Costs Not Internalized by Drivers	-0.7	-0.7	-1.5	-4.3
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
Subtotal - Incremental External Costs	-2.0	-1.7	-2.1	-4.5
Total Incremental Social Costs	13.5	13.5	13.4	13.3
<b>Private Benefits</b>				
Reduced Fuel Costs	1.2	1.1	2.0	5.5
Benefits from Additional Driving	-4.4	-4.5	-6.5	-17.5
Less Frequent Refueling	-0.1	-0.2	-0.2	-0.4
Subtotal - Incremental Private Benefits	-3.3	-3.5	-4.7	-12.3
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.2	-0.2	-0.3	-0.9
Reduced Climate Damages, Average SCC	0.4	0.4	0.6	1.7
Reduced Health Damages	-0.1	-0.1	-0.2	-0.7
Subtotal - Incremental External Benefits	0.1	0.1	0.0	0.1
Total Incremental Social Benefits, Average SCC	5.7	5.9	8.6	23.1
<b>Net Incremental Social Benefits, Average SCC</b>				
Net Incremental Social Benefits, Average SCC	2.8	1.4	-0.9	-6.8



**Table 207 - Incremental Benefits and Costs Over the Lifetimes of Light Truck Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Light Truck Fleet Produced Through 2032 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	9.3	17.7	27.7	61.5
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	3.4	5.8	7.1	10.6
<b>Subtotal - Incremental Private Costs</b>	<b>12.7</b>	<b>23.5</b>	<b>34.8</b>	<b>72.2</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	1.6	1.7	1.3	0.4
Safety Costs Not Internalized by Drivers	-3.5	-6.0	-7.2	-10.8
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-1.8</b>	<b>-4.3</b>	<b>-5.9</b>	<b>-10.4</b>
<b>Total Incremental Social Costs</b>	<b>28.8</b>	<b>28.7</b>	<b>28.5</b>	<b>27.9</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	4.8	7.6	12.1	25.2
Benefits from Additional Driving	-13.9	-22.7	-38.8	-85.4
Less Frequent Refueling	-1.1	-1.4	-2.1	-3.3
<b>Subtotal - Incremental Private Benefits</b>	<b>-10.1</b>	<b>-16.5</b>	<b>-28.8</b>	<b>-63.5</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-1.2	-1.7	-2.5	-4.3
Reduced Climate Damages, Average SCC	1.3	2.2	3.5	7.4
Reduced Health Damages	-0.8	-1.1	-1.7	-3.5
<b>Subtotal - Incremental External Benefits</b>	<b>-0.6</b>	<b>-0.6</b>	<b>-0.7</b>	<b>-0.4</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>19.3</b>	<b>31.3</b>	<b>52.0</b>	<b>110.1</b>
<b>Net Incremental Social Benefits, Average SCC</b>	<b>-1.3</b>	<b>-2.1</b>	<b>2.8</b>	<b>9.5</b>

**Table 208 - Incremental Benefits and Costs Over the Lifetimes of Total Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Total Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	9.9	16.8	25.8	59.6
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	2.4	3.7	5.0	8.4
<b>Subtotal - Incremental Private Costs</b>	<b>12.3</b>	<b>20.6</b>	<b>30.8</b>	<b>68.2</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	0.2	0.4	0.4	0.3
Safety Costs Not Internalized by Drivers	-2.4	-3.8	-5.0	-8.5
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-2.2</b>	<b>-3.4</b>	<b>-4.6</b>	<b>-8.2</b>
<b>Total Incremental Social Costs</b>	<b>42.3</b>	<b>42.2</b>	<b>41.9</b>	<b>41.1</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	3.4	5.0	8.0	17.1
Benefits from Additional Driving	-10.3	-15.3	-25.2	-56.0
Less Frequent Refueling	-0.7	-0.9	-1.3	-2.1
<b>Subtotal - Incremental Private Benefits</b>	<b>-7.5</b>	<b>-11.2</b>	<b>-18.5</b>	<b>-41.0</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.8	-1.1	-1.6	-2.9
Reduced Climate Damages, Average SCC	1.7	2.6	4.1	9.0
Reduced Health Damages	-0.5	-0.6	-1.0	-2.2
<b>Subtotal - Incremental External Benefits</b>	<b>0.5</b>	<b>0.9</b>	<b>1.5</b>	<b>4.0</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>14.9</b>	<b>22.0</b>	<b>35.4</b>	<b>76.4</b>
<b>Net Incremental Social Benefits, Average SCC</b>				
<b>Net Incremental Social Benefits, Average SCC</b>	<b>-0.8</b>	<b>-3.4</b>	<b>-3.6</b>	<b>-9.9</b>

**Table 209 - Incremental Benefits and Costs Over the Lifetimes of Passenger Car Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Passenger Car Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	3.0	3.8	5.7	15.8
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.0
Safety Costs Internalized by Drivers	0.4	0.4	0.9	2.5
Subtotal - Incremental Private Costs	3.5	4.2	6.6	18.3
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	-0.7	-0.5	-0.3	0.0
Safety Costs Not Internalized by Drivers	-0.4	-0.4	-0.9	-2.4
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
Subtotal - Incremental External Costs	-1.1	-0.9	-1.2	-2.5
Total Incremental Social Costs	13.5	13.5	13.4	13.3
<b>Private Benefits</b>				
Reduced Fuel Costs	0.7	0.6	1.1	3.1
Benefits from Additional Driving	-2.4	-2.5	-3.6	-9.6
Less Frequent Refueling	-0.1	-0.1	-0.1	-0.2
Subtotal - Incremental Private Benefits	-1.8	-2.0	-2.6	-6.7
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.1	-0.1	-0.2	-0.5
Reduced Climate Damages, Average SCC	0.4	0.4	0.6	1.7
Reduced Health Damages	0.0	0.0	-0.1	-0.4
Subtotal - Incremental External Benefits	0.2	0.2	0.3	0.8
Total Incremental Social Benefits, Average SCC	3.3	3.4	5.0	13.3
<b>Net Incremental Social Benefits, Average SCC</b>				
Net Incremental Social Benefits, Average SCC	1.0	-0.1	-1.8	-7.3

**Table 210 - Incremental Benefits and Costs Over the Lifetimes of Light Truck Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs Over the Lifetimes of Light Truck Fleet Produced Through 2032 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	6.9	13.0	20.1	43.9
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	2.0	3.4	4.1	6.0
<b>Subtotal - Incremental Private Costs</b>	<b>8.9</b>	<b>16.4</b>	<b>24.2</b>	<b>49.9</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	0.9	0.9	0.7	0.3
Safety Costs Not Internalized by Drivers	-2.0	-3.5	-4.1	-6.1
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-1.1</b>	<b>-2.5</b>	<b>-3.4</b>	<b>-5.8</b>
<b>Total Incremental Social Costs</b>	<b>28.8</b>	<b>28.7</b>	<b>28.5</b>	<b>27.9</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	2.8	4.4	6.9	14.0
Benefits from Additional Driving	-7.9	-12.8	-21.6	-46.4
Less Frequent Refueling	-0.6	-0.8	-1.2	-1.9
<b>Subtotal - Incremental Private Benefits</b>	<b>-5.7</b>	<b>-9.2</b>	<b>-15.9</b>	<b>-34.3</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.7	-1.0	-1.4	-2.4
Reduced Climate Damages, Average SCC	1.3	2.2	3.5	7.4
Reduced Health Damages	-0.4	-0.6	-0.9	-1.8
<b>Subtotal - Incremental External Benefits</b>	<b>0.3</b>	<b>0.6</b>	<b>1.2</b>	<b>3.2</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>11.5</b>	<b>18.5</b>	<b>30.4</b>	<b>63.1</b>
<b>Net Incremental Social Benefits, Average SCC</b>	<b>-1.8</b>	<b>-3.3</b>	<b>-1.8</b>	<b>-2.6</b>

**Table 211 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Total Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Total Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	19.2	43.3	78.4	221.5
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.4
Safety Costs Internalized by Drivers	4.5	9.4	16.8	36.9
<b>Subtotal - Incremental Private Costs</b>	<b>23.7</b>	<b>52.7</b>	<b>95.3</b>	<b>258.7</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	1.2	1.4	1.0	-2.6
Safety Costs Not Internalized by Drivers	-4.7	-9.7	-16.8	-36.3
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-3.4</b>	<b>-8.3</b>	<b>-15.8</b>	<b>-38.9</b>
<b>Total Incremental Social Costs</b>	<b>50.7</b>	<b>50.4</b>	<b>49.6</b>	<b>46.7</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	7.2	13.5	29.4	84.9
Benefits from Additional Driving	-24.8	-46.9	-103.2	-306.0
Less Frequent Refueling	-2.2	-3.1	-5.1	-9.1
<b>Subtotal - Incremental Private Benefits</b>	<b>-19.8</b>	<b>-36.5</b>	<b>-78.8</b>	<b>-230.2</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-2.5	-3.8	-6.4	-13.5
Reduced Climate Damages, Average SCC	28.1	54.8	118.5	343.6
Reduced Health Damages	-0.8	-1.3	-3.4	-10.4
<b>Subtotal - Incremental External Benefits</b>	<b>24.8</b>	<b>49.6</b>	<b>108.8</b>	<b>319.7</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>35.9</b>	<b>65.4</b>	<b>137.4</b>	<b>390.3</b>
<b>Net Incremental Social Benefits, Average SCC</b>				
<b>Net Incremental Social Benefits, Average SCC</b>	<b>2.9</b>	<b>-1.5</b>	<b>12.4</b>	<b>46.8</b>

**Table 212 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Passenger Car Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Passenger Car Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	9.9	14.4	20.3	55.8
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	1.1	1.3	3.4	11.0
<b>Subtotal - Incremental Private Costs</b>	<b>11.1</b>	<b>15.7</b>	<b>23.7</b>	<b>67.0</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	-2.9	-2.7	-2.1	1.0
Safety Costs Not Internalized by Drivers	-1.2	-1.0	-2.9	-9.5
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-4.0</b>	<b>-3.7</b>	<b>-4.9</b>	<b>-8.5</b>
<b>Total Incremental Social Costs</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>14.4</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	2.8	2.9	4.4	14.7
Benefits from Additional Driving	-11.1	-12.2	-15.3	-49.7
Less Frequent Refueling	-0.2	-0.2	-0.3	-0.9
<b>Subtotal - Incremental Private Benefits</b>	<b>-8.5</b>	<b>-9.5</b>	<b>-11.2</b>	<b>-35.8</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.4	-0.5	-0.7	-2.4
Reduced Climate Damages, Average SCC	12.1	13.2	18.5	61.8
Reduced Health Damages	-0.2	-0.2	-0.5	-1.8
<b>Subtotal - Incremental External Benefits</b>	<b>11.5</b>	<b>12.5</b>	<b>17.3</b>	<b>57.6</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>14.0</b>	<b>15.5</b>	<b>19.9</b>	<b>65.2</b>
<b>Net Incremental Social Benefits, Average SCC</b>				
	<b>7.2</b>	<b>3.2</b>	<b>-2.5</b>	<b>-17.3</b>

**Table 213 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Light Truck Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Light Truck Fleet Produced Through MY 2050 (2021\$ BILLIONS), 3% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	9.3	28.9	58.1	165.6
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.2
Safety Costs Internalized by Drivers	3.4	8.1	13.5	25.9
Subtotal - Incremental Private Costs	12.6	37.0	71.6	191.8
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	4.1	4.2	3.0	-3.7
Safety Costs Not Internalized by Drivers	-3.5	-8.7	-13.9	-26.8
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
Subtotal - Incremental External Costs	0.6	-4.5	-10.9	-30.4
Total Incremental Social Costs	35.6	35.3	34.6	32.3
<b>Private Benefits</b>				
Reduced Fuel Costs	4.4	10.6	25.0	70.1
Benefits from Additional Driving	-13.6	-34.7	-87.9	-256.3
Less Frequent Refueling	-2.0	-2.9	-4.8	-8.2
Subtotal - Incremental Private Benefits	-11.2	-27.0	-67.7	-194.3
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-2.1	-3.3	-5.7	-11.2
Reduced Climate Damages, Average SCC	16.0	41.6	100.1	281.8
Reduced Health Damages	-0.6	-1.1	-2.9	-8.6
Subtotal - Incremental External Benefits	13.3	37.1	91.5	262.1
Total Incremental Social Benefits, Average SCC	21.9	49.8	117.5	325.1
<b>Net Incremental Social Benefits, Average SCC</b>				
Net Incremental Social Benefits, Average SCC	-4.3	-4.7	14.9	64.1

**Table 214 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Total Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Total Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	13.0	27.1	47.6	130.6
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.2
Safety Costs Internalized by Drivers	2.6	4.9	8.6	18.3
<b>Subtotal - Incremental Private Costs</b>	<b>15.6</b>	<b>32.0</b>	<b>56.2</b>	<b>149.1</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	0.6	0.7	0.5	-1.0
Safety Costs Not Internalized by Drivers	-2.7	-5.0	-8.6	-18.0
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-2.1</b>	<b>-4.3</b>	<b>-8.0</b>	<b>-19.0</b>
<b>Total Incremental Social Costs</b>	<b>50.7</b>	<b>50.4</b>	<b>49.6</b>	<b>46.7</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	4.1	7.1	14.9	41.5
Benefits from Additional Driving	-13.4	-24.0	-50.9	-146.5
Less Frequent Refueling	-1.1	-1.6	-2.5	-4.5
<b>Subtotal - Incremental Private Benefits</b>	<b>-10.5</b>	<b>-18.5</b>	<b>-38.5</b>	<b>-109.6</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-1.3	-1.9	-3.2	-6.6
Reduced Climate Damages, Average SCC	27.3	53.2	115.2	333.3
Reduced Health Damages	-0.4	-0.7	-1.6	-4.8
<b>Subtotal - Incremental External Benefits</b>	<b>25.6</b>	<b>50.6</b>	<b>110.4</b>	<b>321.9</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>20.1</b>	<b>35.3</b>	<b>72.1</b>	<b>200.1</b>
<b>Net Incremental Social Benefits, Average SCC</b>				
<b>Net Incremental Social Benefits, Average SCC</b>	<b>-0.4</b>	<b>-4.1</b>	<b>1.0</b>	<b>9.5</b>



**Table 215 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Passenger Car Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Passenger Car Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	5.9	8.4	12.0	33.0
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	0.6	0.6	1.7	5.4
<b>Subtotal - Incremental Private Costs</b>	<b>6.6</b>	<b>9.0</b>	<b>13.8</b>	<b>38.5</b>
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	-1.4	-1.3	-0.9	0.6
Safety Costs Not Internalized by Drivers	-0.6	-0.5	-1.5	-4.8
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
<b>Subtotal - Incremental External Costs</b>	<b>-2.0</b>	<b>-1.8</b>	<b>-2.4</b>	<b>-4.2</b>
<b>Total Incremental Social Costs</b>	<b>15.0</b>	<b>15.0</b>	<b>15.0</b>	<b>14.4</b>
<b>Private Benefits</b>				
Reduced Fuel Costs	1.4	1.4	2.2	7.2
Benefits from Additional Driving	-5.4	-5.8	-7.6	-23.8
Less Frequent Refueling	-0.1	-0.1	-0.2	-0.4
<b>Subtotal - Incremental Private Benefits</b>	<b>-4.1</b>	<b>-4.5</b>	<b>-5.5</b>	<b>-17.0</b>
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-0.2	-0.3	-0.4	-1.2
Reduced Climate Damages, Average SCC	11.7	12.8	17.8	59.3
Reduced Health Damages	-0.1	-0.1	-0.2	-0.8
<b>Subtotal - Incremental External Benefits</b>	<b>11.4</b>	<b>12.4</b>	<b>17.2</b>	<b>57.3</b>
<b>Total Incremental Social Benefits, Average SCC</b>	<b>7.3</b>	<b>7.9</b>	<b>10.5</b>	<b>33.5</b>
<b>Net Incremental Social Benefits, Average SCC</b>				
<b>Net Incremental Social Benefits, Average SCC</b>	<b>2.9</b>	<b>0.5</b>	<b>-2.8</b>	<b>-12.6</b>

**Table 216 - Incremental Benefits and Costs for Calendar Years 2022-2050 for Light Truck Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC**

<b>Incremental Benefits and Costs for Calendar Years 2022-2050 for Light Truck Fleet Produced Through MY 2050 (2021\$ BILLIONS), 7% Percent Discount Rate, by Alternative, Average SCC</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Private Costs</b>				
Technology Costs to Increase Fuel Economy	7.1	18.8	35.6	97.6
Increased Maintenance and Repair Costs	0.0	0.0	0.0	0.0
Sacrifice in Other Vehicle Attributes	0.0	0.0	0.0	0.0
Consumer Surplus Loss from Reduced New Vehicle Sales	0.0	0.0	0.0	0.1
Safety Costs Internalized by Drivers	2.0	4.3	6.9	12.8
Subtotal - Incremental Private Costs	9.1	23.0	42.5	110.6
<b>External Costs</b>				
Congestion and Noise Costs from Rebound-Effect Driving	2.0	2.0	1.5	-1.6
Safety Costs Not Internalized by Drivers	-2.1	-4.6	-7.1	-13.2
Loss in Fuel Tax Revenue	0.0	0.0	0.0	0.0
Subtotal - Incremental External Costs	0.0	-2.5	-5.6	-14.8
Total Incremental Social Costs	35.6	35.3	34.6	32.3
<b>Private Benefits</b>				
Reduced Fuel Costs	2.7	5.7	12.6	34.2
Benefits from Additional Driving	-7.9	-18.2	-43.3	-122.7
Less Frequent Refueling	-1.0	-1.4	-2.4	-4.1
Subtotal - Incremental Private Benefits	-6.3	-13.9	-33.0	-92.5
<b>External Benefits</b>				
Reduction in Petroleum Market Externality	-1.1	-1.7	-2.8	-5.4
Reduced Climate Damages, Average SCC	15.6	40.4	97.4	274.0
Reduced Health Damages	-0.3	-0.6	-1.4	-4.0
Subtotal - Incremental External Benefits	14.2	38.2	93.2	264.6
Total Incremental Social Benefits, Average SCC	12.8	27.3	61.6	166.6
<b>Net Incremental Social Benefits, Average SCC</b>				
Net Incremental Social Benefits, Average SCC	-3.3	-4.6	3.8	22.1

## Technology Costs and Civil Penalties per Vehicle, by Model Year

**Table 217 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,891	2,098	2,250	2,363	2,514	2,547
Alternative PC1LT3	2,117	2,322	2,466	2,513	2,679	2,703
Alternative PC2LT4	2,229	2,454	2,613	2,668	2,822	2,845
Alternative PC3LT5	2,319	2,593	2,773	2,910	3,081	3,070
Alternative PC6LT8	2,529	3,126	3,493	3,909	4,093	4,181

**Table 218 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,335	1,428	1,610	1,798	1,863	2,097
Alternative PC1LT3	1,523	1,635	1,813	1,954	2,030	2,307
Alternative PC2LT4	1,518	1,668	1,873	2,037	2,110	2,376
Alternative PC3LT5	1,583	1,792	1,981	2,147	2,279	2,508
Alternative PC6LT8	1,833	2,480	2,859	2,954	3,025	3,233

**Table 219 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,150	2,409	2,544	2,625	2,820	2,759
Alternative PC1LT3	2,395	2,639	2,766	2,771	2,983	2,890
Alternative PC2LT4	2,563	2,818	2,952	2,959	3,154	3,066
Alternative PC3LT5	2,664	2,964	3,136	3,261	3,456	3,334
Alternative PC6LT8	2,855	3,423	3,782	4,350	4,594	4,629

**Table 220 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,482	1,594	1,498	1,594	1,522	2,238
Alternative PC1LT3	1,481	1,637	1,802	1,983	2,000	2,357
Alternative PC2LT4	1,482	1,749	1,920	2,148	2,215	2,461
Alternative PC3LT5	1,483	1,862	2,047	2,326	2,436	2,166
Alternative PC6LT8	1,498	2,251	2,490	2,943	3,227	3,575

**Table 221 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,801	3,220	3,292	3,068	2,872	2,698
Alternative PC1LT3	3,047	3,369	3,428	3,193	2,990	2,787
Alternative PC2LT4	3,216	3,564	3,641	3,389	3,171	2,980
Alternative PC3LT5	3,309	3,627	4,082	3,800	3,567	3,383
Alternative PC6LT8	3,958	5,210	5,833	5,453	5,126	4,802

**Table 222 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,974	1,848	1,989	2,004	2,980	2,910
Alternative PC1LT3	2,838	2,668	2,747	2,723	3,712	3,602
Alternative PC2LT4	2,838	2,689	2,758	2,735	3,727	3,619
Alternative PC3LT5	3,115	2,985	3,077	3,058	4,030	3,840
Alternative PC6LT8	3,215	3,086	3,227	4,273	4,821	4,917



**Table 223 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,058	2,132	2,033	1,829	1,824	1,946
Alternative PC1LT3	2,094	2,166	2,066	1,869	1,863	2,200
Alternative PC2LT4	2,105	2,195	2,094	1,897	1,889	2,179
Alternative PC3LT5	2,316	2,437	2,187	2,448	2,434	2,525
Alternative PC6LT8	2,317	2,781	2,755	2,869	2,849	3,130

**Table 224 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,492	2,237	2,033	1,877	2,293	2,613
Alternative PC1LT3	1,586	2,421	2,220	2,051	2,517	2,824
Alternative PC2LT4	1,776	2,718	2,496	2,310	2,728	3,104
Alternative PC3LT5	1,776	2,800	2,591	2,419	2,879	3,231
Alternative PC6LT8	2,875	5,554	5,205	4,905	5,341	5,584

**Table 225 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,132	1,051	1,772	1,651	2,260	2,507
Alternative PC1LT3	1,135	1,053	1,861	1,742	2,491	2,700
Alternative PC2LT4	1,134	1,053	2,011	2,022	2,770	2,961
Alternative PC3LT5	1,134	1,132	2,344	2,324	3,076	3,246
Alternative PC6LT8	1,557	1,912	3,293	3,540	4,136	4,325

**Table 226 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,724	1,582	1,402	1,539	1,393	1,629
Alternative PC1LT3	1,726	1,586	1,406	1,552	1,794	2,078
Alternative PC2LT4	1,726	1,586	1,406	1,589	2,228	2,585
Alternative PC3LT5	1,727	1,586	1,406	2,400	2,695	2,664
Alternative PC6LT8	1,726	1,586	2,556	3,806	4,207	3,898

**Table 227 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC1LT3	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC2LT4	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC3LT5	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC6LT8	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543

**Table 228 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	-62
Alternative PC1LT3	0	0	0	0	0	-62
Alternative PC2LT4	0	0	0	0	0	-62
Alternative PC3LT5	0	0	0	0	0	-62
Alternative PC6LT8	0	0	0	0	0	-62

**Table 229 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,887	1,771	3,196	3,829	3,591	3,295
Alternative PC1LT3	1,915	1,803	3,223	3,856	3,618	3,328
Alternative PC2LT4	5,754	5,536	8,114	8,591	8,104	7,556
Alternative PC3LT5	5,766	5,549	8,128	8,604	8,116	7,568
Alternative PC6LT8	6,875	6,620	8,222	8,745	8,257	7,779

**Table 230 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,301	2,671	2,337	3,381	3,249	3,062
Alternative PC1LT3	2,285	2,656	2,429	3,433	3,294	3,100
Alternative PC2LT4	2,361	2,860	2,611	3,620	3,555	3,340
Alternative PC3LT5	2,477	2,831	2,584	3,587	3,526	3,314
Alternative PC6LT8	2,598	3,023	2,993	4,065	4,035	3,745



**Table 231 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,102	1,977	1,827	1,700	2,618	2,411
Alternative PC1LT3	2,102	1,978	1,828	1,701	2,841	2,617
Alternative PC2LT4	2,102	1,978	1,828	2,039	1,986	1,858
Alternative PC3LT5	2,102	1,978	1,887	2,439	3,796	3,549
Alternative PC6LT8	2,102	1,978	2,747	4,196	3,869	3,922

**Table 232 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,250	3,095	2,999	2,923	2,750	3,127
Alternative PC1LT3	2,282	3,127	3,028	2,949	2,795	3,167
Alternative PC2LT4	2,280	3,183	3,086	3,022	2,869	3,253
Alternative PC3LT5	2,280	3,409	3,180	3,131	3,069	3,441
Alternative PC6LT8	2,283	3,438	3,656	4,338	4,112	4,409

**Table 233 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,645	2,564	3,159	3,552	3,434	3,330
Alternative PC1LT3	3,260	3,147	3,653	3,458	3,335	3,237
Alternative PC2LT4	3,511	3,381	3,839	3,630	3,508	3,437
Alternative PC3LT5	3,677	3,536	3,995	4,063	3,943	3,940
Alternative PC6LT8	3,822	3,672	4,409	5,383	5,197	5,543

**Table 234 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,554	2,683	2,594	2,450	2,242	2,059
Alternative PC1LT3	1,473	2,724	2,631	2,485	2,306	2,118
Alternative PC2LT4	1,472	2,724	2,631	2,484	2,306	2,118
Alternative PC3LT5	1,472	2,724	2,646	2,573	2,393	2,204
Alternative PC6LT8	1,472	2,725	3,178	3,596	3,370	3,148

**Table 235 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 236 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,247	1,216	1,575	2,018	2,160	2,136
Alternative PC1LT3	1,255	1,251	1,608	2,027	2,169	2,095
Alternative PC2LT4	1,255	1,251	1,608	2,026	2,169	2,095
Alternative PC3LT5	1,254	1,407	1,653	2,078	2,238	2,195
Alternative PC6LT8	1,256	1,637	1,928	2,169	3,059	3,147

**Table 237 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	792	712	571	2,058	1,926	2,478
Alternative PC1LT3	893	813	734	2,176	2,043	2,547
Alternative PC2LT4	893	812	734	2,191	2,058	2,571
Alternative PC3LT5	892	812	734	2,212	2,081	2,627
Alternative PC6LT8	893	813	734	2,240	2,226	2,624

**Table 238 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Total Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,841	2,221	2,041	2,633	2,988	3,195
Alternative PC1LT3	1,889	2,286	2,128	3,014	3,303	3,497
Alternative PC2LT4	1,889	2,287	2,127	3,108	3,391	3,577
Alternative PC3LT5	1,890	2,287	2,128	2,974	3,293	3,483
Alternative PC6LT8	1,934	2,725	3,407	4,174	4,426	4,542



**Table 239 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,896	2,201	2,087	2,194	2,037	1,843
Alternative PC1LT3	1,897	2,201	2,087	2,197	2,040	1,845
Alternative PC2LT4	1,897	2,201	2,087	2,198	2,040	1,845
Alternative PC3LT5	1,897	2,201	2,087	2,197	2,040	1,845
Alternative PC6LT8	1,897	2,295	2,168	2,248	2,085	2,461

**Table 240 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,606	1,475	1,315	1,118	1,024	1,114
Alternative PC1LT3	3,443	3,181	2,874	2,553	2,358	2,130
Alternative PC2LT4	2,061	1,898	1,702	1,475	1,357	1,206
Alternative PC3LT5	1,956	1,797	1,605	1,382	1,365	1,529
Alternative PC6LT8	4,423	4,112	3,752	3,406	3,173	3,106

**Table 241 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,909	1,805	3,107	3,154	3,281	3,028
Alternative PC1LT3	2,914	2,784	3,994	3,730	4,000	3,729
Alternative PC2LT4	2,915	2,786	3,946	3,687	3,978	3,713
Alternative PC3LT5	2,915	2,786	4,162	3,888	4,150	3,872
Alternative PC6LT8	2,915	2,821	4,435	4,405	4,635	4,323

**Table 242 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	972	1,386	1,480	1,313	1,259	1,781
Alternative PC1LT3	1,045	1,455	1,547	1,382	1,326	2,307
Alternative PC2LT4	1,072	1,519	1,608	1,440	1,379	2,149
Alternative PC3LT5	1,519	2,034	1,805	1,620	1,564	2,105
Alternative PC6LT8	1,518	2,747	2,580	2,334	2,236	2,621

**Table 243 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,720	1,674	1,530	1,426	1,419	2,246
Alternative PC1LT3	1,835	1,956	1,808	1,685	1,673	2,485
Alternative PC2LT4	2,181	2,505	2,319	2,163	2,052	2,994
Alternative PC3LT5	2,181	2,703	2,512	2,354	2,368	3,238
Alternative PC6LT8	3,208	5,580	5,249	4,961	5,046	5,831

**Table 244 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	879	813	1,716	1,616	2,390	3,032
Alternative PC1LT3	883	816	1,654	1,569	2,443	3,036
Alternative PC2LT4	883	816	1,590	1,781	2,616	3,200
Alternative PC3LT5	883	816	1,816	1,980	2,852	3,425
Alternative PC6LT8	1,705	1,613	3,092	3,239	3,914	4,387

**Table 245 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,394	3,142	2,817	2,610	2,436	2,212
Alternative PC1LT3	3,392	3,149	2,832	2,623	2,449	2,257
Alternative PC2LT4	3,395	3,146	2,825	2,811	2,636	2,556
Alternative PC3LT5	3,394	3,145	2,825	2,811	2,637	3,311
Alternative PC6LT8	3,392	3,141	2,823	2,809	4,466	5,615

**Table 246 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC1LT3	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC2LT4	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC3LT5	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC6LT8	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543



**Table 247 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	-62
Alternative PC1LT3	0	0	0	0	0	-62
Alternative PC2LT4	0	0	0	0	0	-62
Alternative PC3LT5	0	0	0	0	0	-62
Alternative PC6LT8	0	0	0	0	0	-62

**Table 248 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,519	1,405	3,723	3,410	3,167	2,861
Alternative PC1LT3	1,613	1,528	3,749	3,436	3,193	2,888
Alternative PC2LT4	1,613	1,589	14,394	13,733	12,929	12,056
Alternative PC3LT5	1,613	1,589	14,397	13,735	12,930	12,058
Alternative PC6LT8	1,613	1,838	14,038	13,444	12,688	11,880

**Table 249 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,839	1,676	1,435	1,568	1,716	1,812
Alternative PC1LT3	1,911	1,743	1,621	1,704	1,836	1,915
Alternative PC2LT4	2,081	1,897	1,755	1,873	2,195	2,250
Alternative PC3LT5	2,245	2,046	1,890	1,977	2,290	2,332
Alternative PC6LT8	2,254	2,054	2,415	2,410	2,825	2,715

**Table 250 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,186	2,051	1,877	1,729	1,546	1,415
Alternative PC1LT3	2,187	2,052	1,877	1,729	1,549	1,418
Alternative PC2LT4	2,186	2,052	1,877	1,729	1,546	1,472
Alternative PC3LT5	2,186	2,052	1,877	1,729	1,962	1,856
Alternative PC6LT8	2,186	2,052	1,877	3,951	3,378	3,810

**Table 251 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,390	1,296	1,192	1,392	1,357	2,403
Alternative PC1LT3	1,449	1,350	1,239	1,435	1,436	2,476
Alternative PC2LT4	1,449	1,424	1,313	1,534	1,536	2,599
Alternative PC3LT5	1,449	1,704	1,570	1,815	1,982	3,012
Alternative PC6LT8	1,449	1,913	2,642	2,842	2,767	3,727

**Table 252 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,642	3,443	3,448	3,544	4,045	4,013
Alternative PC1LT3	3,642	3,510	3,807	3,849	4,272	4,225
Alternative PC2LT4	3,642	3,509	3,455	3,521	4,073	4,103
Alternative PC3LT5	3,642	3,509	3,747	3,889	4,550	4,501
Alternative PC6LT8	3,642	3,512	4,061	4,561	5,115	4,836

**Table 253 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,838	2,747	3,569	3,652	3,354	3,110
Alternative PC1LT3	1,803	2,747	3,570	3,652	3,350	3,105
Alternative PC2LT4	1,802	2,747	3,570	3,652	3,350	3,105
Alternative PC3LT5	1,802	2,747	3,570	3,652	3,350	3,104
Alternative PC6LT8	1,802	2,748	3,570	3,876	3,567	3,360

**Table 254 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0



**Table 255 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	937	895	1,070	2,253	2,250	2,071
Alternative PC1LT3	996	992	1,162	2,278	2,275	2,076
Alternative PC2LT4	996	992	1,162	2,278	2,275	2,076
Alternative PC3LT5	996	992	1,094	2,226	2,280	2,085
Alternative PC6LT8	1,000	1,401	1,726	2,317	2,361	2,243

**Table 256 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	424	382	202	258	297	231
Alternative PC1LT3	424	382	202	259	298	232
Alternative PC2LT4	424	382	202	311	350	321
Alternative PC3LT5	424	382	202	397	438	527
Alternative PC6LT8	424	382	202	397	883	2,081

**Table 257 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Passenger Car Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,014	3,222	2,896	2,624	2,868	2,569
Alternative PC1LT3	2,014	3,224	2,906	2,634	2,789	2,494
Alternative PC2LT4	2,014	3,222	2,904	2,633	2,788	2,492
Alternative PC3LT5	2,014	3,222	2,904	2,633	2,876	2,578
Alternative PC6LT8	2,142	4,486	4,065	3,706	3,870	3,500

**Table 258 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,107	1,049	973	1,057	1,054	2,599
Alternative PC1LT3	1,107	1,133	1,549	1,792	1,964	2,823
Alternative PC2LT4	1,107	1,346	1,773	2,103	2,373	3,021
Alternative PC3LT5	1,107	1,558	2,012	2,440	2,793	2,458
Alternative PC6LT8	1,139	2,211	2,774	3,563	4,263	4,592

**Table 259 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,921	3,393	3,488	3,262	3,059	2,858
Alternative PC1LT3	3,007	3,387	3,482	3,256	3,053	2,853
Alternative PC2LT4	3,332	3,729	3,831	3,578	3,353	3,159
Alternative PC3LT5	3,445	3,808	4,326	4,039	3,788	3,569
Alternative PC6LT8	3,911	5,318	6,036	5,656	5,322	4,974

**Table 260 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,990	1,859	1,711	1,717	2,904	2,881
Alternative PC1LT3	2,819	2,639	2,439	2,474	3,639	3,570
Alternative PC2LT4	2,819	2,665	2,465	2,500	3,665	3,595
Alternative PC3LT5	3,166	3,035	2,809	2,852	3,999	3,831
Alternative PC6LT8	3,290	3,151	2,931	4,241	4,868	5,068

**Table 261 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,032	2,794	2,521	2,287	2,334	2,095
Alternative PC1LT3	3,032	2,794	2,521	2,298	2,344	2,104
Alternative PC2LT4	3,032	2,794	2,521	2,300	2,345	2,206
Alternative PC3LT5	3,032	2,794	2,521	3,178	3,212	2,904
Alternative PC6LT8	3,032	2,811	2,907	3,341	3,399	3,590

**Table 262 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,219	2,907	2,627	2,413	3,349	3,058
Alternative PC1LT3	1,289	2,971	2,704	2,484	3,531	3,232
Alternative PC2LT4	1,289	2,971	2,704	2,484	3,539	3,238
Alternative PC3LT5	1,289	2,915	2,683	2,497	3,493	3,223
Alternative PC6LT8	2,475	5,524	5,153	4,839	5,698	5,283



**Table 263 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,400	1,300	1,830	1,687	2,122	1,949
Alternative PC1LT3	1,400	1,300	2,075	1,921	2,542	2,343
Alternative PC2LT4	1,400	1,300	2,445	2,271	2,933	2,708
Alternative PC3LT5	1,400	1,460	2,888	2,681	3,312	3,056
Alternative PC6LT8	1,400	2,221	3,499	3,852	4,370	4,259

**Table 264 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,689	1,550	1,372	1,516	1,371	1,616
Alternative PC1LT3	1,691	1,553	1,377	1,530	1,780	2,075
Alternative PC2LT4	1,691	1,553	1,377	1,563	2,220	2,586
Alternative PC3LT5	1,691	1,553	1,377	2,392	2,696	2,651
Alternative PC6LT8	1,691	1,553	2,551	3,826	4,202	3,861

**Table 265 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 266 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 267 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,938	1,822	3,124	3,887	3,650	3,357
Alternative PC1LT3	1,957	1,841	3,151	3,914	3,677	3,389
Alternative PC2LT4	6,334	6,082	7,256	7,884	7,430	6,924
Alternative PC3LT5	6,349	6,096	7,270	7,898	7,444	6,937
Alternative PC6LT8	7,611	7,277	7,429	8,097	7,635	7,200

**Table 268 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,654	3,423	3,014	4,751	4,424	4,024
Alternative PC1LT3	2,569	3,344	3,032	4,732	4,406	4,009
Alternative PC2LT4	2,575	3,586	3,250	4,930	4,591	4,175
Alternative PC3LT5	2,654	3,423	3,104	4,797	4,468	4,066
Alternative PC6LT8	2,861	3,748	3,423	5,311	4,962	4,539

**Table 269 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,019	1,906	1,779	1,672	3,669	3,393
Alternative PC1LT3	2,020	1,907	1,780	1,674	4,102	3,793
Alternative PC2LT4	2,020	1,907	1,781	2,338	2,415	2,235
Alternative PC3LT5	2,020	1,907	1,896	3,122	5,585	5,206
Alternative PC6LT8	2,020	1,907	3,574	4,432	4,349	4,031

**Table 270 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,181	5,022	4,922	4,562	4,263	3,916
Alternative PC1LT3	3,181	5,023	4,923	4,562	4,264	3,917
Alternative PC2LT4	3,181	5,060	4,962	4,603	4,308	3,964
Alternative PC3LT5	3,181	5,233	4,886	4,533	4,243	3,906
Alternative PC6LT8	3,183	5,058	4,724	5,933	5,571	5,153



**Table 271 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,522	2,456	3,124	3,553	3,358	3,245
Alternative PC1LT3	3,214	3,103	3,634	3,410	3,220	3,115
Alternative PC2LT4	3,495	3,366	3,885	3,643	3,439	3,354
Alternative PC3LT5	3,681	3,540	4,025	4,084	3,868	3,871
Alternative PC6LT8	3,844	3,691	4,451	5,482	5,207	5,631

**Table 272 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,512	2,674	2,453	2,275	2,078	1,902
Alternative PC1LT3	1,424	2,721	2,496	2,315	2,153	1,972
Alternative PC2LT4	1,423	2,721	2,496	2,315	2,153	1,972
Alternative PC3LT5	1,423	2,721	2,513	2,416	2,252	2,070
Alternative PC6LT8	1,424	2,722	3,122	3,555	3,341	3,117

**Table 273 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 274 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,416	1,390	1,846	1,891	2,110	2,171
Alternative PC1LT3	1,396	1,390	1,846	1,891	2,110	2,105
Alternative PC2LT4	1,396	1,390	1,846	1,891	2,111	2,105
Alternative PC3LT5	1,396	1,632	1,953	1,998	2,216	2,255
Alternative PC6LT8	1,396	1,763	2,035	2,089	3,440	3,646

**Table 275 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	927	831	704	2,709	2,524	3,306
Alternative PC1LT3	1,064	968	924	2,865	2,680	3,396
Alternative PC2LT4	1,064	967	924	2,866	2,680	3,397
Alternative PC3LT5	1,064	967	924	2,865	2,680	3,396
Alternative PC6LT8	1,064	967	924	2,904	2,718	2,824

**Table 276 - Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Technology and Civil Penalties Costs (\$), Light Truck Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,747	1,681	1,583	2,637	3,053	3,539
Alternative PC1LT3	1,822	1,783	1,714	3,218	3,583	4,045
Alternative PC2LT4	1,822	1,783	1,714	3,362	3,719	4,171
Alternative PC3LT5	1,822	1,783	1,714	3,157	3,520	3,978
Alternative PC6LT8	1,822	1,783	3,059	4,425	4,729	5,116

## Regulatory Costs per Vehicle, by Model Year

Table 277 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Total)

Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Total)						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,130	2,330	2,473	2,576	2,715	2,734
Alternative PC1LT3	2,357	2,555	2,690	2,726	2,880	2,891
Alternative PC2LT4	2,469	2,687	2,837	2,881	3,023	3,032
Alternative PC3LT5	2,558	2,825	2,996	3,122	3,282	3,258
Alternative PC6LT8	2,769	3,359	3,717	4,121	4,294	4,368

**Table 278 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,468	1,553	1,728	1,909	1,967	2,183
Alternative PC1LT3	1,655	1,762	1,940	2,076	2,146	2,392
Alternative PC2LT4	1,650	1,799	2,005	2,167	2,229	2,461
Alternative PC3LT5	1,715	1,932	2,117	2,283	2,401	2,593
Alternative PC6LT8	1,965	2,629	2,935	3,187	3,154	3,331



**Table 279 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Total)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,440	2,691	2,816	2,884	3,067	2,995
Alternative PC1LT3	2,684	2,920	3,033	3,025	3,223	3,125
Alternative PC2LT4	2,852	3,097	3,218	3,209	3,394	3,301
Alternative PC3LT5	2,954	3,239	3,399	3,509	3,694	3,570
Alternative PC6LT8	3,144	3,694	4,073	4,553	4,829	4,858

**Table 280 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,634	1,723	1,626	1,712	1,621	2,323
Alternative PC1LT3	1,633	1,767	1,930	2,101	2,099	2,443
Alternative PC2LT4	1,634	1,879	2,049	2,266	2,315	2,547
Alternative PC3LT5	1,634	1,992	2,176	2,444	2,536	2,252
Alternative PC6LT8	1,650	2,381	2,619	3,061	3,326	3,660

**Table 281 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,064	3,480	3,549	3,320	3,115	2,930
Alternative PC1LT3	3,311	3,629	3,684	3,445	3,233	3,019
Alternative PC2LT4	3,479	3,824	3,897	3,641	3,414	3,212
Alternative PC3LT5	3,573	3,887	4,338	4,053	3,810	3,615
Alternative PC6LT8	4,222	5,470	6,089	5,705	5,369	5,034

**Table 282 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,215	2,086	2,223	2,235	3,207	3,129
Alternative PC1LT3	3,079	2,906	2,982	2,955	3,939	3,821
Alternative PC2LT4	3,080	2,927	2,993	2,967	3,955	3,837
Alternative PC3LT5	3,356	3,223	3,312	3,289	4,257	4,058
Alternative PC6LT8	3,456	3,324	3,462	4,505	5,048	5,135

**Table 283 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,318	2,381	2,265	2,041	2,019	2,088
Alternative PC1LT3	2,354	2,416	2,298	2,081	2,057	2,342
Alternative PC2LT4	2,364	2,445	2,326	2,109	2,084	2,321
Alternative PC3LT5	2,575	2,686	2,418	2,660	2,628	2,667
Alternative PC6LT8	2,576	3,031	2,986	3,080	3,043	3,271

**Table 284 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,657	2,396	2,185	2,022	2,432	2,746
Alternative PC1LT3	1,752	2,580	2,372	2,196	2,656	2,957
Alternative PC2LT4	1,941	2,878	2,648	2,456	2,867	3,238
Alternative PC3LT5	1,941	2,959	2,743	2,565	3,018	3,365
Alternative PC6LT8	3,040	5,714	5,358	5,051	5,480	5,717

**Table 285 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,207	1,125	1,845	1,721	2,327	2,572
Alternative PC1LT3	1,210	1,127	1,934	1,811	2,558	2,764
Alternative PC2LT4	1,209	1,127	2,084	2,091	2,837	3,026
Alternative PC3LT5	1,209	1,205	2,416	2,393	3,143	3,310
Alternative PC6LT8	1,632	1,985	3,365	3,609	4,202	4,390

**Table 286 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,952	1,807	1,622	1,756	1,592	1,813
Alternative PC1LT3	1,954	1,810	1,627	1,770	1,992	2,262
Alternative PC2LT4	1,954	1,810	1,627	1,806	2,427	2,769
Alternative PC3LT5	1,954	1,810	1,627	2,618	2,893	2,848
Alternative PC6LT8	1,954	1,810	2,777	4,023	4,406	4,082



**Table 287 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC1LT3	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC2LT4	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC3LT5	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC6LT8	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543

**Table 288 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	-62
Alternative PC1LT3	0	0	0	0	0	-62
Alternative PC2LT4	0	0	0	0	0	-62
Alternative PC3LT5	0	0	0	0	0	-62
Alternative PC6LT8	0	0	0	0	0	-62

**Table 289 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,184	2,064	3,484	4,106	3,858	3,555
Alternative PC1LT3	2,213	2,096	3,511	4,134	3,885	3,587
Alternative PC2LT4	6,052	5,830	8,402	8,868	8,371	7,815
Alternative PC3LT5	6,064	5,842	8,416	8,882	8,384	7,827
Alternative PC6LT8	7,173	6,913	8,510	9,023	8,524	8,039

**Table 290 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,671	3,053	2,749	3,786	3,643	3,448
Alternative PC1LT3	2,654	3,039	2,842	3,837	3,689	3,487
Alternative PC2LT4	2,730	3,243	3,024	4,025	3,950	3,726
Alternative PC3LT5	2,846	3,213	2,997	3,992	3,921	3,700
Alternative PC6LT8	2,968	3,405	3,406	4,469	4,430	4,131

**Table 291 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,164	2,038	1,887	1,759	2,681	2,476
Alternative PC1LT3	2,164	2,039	1,887	1,760	2,904	2,682
Alternative PC2LT4	2,164	2,039	1,888	2,099	2,049	1,923
Alternative PC3LT5	2,164	2,039	1,947	2,499	3,859	3,614
Alternative PC6LT8	2,164	2,039	2,807	4,256	3,931	3,987

**Table 292 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,464	3,306	3,204	3,123	2,943	3,315
Alternative PC1LT3	2,496	3,338	3,234	3,148	2,988	3,355
Alternative PC2LT4	2,494	3,393	3,292	3,221	3,062	3,442
Alternative PC3LT5	2,493	3,620	3,385	3,330	3,262	3,629
Alternative PC6LT8	2,496	3,648	3,861	4,537	4,305	4,597

**Table 293 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,937	2,841	3,421	3,799	3,666	3,551
Alternative PC1LT3	3,553	3,424	3,915	3,704	3,567	3,458
Alternative PC2LT4	3,804	3,659	4,102	3,877	3,740	3,657
Alternative PC3LT5	3,969	3,813	4,257	4,309	4,175	4,161
Alternative PC6LT8	4,114	3,949	4,671	5,629	5,429	5,764

**Table 294 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,829	2,949	2,845	2,685	2,463	2,268
Alternative PC1LT3	1,748	2,990	2,882	2,720	2,527	2,327
Alternative PC2LT4	1,747	2,990	2,882	2,719	2,527	2,327
Alternative PC3LT5	1,747	2,990	2,897	2,808	2,614	2,413
Alternative PC6LT8	1,748	2,991	3,429	3,831	3,591	3,357



**Table 295 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	15	14	14	14	14	13
Alternative PC1LT3	15	15	14	14	14	13
Alternative PC2LT4	15	14	14	14	14	13
Alternative PC3LT5	15	14	14	14	14	13
Alternative PC6LT8	15	15	14	14	14	13

**Table 296 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,532	1,492	1,832	2,256	2,381	2,343
Alternative PC1LT3	1,541	1,526	1,865	2,265	2,390	2,303
Alternative PC2LT4	1,540	1,526	1,865	2,265	2,390	2,303
Alternative PC3LT5	1,540	1,683	1,911	2,316	2,460	2,403
Alternative PC6LT8	1,542	1,912	2,185	2,407	3,280	3,355

**Table 297 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	960	878	735	2,219	2,084	2,627
Alternative PC1LT3	1,062	979	898	2,337	2,201	2,696
Alternative PC2LT4	1,061	978	898	2,352	2,216	2,721
Alternative PC3LT5	1,061	978	898	2,374	2,239	2,776
Alternative PC6LT8	1,061	979	898	2,401	2,384	2,773

**Table 298 - Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Total Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,078	2,451	2,255	2,829	3,168	3,364
Alternative PC1LT3	2,126	2,517	2,342	3,211	3,484	3,666
Alternative PC2LT4	2,126	2,517	2,342	3,305	3,572	3,746
Alternative PC3LT5	2,126	2,517	2,342	3,170	3,474	3,652
Alternative PC6LT8	2,171	2,956	3,622	4,371	4,606	4,711

**Table 299 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,904	2,166	2,052	2,154	1,986	1,784
Alternative PC1LT3	1,904	2,214	2,316	2,466	2,349	1,786
Alternative PC2LT4	1,904	2,331	2,420	2,592	2,501	1,786
Alternative PC3LT5	1,904	2,444	2,527	2,721	2,651	1,786
Alternative PC6LT8	1,924	2,852	2,912	3,148	3,159	2,923

**Table 300 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,573	1,443	1,283	1,087	990	1,076
Alternative PC1LT3	3,411	3,149	2,842	2,522	2,324	2,092
Alternative PC2LT4	2,028	1,866	1,670	1,444	1,323	1,168
Alternative PC3LT5	1,923	1,765	1,573	1,351	1,331	1,491
Alternative PC6LT8	4,390	4,080	3,720	3,374	3,139	3,068

**Table 301 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,919	1,814	3,116	3,162	3,290	3,032
Alternative PC1LT3	2,923	2,793	4,003	3,738	4,008	3,734
Alternative PC2LT4	2,925	2,795	3,955	3,696	3,986	3,718
Alternative PC3LT5	2,925	2,795	4,171	3,896	4,158	3,877
Alternative PC6LT8	2,925	2,805	4,458	5,339	4,644	4,328

**Table 302 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,206	1,603	1,682	1,497	1,427	1,855
Alternative PC1LT3	1,280	1,673	1,749	1,567	1,495	2,381
Alternative PC2LT4	1,306	1,737	1,809	1,624	1,548	2,223
Alternative PC3LT5	1,754	2,252	2,007	1,804	1,733	2,179
Alternative PC6LT8	1,752	2,965	2,781	2,518	2,405	2,695



**Table 303 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,864	1,813	1,664	1,554	1,541	2,362
Alternative PC1LT3	1,980	2,096	1,942	1,812	1,795	2,602
Alternative PC2LT4	2,326	2,645	2,452	2,290	2,173	3,111
Alternative PC3LT5	2,325	2,843	2,645	2,481	2,490	3,355
Alternative PC6LT8	3,353	5,720	5,382	5,088	5,167	5,948

**Table 304 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	954	886	1,789	1,686	2,457	3,097
Alternative PC1LT3	958	890	1,727	1,639	2,510	3,101
Alternative PC2LT4	958	890	1,663	1,850	2,683	3,265
Alternative PC3LT5	958	969	1,889	2,050	2,919	3,490
Alternative PC6LT8	1,780	2,145	3,164	3,580	3,981	4,452

**Table 305 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,435	3,183	2,857	2,649	2,465	2,234
Alternative PC1LT3	3,433	3,190	2,872	2,663	2,478	2,278
Alternative PC2LT4	3,437	3,187	2,866	2,876	2,665	2,466
Alternative PC3LT5	3,435	3,186	2,865	3,510	2,763	2,488
Alternative PC6LT8	3,433	3,181	3,832	4,697	4,528	2,611

**Table 306 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC1LT3	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC2LT4	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC3LT5	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543
Alternative PC6LT8	-2,499	-2,671	-2,960	-3,214	-3,343	-3,543

**Table 307 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	-62
Alternative PC1LT3	0	0	0	0	0	-62
Alternative PC2LT4	0	0	0	0	0	-62
Alternative PC3LT5	0	0	0	0	0	-62
Alternative PC6LT8	0	0	0	0	0	-62

**Table 308 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,667	1,551	3,865	3,549	3,302	2,993
Alternative PC1LT3	1,761	1,673	3,892	3,575	3,328	3,020
Alternative PC2LT4	1,761	1,734	14,537	13,872	13,064	12,188
Alternative PC3LT5	1,761	1,734	14,539	13,874	13,065	12,190
Alternative PC6LT8	1,761	1,780	14,181	13,583	12,823	12,012

**Table 309 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,107	1,940	1,695	1,823	1,965	2,056
Alternative PC1LT3	2,179	2,006	1,882	1,959	2,086	2,159
Alternative PC2LT4	2,349	2,161	2,015	2,128	2,445	2,495
Alternative PC3LT5	2,513	2,310	2,150	2,232	2,539	2,577
Alternative PC6LT8	2,643	2,318	2,675	2,665	3,075	2,959

**Table 310 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,276	2,140	1,964	1,814	1,633	1,502
Alternative PC1LT3	2,276	2,141	1,964	1,815	1,636	1,505
Alternative PC2LT4	2,276	2,141	1,964	2,150	1,633	1,559
Alternative PC3LT5	2,276	2,141	2,024	2,537	2,049	1,943
Alternative PC6LT8	2,276	2,141	2,878	4,224	3,465	3,898



**Table 311 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,572	1,475	1,367	1,563	1,523	2,566
Alternative PC1LT3	1,631	1,528	1,414	1,605	1,603	2,639
Alternative PC2LT4	1,631	1,603	1,488	1,705	1,702	2,761
Alternative PC3LT5	1,630	1,883	1,745	1,985	2,148	3,175
Alternative PC6LT8	1,632	1,988	2,351	3,013	2,933	3,890

**Table 312 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,705	3,501	3,502	3,592	4,088	4,053
Alternative PC1LT3	3,706	3,568	3,860	3,897	4,315	4,265
Alternative PC2LT4	3,706	3,568	3,508	3,569	4,048	4,142
Alternative PC3LT5	3,706	3,567	3,796	3,849	4,471	4,541
Alternative PC6LT8	3,705	3,567	3,935	4,386	4,852	4,876

**Table 313 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,009	2,914	3,732	3,809	3,507	3,259
Alternative PC1LT3	1,974	2,915	3,732	3,809	3,502	3,253
Alternative PC2LT4	1,974	2,915	3,732	3,810	3,502	3,253
Alternative PC3LT5	1,973	2,915	3,732	3,810	3,502	3,253
Alternative PC6LT8	1,974	2,915	3,732	4,034	3,720	3,509

**Table 314 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 315 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,161	1,111	1,271	2,438	2,422	2,232
Alternative PC1LT3	1,221	1,208	1,363	2,463	2,447	2,237
Alternative PC2LT4	1,220	1,208	1,363	2,464	2,447	2,237
Alternative PC3LT5	1,220	1,208	1,296	2,412	2,451	2,246
Alternative PC6LT8	1,225	1,548	1,717	2,503	2,533	2,404

**Table 316 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	486	443	262	317	356	287
Alternative PC1LT3	486	444	262	319	357	288
Alternative PC2LT4	486	443	262	371	409	378
Alternative PC3LT5	486	444	263	457	496	567
Alternative PC6LT8	486	443	262	457	632	1,509

**Table 317 - Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Passenger Car Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,093	3,299	2,965	2,686	2,923	2,618
Alternative PC1LT3	2,093	3,300	2,975	2,695	2,843	2,544
Alternative PC2LT4	2,093	3,299	2,974	2,694	2,842	2,541
Alternative PC3LT5	2,093	3,299	2,974	2,694	2,931	2,627
Alternative PC6LT8	2,147	4,563	4,411	3,767	3,924	3,549

**Table 318 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (BMW)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,389	1,327	1,247	1,317	1,290	2,816
Alternative PC1LT3	1,389	1,368	1,589	1,777	1,873	3,040
Alternative PC2LT4	1,389	1,476	1,722	1,976	2,147	3,238
Alternative PC3LT5	1,389	1,587	1,865	2,197	2,431	2,675
Alternative PC6LT8	1,402	1,963	2,361	2,984	3,479	4,334



**Table 319 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Ford)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,214	3,682	3,772	3,542	3,330	3,118
Alternative PC1LT3	3,301	3,676	3,767	3,537	3,324	3,112
Alternative PC2LT4	3,625	4,018	4,116	3,858	3,624	3,418
Alternative PC3LT5	3,739	4,097	4,610	4,320	4,059	3,829
Alternative PC6LT8	4,205	5,607	6,321	5,936	5,593	5,233

**Table 320 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (GM)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,290	2,154	2,002	2,004	3,186	3,153
Alternative PC1LT3	3,119	2,934	2,730	2,760	3,921	3,843
Alternative PC2LT4	3,119	2,960	2,756	2,786	3,947	3,868
Alternative PC3LT5	3,466	3,330	3,100	3,139	4,281	4,104
Alternative PC6LT8	3,590	3,453	3,218	4,297	5,150	5,340

**Table 321 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Honda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,314	3,072	2,779	2,523	2,551	2,298
Alternative PC1LT3	3,314	3,072	2,779	2,534	2,561	2,307
Alternative PC2LT4	3,314	3,071	2,779	2,536	2,563	2,409
Alternative PC3LT5	3,314	3,071	2,779	3,415	3,429	3,106
Alternative PC6LT8	3,314	3,089	3,165	3,578	3,616	3,793

**Table 322 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-H)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,408	3,090	2,802	2,580	3,509	3,212
Alternative PC1LT3	1,478	3,154	2,879	2,651	3,691	3,386
Alternative PC2LT4	1,478	3,154	2,879	2,651	3,698	3,392
Alternative PC3LT5	1,478	3,098	2,859	2,664	3,653	3,377
Alternative PC6LT8	2,664	5,707	5,328	5,006	5,858	5,437

**Table 323 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Hyundai Kia-K)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,475	1,374	1,903	1,757	2,189	2,013
Alternative PC1LT3	1,475	1,374	2,147	1,990	2,609	2,407
Alternative PC2LT4	1,475	1,374	2,518	2,341	2,999	2,772
Alternative PC3LT5	1,475	1,452	2,961	2,750	3,378	3,120
Alternative PC6LT8	1,475	1,821	3,572	3,640	4,436	4,323

**Table 324 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (JLR)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,921	1,778	1,597	1,737	1,573	1,804
Alternative PC1LT3	1,922	1,781	1,601	1,751	1,982	2,262
Alternative PC2LT4	1,922	1,781	1,601	1,784	2,422	2,775
Alternative PC3LT5	1,923	1,781	1,602	2,599	2,896	2,856
Alternative PC6LT8	1,923	1,781	2,755	4,009	4,403	4,113

**Table 325 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Karma)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0

**Table 326 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Lucid)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	0	0	0	0	0	0
Alternative PC1LT3	0	0	0	0	0	0
Alternative PC2LT4	0	0	0	0	0	0
Alternative PC3LT5	0	0	0	0	0	0
Alternative PC6LT8	0	0	0	0	0	0



**Table 327 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mazda)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,257	2,136	3,431	4,183	3,936	3,634
Alternative PC1LT3	2,276	2,155	3,459	4,211	3,963	3,667
Alternative PC2LT4	6,652	6,395	7,563	8,180	7,716	7,201
Alternative PC3LT5	6,667	6,410	7,577	8,194	7,730	7,215
Alternative PC6LT8	7,929	7,618	7,737	8,394	7,921	7,477

**Table 328 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mercedes-Benz)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,101	3,894	3,541	5,267	4,929	4,519
Alternative PC1LT3	3,016	3,816	3,559	5,249	4,912	4,504
Alternative PC2LT4	3,022	4,058	3,777	5,447	5,096	4,670
Alternative PC3LT5	3,101	3,894	3,631	5,314	4,974	4,561
Alternative PC6LT8	3,216	4,220	3,950	5,828	5,467	5,034

**Table 329 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Mitsubishi)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,054	1,940	1,813	1,706	3,708	3,436
Alternative PC1LT3	2,055	1,941	1,814	1,707	4,141	3,836
Alternative PC2LT4	2,055	1,941	1,814	2,050	2,455	2,279
Alternative PC3LT5	2,055	1,941	1,872	2,462	5,624	5,250
Alternative PC6LT8	2,055	1,941	2,739	4,286	4,388	4,075

**Table 330 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Nissan)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	3,428	5,266	5,160	4,791	4,486	4,133
Alternative PC1LT3	3,429	5,266	5,160	4,792	4,486	4,133
Alternative PC2LT4	3,428	5,304	5,200	4,833	4,530	4,180
Alternative PC3LT5	3,428	5,477	5,123	4,763	4,465	4,122
Alternative PC6LT8	3,430	5,411	5,454	6,163	5,794	5,369

**Table 331 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Stellantis)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,842	2,760	3,411	3,824	3,613	3,489
Alternative PC1LT3	3,534	3,407	3,922	3,681	3,475	3,358
Alternative PC2LT4	3,816	3,670	4,173	3,914	3,702	3,597
Alternative PC3LT5	4,002	3,843	4,313	4,365	4,138	4,114
Alternative PC6LT8	4,165	3,996	4,760	5,780	5,500	5,875

**Table 332 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Subaru)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,803	2,955	2,716	2,521	2,308	2,121
Alternative PC1LT3	1,715	3,001	2,760	2,561	2,383	2,190
Alternative PC2LT4	1,714	3,001	2,759	2,561	2,383	2,190
Alternative PC3LT5	1,714	3,001	2,777	2,662	2,483	2,289
Alternative PC6LT8	1,714	3,002	3,385	3,802	3,571	3,335

**Table 333 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Tesla)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	244	240	237	233	229	226
Alternative PC1LT3	244	240	237	233	229	226
Alternative PC2LT4	244	240	237	233	229	226
Alternative PC3LT5	244	240	237	233	229	226
Alternative PC6LT8	244	240	237	233	229	226

**Table 334 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Toyota)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,735	1,697	2,134	2,158	2,359	2,405
Alternative PC1LT3	1,715	1,698	2,134	2,158	2,359	2,339
Alternative PC2LT4	1,715	1,698	2,134	2,158	2,359	2,339
Alternative PC3LT5	1,715	1,939	2,240	2,264	2,464	2,489
Alternative PC6LT8	1,715	2,107	2,435	2,356	3,689	3,880



**Table 335 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (Volvo)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	1,134	1,035	905	2,906	2,719	3,489
Alternative PC1LT3	1,271	1,171	1,125	3,063	2,875	3,580
Alternative PC2LT4	1,271	1,171	1,125	3,064	2,875	3,580
Alternative PC3LT5	1,271	1,171	1,125	3,063	2,875	3,586
Alternative PC6LT8	1,271	1,171	1,125	3,101	3,026	3,239

**Table 336 - Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$), Light Truck Fleet for Manufacturer (VWA)</b>						
Model Year	2027	2028	2029	2030	2031	2032
No Action Alternative (Baseline)	2,069	1,994	1,874	2,906	3,302	3,773
Alternative PC1LT3	2,143	2,096	2,005	3,488	3,833	4,279
Alternative PC2LT4	2,143	2,096	2,005	3,631	3,968	4,405
Alternative PC3LT5	2,143	2,096	2,005	3,426	3,769	4,212
Alternative PC6LT8	2,184	2,096	3,203	4,694	4,979	5,350

## Incremental Societal Impacts

**Table 337 - Incremental Total Societal Costs (\$b) by Year and Alternative for Total Fleet, Discounted at 3%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Total Fleet, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	25.9	1.6	1.5	1.3	1.2	1.1	32.6
Alternative PC2LT4	25.9	1.6	1.4	1.3	1.2	1.1	32.5
Alternative PC3LT5	25.9	1.5	1.4	1.3	1.1	1.0	32.3
Alternative PC6LT8	25.9	1.5	1.3	1.1	0.9	0.8	31.5

**Table 338 - Incremental Total Societal Costs (\$b) by Year and Alternative for Passenger Car Fleet, Discounted at 3%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Passenger Car Fleet, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	9.8	0.4	0.3	0.3	0.3	0.2	11.2
Alternative PC2LT4	9.8	0.4	0.3	0.3	0.3	0.2	11.2
Alternative PC3LT5	9.8	0.4	0.3	0.3	0.2	0.2	11.1
Alternative PC6LT8	9.8	0.3	0.3	0.2	0.2	0.2	10.9

**Table 339 - Incremental Total Societal Costs (\$b) by Year and Alternative for Light Truck Fleet, Discounted at 3%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Light Truck Fleet, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	16.2	1.2	1.1	1.1	0.9	0.9	21.4
Alternative PC2LT4	16.2	1.2	1.1	1.0	0.9	0.9	21.3
Alternative PC3LT5	16.2	1.2	1.1	1.0	0.9	0.8	21.1
Alternative PC6LT8	16.2	1.1	1.0	0.9	0.7	0.6	20.5

**Table 340 - Incremental Total Societal Costs (\$b) by Year and Alternative for Total Fleet, Discounted at 7%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Total Fleet, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	25.9	1.6	1.5	1.3	1.2	1.1	32.6
Alternative PC2LT4	25.9	1.6	1.4	1.3	1.2	1.1	32.5
Alternative PC3LT5	25.9	1.5	1.4	1.3	1.1	1.0	32.3
Alternative PC6LT8	25.9	1.5	1.3	1.1	0.9	0.8	31.5

**Table 341 - Incremental Total Societal Costs (\$b) by Year and Alternative for Passenger Car Fleet, Discounted at 7%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Passenger Car Fleet, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	9.8	0.4	0.3	0.3	0.3	0.2	11.2
Alternative PC2LT4	9.8	0.4	0.3	0.3	0.3	0.2	11.2
Alternative PC3LT5	9.8	0.4	0.3	0.3	0.2	0.2	11.1
Alternative PC6LT8	9.8	0.3	0.3	0.2	0.2	0.2	10.9

**Table 342 - Incremental Total Societal Costs (\$b) by Year and Alternative for Light Truck Fleet, Discounted at 7%**

<b>Incremental Total Societal Costs (\$b) by Year and Alternative for Light Truck Fleet, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	16.2	1.2	1.1	1.1	0.9	0.9	21.4
Alternative PC2LT4	16.2	1.2	1.1	1.0	0.9	0.9	21.3
Alternative PC3LT5	16.2	1.2	1.1	1.0	0.9	0.8	21.1
Alternative PC6LT8	16.2	1.1	1.0	0.9	0.7	0.6	20.5



**Table 343 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 3%**

Incremental Total Societal Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 3%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.1	4.9	4.9	3.4	3.5	3.5	20.1
Alternative PC2LT4	-0.7	7.2	7.1	5.7	5.6	5.8	30.7
Alternative PC3LT5	-1.0	9.9	10.3	10.9	11.2	10.8	52.1
Alternative PC6LT8	-3.6	17.9	20.6	25.4	29.7	32.9	122.7

**Table 344 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 3%**

<b>Incremental Total Societal Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.1	1.1	1.1	0.8	0.8	1.1	4.8
Alternative PC2LT4	-0.4	1.3	1.2	1.0	1.0	1.2	5.2
Alternative PC3LT5	-0.6	1.9	1.6	1.4	1.7	1.7	7.6
Alternative PC6LT8	-2.2	4.5	4.5	4.7	4.9	5.1	21.6

**Table 345 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 3%**

<b>Incremental Total Societal Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	0.0	3.9	3.8	2.6	2.7	2.4	15.2
Alternative PC2LT4	-0.3	5.9	5.9	4.7	4.7	4.6	25.5
Alternative PC3LT5	-0.4	8.1	8.8	9.4	9.5	9.1	44.5
Alternative PC6LT8	-1.5	13.3	16.0	20.7	24.8	27.7	101.1

**Table 346 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 7%**

<b>Incremental Total Societal Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.1	3.0	2.9	2.0	2.0	1.9	11.7
Alternative PC2LT4	-0.4	4.4	4.2	3.3	3.2	3.1	17.8
Alternative PC3LT5	-0.6	6.1	6.1	6.3	6.2	5.8	30.0
Alternative PC6LT8	-2.3	11.0	12.2	14.6	16.5	17.7	69.7

**Table 347 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 7%**

<b>Incremental Total Societal Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.1	0.7	0.7	0.5	0.5	0.6	2.8
Alternative PC2LT4	-0.3	0.8	0.7	0.6	0.5	0.6	3.0
Alternative PC3LT5	-0.4	1.1	0.9	0.8	1.0	0.9	4.4
Alternative PC6LT8	-1.4	2.8	2.7	2.7	2.8	2.8	12.4

**Table 348 - Incremental Total Societal Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 7%**

Incremental Total Societal Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 7%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	0.0	2.4	2.2	1.5	1.5	1.3	8.9
Alternative PC2LT4	-0.2	3.6	3.5	2.7	2.6	2.5	14.8
Alternative PC3LT5	-0.2	5.0	5.2	5.5	5.3	4.9	25.6
Alternative PC6LT8	-0.9	8.2	9.5	11.9	13.7	14.9	57.3

**Table 349 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 3%**

Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 3%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.4	0.1	0.3	0.4	0.5	0.5	1.3
Alternative PC2LT4	-2.1	0.1	0.2	0.4	0.6	0.6	-0.3
Alternative PC3LT5	-3.0	0.3	0.6	1.1	1.4	1.6	2.1
Alternative PC6LT8	-10.9	0.2	1.8	3.6	4.3	5.7	4.7

**Table 350 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 3%**

Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 3%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.3	0.5	0.6	0.6	0.6	0.6	2.6
Alternative PC2LT4	-1.3	0.4	0.7	0.8	0.8	0.5	1.8
Alternative PC3LT5	-2.0	0.0	0.3	0.4	0.6	0.5	0.0
Alternative PC6LT8	-6.8	0.5	0.8	0.2	-0.1	-0.2	-5.7



**Table 351 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 3%**

<b>Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 3%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	0.0	-0.5	-0.3	-0.2	-0.1	-0.1	-1.2
Alternative PC2LT4	-0.8	-0.3	-0.5	-0.4	-0.2	0.1	-2.1
Alternative PC3LT5	-1.0	0.3	0.3	0.7	0.8	1.1	2.2
Alternative PC6LT8	-4.1	-0.3	1.0	3.5	4.4	5.9	10.4

**Table 352 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 7%**

Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Total Fleet, Average SCC Level, Discounted at 7%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.3	-0.3	-0.1	0.0	0.1	0.1	-0.5
Alternative PC2LT4	-1.3	-0.6	-0.4	-0.2	0.0	0.0	-2.5
Alternative PC3LT5	-1.9	-0.7	-0.4	-0.1	0.1	0.3	-2.6
Alternative PC6LT8	-6.8	-1.7	-0.7	0.1	0.4	1.2	-7.5

**Table 353 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 7%**

Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Passenger Car Fleet, Average SCC Level, Discounted at 7%							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	-0.2	0.2	0.3	0.2	0.3	0.2	1.0
Alternative PC2LT4	-0.9	0.1	0.3	0.3	0.3	0.1	0.3
Alternative PC3LT5	-1.3	-0.2	0.0	0.1	0.2	0.1	-1.1
Alternative PC6LT8	-4.3	-0.3	-0.1	-0.4	-0.5	-0.6	-6.3

**Table 354 - Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 7%**

<b>Incremental Total Societal Net Benefits (\$b) by Year and Alternative for Light Truck Fleet, Average SCC Level, Discounted at 7%</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	0.0	-0.5	-0.4	-0.2	-0.2	-0.1	-1.4
Alternative PC2LT4	-0.4	-0.7	-0.7	-0.5	-0.3	-0.2	-2.8
Alternative PC3LT5	-0.6	-0.5	-0.4	-0.1	0.0	0.2	-1.5
Alternative PC6LT8	-2.5	-1.4	-0.7	0.6	0.9	1.8	-1.2

## Labor Impacts

**Table 355 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Total)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,032,277	1,038,083	1,039,326	1,041,790	1,043,842
2028	1,045,352	1,051,297	1,053,010	1,055,805	1,061,472
2029	1,035,351	1,041,140	1,042,614	1,045,368	1,050,835
2030	1,014,678	1,017,806	1,019,310	1,025,120	1,035,397
2031	999,717	1,002,831	1,004,021	1,009,876	1,025,613
2032	993,963	997,017	998,150	1,003,165	1,021,617

**Table 356 - Estimated Labor Utilization (1000s of Person-Years), Passenger Car Fleet for Manufacturer(Total)**

<b>Estimated Labor Utilization (1000s of Person-Years), Passenger Car Fleet for Manufacturer(Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	283,811	283,703	284,174	285,235	284,631
2028	285,336	285,074	285,317	286,580	286,249
2029	280,880	280,710	280,180	281,151	280,820
2030	277,945	277,669	277,063	278,030	279,046
2031	276,647	276,382	275,769	276,941	278,501
2032	276,866	277,309	276,654	277,208	279,172

**Table 357 - Estimated Labor Utilization (1000s of Person-Years), Light Truck Fleet for Manufacturer(Total)**

<b>Estimated Labor Utilization (1000s of Person-Years), Light Truck Fleet for Manufacturer(Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	748,466	754,380	755,152	756,555	759,211
2028	760,016	766,223	767,693	769,225	775,223
2029	754,471	760,431	762,434	764,218	770,015
2030	736,734	740,137	742,247	747,090	756,351
2031	723,070	726,450	728,252	732,935	747,111
2032	717,097	719,708	721,496	725,957	742,445

**Table 358 - Estimated Labor Utilization (1000s of Person-Years), Domestic Car Fleet for Manufacturer(Total)**

<b>Estimated Labor Utilization (1000s of Person-Years), Domestic Car Fleet for Manufacturer(Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	182,325	182,474	182,741	183,701	183,474
2028	183,322	183,312	183,421	184,432	184,748
2029	180,594	180,689	180,187	181,065	181,382
2030	178,821	178,815	178,262	179,142	180,699
2031	177,692	177,670	177,176	178,166	179,854
2032	177,887	178,627	177,927	178,417	180,080



**Table 359 - Estimated Labor Utilization (1000s of Person-Years), Imported Car Fleet for Manufacturer(Total)**

<b>Estimated Labor Utilization (1000s of Person-Years), Imported Car Fleet for Manufacturer(Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	101,486	101,230	101,433	101,534	101,157
2028	102,014	101,762	101,896	102,148	101,500
2029	100,286	100,021	99,993	100,085	99,438
2030	99,124	98,854	98,801	98,888	98,347
2031	98,955	98,712	98,593	98,775	98,647
2032	98,979	98,682	98,727	98,791	99,092

**Table 360 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(BMW)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(BMW)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	19,808	19,806	19,785	19,775	19,761
2028	20,024	20,033	20,018	20,006	19,982
2029	19,746	19,774	19,767	19,752	19,700
2030	19,310	19,333	19,329	19,316	19,228
2031	18,912	18,932	18,927	18,916	18,841
2032	19,184	19,254	19,299	19,142	19,385

**Table 361 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Ford)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Ford)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	179,990	180,763	181,050	181,134	183,083
2028	183,007	183,599	184,064	184,036	188,941
2029	181,256	181,823	182,458	183,934	188,666
2030	176,329	176,834	177,434	178,787	182,709
2031	171,960	172,423	172,960	174,250	177,909
2032	170,337	170,713	171,235	172,556	175,733

**Table 362 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(GM)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(GM)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	150,023	152,423	152,229	153,133	153,419
2028	151,537	153,926	153,873	154,844	155,057
2029	150,039	152,267	152,282	153,158	153,092
2030	146,416	148,585	148,625	149,545	149,147
2031	146,444	148,500	148,532	149,403	150,721
2032	145,563	147,494	147,495	148,102	150,464

**Table 363 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Honda)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Honda)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	146,495	146,512	146,521	147,299	147,071
2028	148,049	148,079	148,136	148,987	149,757
2029	145,209	145,241	145,242	145,832	147,206
2030	141,293	141,359	141,354	143,723	144,455
2031	138,863	138,903	138,894	141,146	142,035
2032	138,441	139,275	139,123	140,581	142,282

**Table 364 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Hyundai Kia-H)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Hyundai Kia-H)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	26,006	25,986	25,982	25,980	25,990
2028	26,208	26,207	26,211	26,206	26,277
2029	25,775	25,783	25,776	25,769	25,811
2030	25,180	25,188	25,180	25,174	25,203
2031	25,641	25,707	25,668	25,702	25,980
2032	25,857	25,919	25,963	25,964	26,283

**Table 365 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Hyundai Kia-K)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Hyundai Kia-K)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	31,852	31,829	31,820	31,815	31,768
2028	32,102	32,085	32,073	32,064	31,976
2029	31,730	31,752	31,641	31,646	31,601
2030	30,977	31,000	30,921	30,917	30,932
2031	31,386	31,578	31,378	31,378	31,603
2032	31,096	31,280	31,097	31,092	31,439

**Table 366 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(JLR)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(JLR)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,110	1,110	1,108	1,107	1,107
2028	1,124	1,125	1,124	1,123	1,123
2029	1,110	1,111	1,111	1,110	1,108
2030	1,088	1,090	1,090	1,089	1,084
2031	1,063	1,065	1,065	1,064	1,059
2032	1,057	1,058	1,059	1,057	1,066



**Table 367 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Karma)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Karma)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2	2	2	2	2
2028	2	2	2	2	2
2029	2	2	2	2	2
2030	2	2	2	2	2
2031	2	2	2	2	2
2032	2	2	2	2	2

**Table 368 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Lucid)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Lucid)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	43	43	43	43	43
2028	44	43	43	43	43
2029	43	43	43	43	42
2030	42	42	42	42	42
2031	42	41	41	41	41
2032	42	41	41	41	41

**Table 369 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mazda)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mazda)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,507	2,508	2,652	2,651	2,692
2028	2,536	2,538	2,681	2,680	2,718
2029	2,514	2,517	2,703	2,702	2,729
2030	2,453	2,456	2,632	2,631	2,650
2031	2,400	2,402	2,566	2,565	2,583
2032	2,383	2,385	2,538	2,538	2,553

**Table 370 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mercedes-Benz)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mercedes-Benz)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	10,701	10,700	10,688	10,682	10,676
2028	11,212	11,217	11,310	11,202	11,331
2029	10,982	11,007	11,093	10,995	11,103
2030	10,664	10,687	10,765	10,678	10,758
2031	10,395	10,415	10,485	10,407	10,488
2032	10,278	10,298	10,358	10,290	10,363

**Table 371 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mitsubishi)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Mitsubishi)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,469	1,467	1,467	1,468	1,465
2028	1,481	1,480	1,479	1,479	1,474
2029	1,459	1,457	1,456	1,456	1,450
2030	1,428	1,427	1,425	1,425	1,419
2031	1,419	1,421	1,408	1,431	1,429
2032	1,412	1,413	1,402	1,423	1,422

**Table 372 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Nissan)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Nissan)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	64,005	63,958	63,955	63,953	63,842
2028	65,463	65,421	65,472	65,798	65,405
2029	64,523	64,482	64,503	64,590	64,162
2030	63,236	63,197	63,219	63,340	64,593
2031	62,111	62,103	62,127	62,408	63,469
2032	61,959	61,957	61,998	62,245	63,249

**Table 373 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Stellantis)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Stellantis)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	125,095	128,116	129,144	129,855	130,539
2028	126,354	129,350	130,386	131,044	131,679
2029	126,482	129,395	130,262	130,995	131,970
2030	125,213	125,471	126,283	128,105	132,691
2031	121,989	122,190	122,941	124,761	129,021
2032	120,465	120,652	121,346	123,443	128,057

**Table 374 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Subaru)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Subaru)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	45,719	45,639	45,590	45,567	45,535
2028	46,697	46,721	46,687	46,659	46,601
2029	45,909	45,938	45,917	45,900	46,131
2030	44,804	44,829	44,813	44,918	45,881
2031	43,741	43,795	43,779	43,883	44,811
2032	43,344	43,397	43,375	43,482	44,322



**Table 375 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Tesla)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Tesla)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	54,510	54,379	54,477	54,526	54,327
2028	54,726	54,550	54,586	54,623	54,250
2029	53,752	53,573	53,506	53,537	53,189
2030	52,748	52,589	52,500	52,532	52,345
2031	52,301	52,129	52,047	52,042	52,002
2032	52,178	52,024	51,977	51,934	51,973

**Table 376 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Toyota)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Toyota)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	161,845	161,697	161,671	161,658	161,396
2028	163,561	163,641	163,590	163,738	163,585
2029	163,777	163,853	163,739	162,839	161,777
2030	162,619	162,565	162,441	161,658	160,263
2031	160,351	160,275	160,155	159,446	161,878
2032	159,712	158,960	158,860	158,306	161,360

**Table 377 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Volvo)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(Volvo)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,740	2,737	2,738	2,738	2,733
2028	2,760	2,758	2,757	2,757	2,746
2029	2,715	2,713	2,711	2,711	2,699
2030	2,667	2,665	2,664	2,667	2,656
2031	2,625	2,623	2,622	2,624	2,618
2032	2,615	2,613	2,613	2,615	2,609

**Table 378 - Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(VWA)**

<b>Estimated Labor Utilization (1000s of Person-Years), Total Fleet for Manufacturer(VWA)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	8,355	8,407	8,404	8,403	8,391
2028	8,467	8,521	8,518	8,515	8,527
2029	8,328	8,407	8,401	8,398	8,398
2030	8,208	8,488	8,593	8,573	9,338
2031	8,070	8,327	8,423	8,406	9,122
2032	8,038	8,280	8,369	8,352	9,015

**Table 379 - Changes in Work Loss Days (thousand instances), Total Fleet through MY 2032**

<b>Changes in Work Loss Days (thousand instances), Total Fleet through MY 2032</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Work Loss Days from Upstream Emissions	16.9	23.3	38.9	86.1
Work Loss Days from Tailpipe Emissions	-29.4	-44.1	-73.8	-173.6
Total Work Loss Days	-12.5	-20.8	-34.9	-87.5

**Table 380 - Changes in Work Loss Days (thousand instances), Passenger Car Fleet through MY 2032**

<b>Changes in Work Loss Days (thousand instances), Passenger Car Fleet through MY 2032</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Work Loss Days from Upstream Emissions	1.9	1.1	4.4	13.7
Work Loss Days from Tailpipe Emissions	-7.2	-5.5	-12.4	-40.1
Total Work Loss Days	-5.3	-4.4	-8.0	-26.4

**Table 381 - Changes in Work Loss Days (thousand instances), Light Truck Fleet through MY 2032**

<b>Changes in Work Loss Days (thousand instances), Light Truck Fleet through MY 2032</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Work Loss Days from Upstream Emissions	15.0	22.2	34.5	72.3
Work Loss Days from Tailpipe Emissions	-22.2	-38.6	-61.4	-133.5
Total Work Loss Days	-7.1	-16.5	-26.9	-61.1

## Compliance Impacts

**Table 382 - Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, No Action Alternative (Baseline)**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, No Action Alternative (Baseline)</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	35.8	36.1	39.0	42.2	46.8	46.7	46.7	46.7	46.7	46.7	46.7	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A
Average Achieved (mpg)	34.1	35.5	38.5	40.8	43.7	46.4	48.8	51.8	54.7	58.0	61.3	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	8.6	15.0	18.9	25.8	29.6	33.2	35.1	36.1	37.7	38.0	278.0
Off-Cycle Technology Costs (\$b)	0.0	2.1	2.6	3.2	3.4	3.6	3.5	3.3	3.1	2.9	2.7	30.4
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2
Subtotal Technology Costs (\$b)	0.0	10.6	17.7	22.1	29.3	33.2	36.7	38.5	39.2	40.6	40.7	308.5
Total Civil Penalties (\$b)	2.0	0.6	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	2.8
Total Regulatory Costs (\$b)	2.0	11.3	17.9	22.3	29.5	33.4	36.9	38.6	39.3	40.7	40.8	312.6
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0



**Table 383 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, No Action Alternative (Baseline)**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, No Action Alternative (Baseline)</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.1	44.8	48.7	52.9	58.8	58.8	58.8	58.8	58.8	58.8	58.8	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A
Average Achieved (mpg)	43.7	46.6	51.3	54.4	59.9	61.6	64.6	69.7	76.2	81.2	92.7	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	1.9	4.1	4.7	6.6	6.7	7.2	7.9	8.7	8.9	10.0	66.7
Off-Cycle Technology Costs (\$b)	0.0	0.2	0.3	0.5	0.6	0.6	0.6	0.5	0.5	0.5	0.4	4.7
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Subtotal Technology Costs (\$b)	0.0	2.1	4.4	5.3	7.2	7.3	7.8	8.5	9.2	9.4	10.4	71.5
Total Civil Penalties (\$b)	1.1	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3
Total Regulatory Costs (\$b)	0.9	2.4	4.5	5.4	7.3	7.3	7.8	8.5	9.2	9.4	10.4	73.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 384 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, No Action Alternative (Baseline)**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, No Action Alternative (Baseline)</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	32.1	32.6	35.3	38.3	42.6	42.6	42.6	42.6	42.6	42.6	42.6	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A
Average Achieved (mpg)	30.1	31.3	34.0	36.4	38.8	41.5	43.8	46.4	48.3	51.2	52.9	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	6.7	11.0	14.2	19.2	22.9	26.0	27.2	27.4	28.8	27.9	211.2
Off-Cycle Technology Costs (\$b)	0.0	1.9	2.3	2.6	2.9	3.0	2.9	2.8	2.6	2.4	2.3	25.7
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Subtotal Technology Costs (\$b)	0.0	8.5	13.3	16.8	22.1	25.9	29.0	30.0	30.0	31.2	30.2	237.0
Total Civil Penalties (\$b)	0.9	0.4	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	1.5
Total Regulatory Costs (\$b)	1.1	8.9	13.5	16.9	22.2	26.0	29.1	30.1	30.1	31.3	30.3	239.5
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 385 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, No Action Alternative (Baseline)**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, No Action Alternative (Baseline)</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	43.5	44.2	48.1	52.3	58.0	58.0	58.0	58.0	58.0	58.0	58.0	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A
Average Achieved (mpg)	44.9	46.9	53.1	56.8	61.4	63.0	65.9	72.9	81.2	85.4	99.3	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.6	2.0	2.5	3.1	3.2	3.3	4.0	4.5	4.5	5.2	32.8
Off-Cycle Technology Costs (\$b)	0.0	0.1	0.1	0.3	0.3	0.3	0.3	0.3	0.2	0.2	0.1	2.3
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.6	2.2	2.8	3.4	3.5	3.6	4.2	4.7	4.7	5.3	35.1
Total Civil Penalties (\$b)	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
Total Regulatory Costs (\$b)	0.4	0.8	2.2	2.8	3.4	3.5	3.6	4.3	4.8	4.8	5.3	35.7
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 386 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, No Action Alternative (Baseline)**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, No Action Alternative (Baseline)</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.7	45.4	49.3	53.6	59.5	59.5	59.5	59.5	59.5	59.5	59.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	N/A
Average Achieved (mpg)	42.7	46.3	49.6	52.1	58.5	60.2	63.4	66.9	71.9	77.4	87.0	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	1.3	2.0	2.3	3.6	3.5	3.8	3.9	4.2	4.4	4.9	34.0
Off-Cycle Technology Costs (\$b)	0.0	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.2	0.2	2.5
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	1.5	2.2	2.5	3.9	3.8	4.2	4.2	4.4	4.6	5.1	36.5
Total Civil Penalties (\$b)	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8
Total Regulatory Costs (\$b)	0.5	1.6	2.2	2.6	3.9	3.9	4.2	4.3	4.5	4.7	5.1	37.4
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 387 - Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC1LT3**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC1LT3</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	35.8	36.1	39.0	42.2	46.8	47.9	49.1	50.3	51.6	53.0	54.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	5%	8%	11%	13%	16%	N/A
Average Achieved (mpg)	34.1	35.5	38.5	40.8	43.7	47.7	50.3	53.5	56.0	59.6	63.1	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	3.5	3.5	3.3	2.1	2.3	2.3	17.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	3.5	3.5	3.3	2.1	2.3	2.3	17.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.4
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	3.5	3.5	3.4	2.3	2.5	2.3	17.5
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.00	0.00	0.00	0.00	0.0

**Table 388 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC1LT3**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC1LT3</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.1	44.8	48.7	52.9	58.8	59.4	60.0	60.6	61.2	61.8	62.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%	N/A
Average Achieved (mpg)	43.7	46.6	51.3	54.4	59.9	62.6	66.0	71.6	77.8	83.0	96.4	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.0	0.7	0.8	1.0	5.3
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.0	0.7	0.8	1.0	5.3
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	1.0	0.8	0.8	1.0	5.5
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.02	-0.02	-0.02	-0.1

**Table 389 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC1LT3**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC1LT3</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	32.1	32.6	35.3	38.3	42.6	43.9	45.3	46.7	48.1	49.6	51.2	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	16%	20%	N/A
Average Achieved (mpg)	30.1	31.3	34.0	36.4	38.8	42.9	45.3	48.0	49.6	52.6	54.3	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.6	2.5	2.3	1.4	1.5	1.4	11.7
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.6	2.5	2.3	1.4	1.5	1.4	11.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.0	0.4
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.6	2.5	2.4	1.5	1.6	1.4	12.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.01	0.01	0.01	0.1

**Table 390 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC1LT3**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC1LT3</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	43.5	44.2	48.1	52.3	58.0	58.6	59.2	59.8	60.4	61.0	61.6	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%	N/A
Average Achieved (mpg)	44.9	46.9	53.1	56.8	61.4	64.9	68.1	76.1	84.9	89.4	108.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.8	0.7	0.7	1.0	4.9
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.8	0.7	0.7	1.0	4.9
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	0.8	0.8	0.7	0.7	1.0	4.9
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.0



**Table 391 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC1LT3**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC1LT3</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.7	45.4	49.3	53.6	59.5	60.1	60.7	61.3	62.0	62.6	63.2	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	1%	2%	3%	4%	5%	6%	N/A
Average Achieved (mpg)	42.7	46.3	49.6	52.1	58.5	60.5	64.2	67.7	71.9	77.5	86.8	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.4
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.1	0.0	0.0	0.0	0.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.0	0.1	0.0	0.6
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.01	0.0

**Table 392 - Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	35.8	36.1	39.0	42.2	46.8	48.4	50.1	51.9	53.8	55.7	57.7	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	7%	11%	15%	19%	24%	N/A
Average Achieved (mpg)	34.1	35.5	38.5	40.8	43.7	48.1	50.9	54.3	56.9	60.5	64.3	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.3	5.5	5.5	4.4	4.3	4.4	29.4
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.3	5.5	5.5	4.4	4.3	4.4	29.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.3	0.0	0.7
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.3	5.6	5.6	4.6	4.6	4.4	30.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.01	-0.01	-0.01	-0.01	-0.1

**Table 393 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.1	44.8	48.7	52.9	58.8	60.0	61.2	62.5	63.7	65.1	66.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	6%	8%	11%	13%	N/A
Average Achieved (mpg)	43.7	46.6	51.3	54.4	59.9	62.5	66.3	71.5	78.0	83.0	96.4	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.2	1.3	1.1	1.1	1.3	6.8
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.2	1.2	1.1	1.1	1.3	6.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.2	1.3	1.2	1.2	1.3	7.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.02	-0.1

**Table 394 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	32.1	32.6	35.3	38.3	42.6	44.4	46.2	48.2	50.2	52.2	54.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	9%	13%	18%	23%	28%	N/A
Average Achieved (mpg)	30.1	31.3	34.0	36.4	38.8	43.4	46.0	48.9	50.6	53.7	55.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.2	3.3	3.2	3.1	22.6
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.3	3.3	3.2	3.1	22.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.7
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	4.4	4.4	4.3	3.4	3.4	3.1	23.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	0.00	0.01	0.01	0.01	0.01	0.0

**Table 395 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	43.5	44.2	48.1	52.3	58.0	59.2	60.4	61.7	62.9	64.2	65.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	6%	8%	11%	13%	N/A
Average Achieved (mpg)	44.9	46.9	53.1	56.8	61.4	64.2	67.3	74.0	82.3	86.8	104.3	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.4	0.5	0.6	3.3
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.4	0.5	0.6	3.3
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.5	0.4	0.5	0.6	3.3
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.1

**Table 396 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.7	45.4	49.3	53.6	59.5	60.7	62.0	63.3	64.6	65.9	67.2	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	6%	8%	11%	13%	N/A
Average Achieved (mpg)	42.7	46.3	49.6	52.1	58.5	61.0	65.5	69.3	74.2	79.7	89.7	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.7	0.7	0.7	3.5
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.7	0.7	0.7	0.7	3.5
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.5	0.8	0.7	0.7	0.7	3.8
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.01	-0.1

**Table 397 - Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC3LT5**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC3LT5</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	35.8	36.1	39.0	42.2	46.8	48.9	51.2	53.5	56.1	58.7	61.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	5%	10%	15%	20%	26%	32%	N/A
Average Achieved (mpg)	34.1	35.5	38.5	40.8	43.7	48.7	51.7	55.3	58.9	63.1	66.9	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	6.7	7.6	7.9	7.8	8.1	7.7	45.9
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	6.7	7.6	7.9	7.8	8.1	7.7	45.9
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.4	0.0	1.1
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	6.7	7.8	8.1	8.3	8.4	7.7	47.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.02	-0.02	-0.02	-0.02	-0.02	-0.02	-0.1

**Table 398 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC3LT5**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC3LT5</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.1	44.8	48.7	52.9	58.8	60.6	62.5	64.4	66.4	68.5	70.6	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	16%	20%	N/A
Average Achieved (mpg)	43.7	46.6	51.3	54.4	59.9	63.3	67.6	72.5	79.2	85.3	97.9	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.2	1.8	1.8	1.6	1.9	1.9	10.3
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.2	1.8	1.8	1.6	1.9	1.9	10.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.2	1.9	1.9	1.8	2.0	1.9	10.7
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.02	-0.03	-0.02	-0.1



**Table 399 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC3LT5**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC3LT5</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	32.1	32.6	35.3	38.3	42.6	44.9	47.2	49.7	52.3	55.1	58.0	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	5%	11%	17%	23%	29%	36%	N/A
Average Achieved (mpg)	30.1	31.3	34.0	36.4	38.8	43.9	46.7	49.9	52.7	56.3	58.2	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.4	5.8	6.1	6.2	6.2	5.8	35.6
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.4	5.8	6.1	6.2	6.2	5.8	35.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.4	0.3	0.0	1.1
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	5.4	5.9	6.2	6.5	6.4	5.8	36.3
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	0.00	0.00	0.01	0.01	0.0

**Table 400 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC3LT5**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC3LT5</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	43.5	44.2	48.1	52.3	58.0	59.9	61.7	63.6	65.5	67.6	69.7	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	16%	20%	N/A
Average Achieved (mpg)	44.9	46.9	53.1	56.8	61.4	65.7	68.9	74.5	83.3	88.8	103.8	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.7	0.7	0.8	0.8	5.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.7	0.7	0.8	0.8	5.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.9	1.0	0.7	0.7	0.8	0.8	5.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	0.0

**Table 401 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC3LT5**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC3LT5</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.7	45.4	49.3	53.6	59.5	61.4	63.3	65.2	67.2	69.3	71.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	16%	20%	N/A
Average Achieved (mpg)	42.7	46.3	49.6	52.1	58.5	61.1	66.4	70.6	75.5	82.1	92.8	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.1	1.0	1.1	1.1	5.3
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.8	1.1	1.0	1.1	1.1	5.3
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.9	1.2	1.1	1.2	1.1	5.7
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.01	-0.01	-0.01	-0.01	-0.1

**Table 402 - Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC6LT8**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Total and Total Fleet, Alternative PC6LT8</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	35.8	36.1	39.0	42.2	46.8	50.5	54.5	58.9	63.7	68.9	74.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	8%	17%	26%	36%	47%	59%	N/A
Average Achieved (mpg)	34.1	35.5	38.5	40.8	43.7	49.3	54.2	58.9	65.1	73.0	81.5	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	9.8	15.3	17.1	20.0	22.6	23.8	108.6
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	9.8	15.3	17.1	20.0	22.6	23.8	108.5
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.8	2.1	3.2	0.8	0.3	7.3
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	9.9	16.1	19.1	23.2	23.4	24.1	115.8
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.04	-0.05	-0.07	-0.08	-0.07	-0.07	-0.4

**Table 403 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC6LT8**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandPassenger Car Fleet, Alternative PC6LT8</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.1	44.8	48.7	52.9	58.8	62.5	66.5	70.8	75.3	80.1	85.2	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	6%	13%	20%	28%	36%	45%	N/A
Average Achieved (mpg)	43.7	46.6	51.3	54.4	59.9	64.0	72.2	78.7	88.2	96.2	114.8	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.4	4.9	5.1	5.3	5.4	5.3	28.4
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.4	4.9	5.1	5.3	5.4	5.3	28.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.9	0.2	0.1	0.0	1.5
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	2.5	5.3	5.8	6.1	5.6	5.4	30.6
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.02	-0.05	-0.05	-0.04	-0.03	-0.02	-0.2

**Table 404 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC6LT8**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandLight Truck Fleet, Alternative PC6LT8</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	32.1	32.6	35.3	38.3	42.6	46.3	50.3	54.7	59.5	64.6	70.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	9%	18%	28%	40%	52%	65%	N/A
Average Achieved (mpg)	30.1	31.3	34.0	36.4	38.8	44.6	48.6	52.9	58.1	65.6	71.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	7.4	10.4	12.0	14.7	17.2	18.5	80.2
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	7.4	10.4	12.0	14.7	17.2	18.4	80.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.5	1.2	3.1	0.7	0.3	5.8
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	7.4	10.8	13.4	17.2	17.8	18.6	85.2
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.02	-0.01	-0.02	-0.05	-0.04	-0.05	-0.2

**Table 405 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC6LT8**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandDomestic Car Fleet, Alternative PC6LT8</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	43.5	44.2	48.1	52.3	58.0	61.7	65.7	69.9	74.3	79.1	84.1	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	6%	13%	20%	28%	36%	45%	N/A
Average Achieved (mpg)	44.9	46.9	53.1	56.8	61.4	67.1	73.1	80.1	94.9	101.0	119.4	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.4	2.1	1.8	2.3	2.2	2.1	11.8
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.4	2.1	1.8	2.3	2.2	2.1	11.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.9	0.0	0.0	0.0	1.2
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.4	2.2	2.1	2.6	2.2	2.1	12.5
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.02	-0.01	-0.01	-0.1

**Table 406 - Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC6LT8**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for TotalandImported Car Fleet, Alternative PC6LT8</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	44.7	45.4	49.3	53.6	59.5	63.3	67.4	71.7	76.2	81.1	86.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	6%	13%	20%	28%	36%	45%	N/A
Average Achieved (mpg)	42.7	46.3	49.6	52.1	58.5	61.2	71.2	77.3	82.5	92.0	110.8	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.1	2.8	3.3	3.0	3.2	3.3	16.6
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.1	2.8	3.3	3.0	3.2	3.3	16.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.1	0.0	0.3
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.1	3.1	3.7	3.5	3.4	3.4	18.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	-0.01	-0.02	-0.03	-0.02	-0.01	-0.01	-0.1



**Table 407 - Compliance Impacts and Cumulative Industry Costs by Model Year for BMW and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for BMW and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	37.6	37.9	41.0	44.4	49.3	50.8	52.4	54.1	55.9	57.8	59.7	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	7%	10%	14%	17%	21%	N/A
Average Achieved (mpg)	32.9	34.8	38.0	41.0	46.7	46.6	49.3	50.7	52.8	53.5	68.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2	0.2	0.0	0.6
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.2	0.2	0.1	0.7
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 408 - Compliance Impacts and Cumulative Industry Costs by Model Year for Ford and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for Ford and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	31.4	31.8	34.3	37.2	41.4	42.9	44.7	46.5	48.4	50.3	52.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	12%	17%	22%	27%	N/A
Average Achieved (mpg)	29.0	30.1	33.5	34.3	36.4	42.7	46.3	50.4	50.5	50.5	51.0	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.7	0.6	0.5	0.5	3.8
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.7	0.6	0.5	0.5	3.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.7	0.7	0.6	0.5	0.5	3.8
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 409 - Compliance Impacts and Cumulative Industry Costs by Model Year for GM and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for GM and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	32.5	32.9	35.2	38.2	42.3	43.8	45.6	47.2	49.1	51.0	53.0	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	12%	16%	21%	25%	N/A
Average Achieved (mpg)	29.1	29.0	33.7	36.7	38.1	43.5	43.7	45.3	46.1	54.4	56.2	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.8	1.7	1.6	1.5	1.5	1.4	9.4
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.8	1.7	1.6	1.5	1.5	1.4	9.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.8	1.7	1.6	1.5	1.5	1.4	9.4
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 410 - Compliance Impacts and Cumulative Industry Costs by Model Year for Honda and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Honda and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	39.1	39.4	42.7	46.2	51.2	52.8	54.5	56.2	58.1	60.1	62.0	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	7%	10%	14%	18%	21%	N/A
Average Achieved (mpg)	37.8	40.2	40.1	41.7	45.5	54.9	58.5	60.2	60.2	62.2	71.4	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.8
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.3	0.8
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 411 - Compliance Impacts and Cumulative Industry Costs by Model Year for Hyundai Kia-H and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Hyundai Kia-H and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	39.6	40.0	43.3	46.8	51.9	53.5	55.1	56.8	58.6	60.4	62.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	17%	20%	N/A
Average Achieved (mpg)	39.1	40.8	41.0	44.2	48.0	51.2	60.7	60.7	60.7	67.7	77.2	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	0.4	0.4	2.3
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	0.4	0.4	2.3
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.3	0.4	0.4	0.4	0.4	0.4	2.3
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 412 - Compliance Impacts and Cumulative Industry Costs by Model Year for Hyundai Kia-K and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Hyundai Kia-K and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	39.5	39.8	43.1	46.7	51.7	53.3	55.0	56.7	58.5	60.5	62.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	7%	10%	13%	17%	21%	N/A
Average Achieved (mpg)	38.5	40.5	44.7	44.7	49.5	49.4	49.4	58.9	60.2	72.8	82.2	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	1.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	1.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.2	0.3	0.3	1.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 413 - Compliance Impacts and Cumulative Industry Costs by Model Year for JLR and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for JLR and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	32.9	33.4	36.2	39.4	43.7	45.5	47.4	49.4	51.4	53.6	55.8	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	13%	18%	23%	28%	N/A
Average Achieved (mpg)	27.4	34.2	36.7	36.8	40.8	41.8	41.8	41.8	44.1	52.4	55.7	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.2
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 414 - Compliance Impacts and Cumulative Industry Costs by Model Year for Karma and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Karma and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	40.6	41.1	44.3	48.1	53.5	55.2	56.3	57.5	58.6	59.8	61.1	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	6%	8%	11%	13%	N/A
Average Achieved (mpg)	66.7	66.7	66.7	66.7	138.6	138.6	138.6	138.6	138.6	138.6	138.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0



**Table 415 - Compliance Impacts and Cumulative Industry Costs by Model Year for Lucid and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Lucid and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	40.6	41.1	44.3	48.1	53.5	55.2	56.3	57.5	58.6	59.8	61.1	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	6%	8%	11%	13%	N/A
Average Achieved (mpg)	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	166.5	170.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 416 - Compliance Impacts and Cumulative Industry Costs by Model Year for Mazda and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Mazda and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	37.3	37.8	41.0	44.4	49.4	51.3	53.3	55.4	57.6	59.9	62.3	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	12%	17%	21%	26%	N/A
Average Achieved (mpg)	35.1	41.2	42.4	42.5	46.8	51.0	51.0	68.4	79.9	80.0	80.0	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.0	0.9	0.9	0.8	5.2
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.0	0.9	0.9	0.8	5.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.8	0.8	1.0	0.9	0.9	0.8	5.2
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 417 - Compliance Impacts and Cumulative Industry Costs by Model Year for Mercedes-Benz and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Mercedes-Benz and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	36.8	37.2	40.2	43.6	48.4	49.9	51.5	53.3	55.0	56.9	58.8	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	7%	10%	14%	18%	22%	N/A
Average Achieved (mpg)	31.6	36.7	37.2	37.9	43.5	49.7	58.4	59.1	76.1	80.5	83.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.4
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 418 - Compliance Impacts and Cumulative Industry Costs by Model Year for Mitsubishi and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Mitsubishi and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	42.0	42.5	45.9	49.8	55.2	56.9	58.7	60.5	62.5	64.5	66.6	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	17%	21%	N/A
Average Achieved (mpg)	38.6	38.8	45.6	48.6	55.3	55.2	55.3	55.3	55.3	65.1	65.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	-0.1	-0.1	-0.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 419 - Compliance Impacts and Cumulative Industry Costs by Model Year for Nissan and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for Nissan and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	38.9	39.3	42.4	46.0	50.9	52.5	54.1	55.8	57.6	59.5	61.4	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	3%	6%	10%	13%	17%	21%	N/A
Average Achieved (mpg)	36.8	39.6	41.8	44.6	47.5	48.2	56.9	58.6	61.9	62.4	70.6	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.5
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 420 - Compliance Impacts and Cumulative Industry Costs by Model Year for Stellantis and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Stellantis and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	31.9	32.3	34.9	38.0	42.1	43.8	45.6	47.3	49.2	51.1	53.2	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	12%	17%	21%	26%	N/A
Average Achieved (mpg)	27.3	28.5	31.4	37.1	37.6	43.9	44.3	50.7	50.9	51.8	53.2	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.6	1.5	1.2	0.1	0.1	0.2	4.8
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.6	1.5	1.2	0.1	0.1	0.2	4.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	1.6	1.5	1.2	0.1	0.1	0.2	4.8
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 421 - Compliance Impacts and Cumulative Industry Costs by Model Year for Subaru and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for Subaru and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	37.8	38.2	41.4	44.9	50.0	51.9	53.9	56.0	58.2	60.5	62.9	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	12%	17%	21%	26%	N/A
Average Achieved (mpg)	36.7	40.3	42.2	43.8	49.1	50.4	61.7	63.9	65.2	65.2	65.8	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.1
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 422 - Compliance Impacts and Cumulative Industry Costs by Model Year for Tesla and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Tesla and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	40.7	41.2	44.8	48.6	54.1	55.2	56.4	57.7	58.9	60.3	61.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	2%	4%	7%	9%	11%	14%	N/A
Average Achieved (mpg)	160.7	160.7	160.7	160.6	160.6	160.6	160.6	160.6	160.6	160.6	160.6	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0



**Table 423 - Compliance Impacts and Cumulative Industry Costs by Model Year for Toyota and Total Fleet, Alternative PC2LT4**

Compliance Impacts and Cumulative Industry Costs by Model Year for Toyota and Total Fleet, Alternative PC2LT4												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
Fuel Economy												
Average Required (mpg)	37.1	37.4	40.4	43.6	48.4	50.0	51.8	53.6	55.5	57.5	59.5	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	7%	11%	15%	19%	23%	N/A
Average Achieved (mpg)	36.6	37.7	40.6	41.7	46.6	48.2	48.7	52.6	59.3	63.2	65.3	N/A
Total Regulatory Costs												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	0.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	0.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	-0.1	0.1
Sales Impacts												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 424 - Compliance Impacts and Cumulative Industry Costs by Model Year for Volvo and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for Volvo and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	36.0	36.4	39.4	42.6	47.4	49.0	50.8	52.7	54.6	56.7	58.7	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	8%	11%	16%	20%	24%	N/A
Average Achieved (mpg)	39.0	41.3	41.3	45.3	46.1	46.6	46.6	47.0	64.4	65.6	83.4	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 425 - Compliance Impacts and Cumulative Industry Costs by Model Year for VWA and Total Fleet, Alternative PC2LT4**

<b>Compliance Impacts and Cumulative Industry Costs by Model Year for VWA and Total Fleet, Alternative PC2LT4</b>												
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	Total
<b>Fuel Economy</b>												
Average Required (mpg)	37.9	38.2	41.3	44.8	49.6	51.3	53.1	55.0	57.0	59.0	61.0	N/A
Change from Baseline (%)	0%	0%	0%	0%	0%	4%	7%	11%	15%	19%	23%	N/A
Average Achieved (mpg)	33.8	35.2	40.3	42.7	45.6	47.4	51.4	51.5	63.5	71.5	80.5	N/A
<b>Total Regulatory Costs</b>												
Tech. (non-Off-Cycle/non-AC) Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.9
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.9
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.3	0.3	0.2	0.9
<b>Sales Impacts</b>												
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0

**Table 426 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Total)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Total)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	46.7	54.3	57.7	61.5	74.4
Percent Change from Baseline	0%	16%	24%	32%	59%
Average Achieved (mpg)	61.3	63.1	64.3	66.9	81.5
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	76.0	2.3	4.4	7.7	23.8
Off-Cycle Technology Costs (\$b)	2.7	5.3	5.3	5.3	5.3
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	78.6	7.7	9.8	13.1	29.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.3
Total Regulatory Costs (\$b)	81.5	2.3	4.4	7.7	24.1
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.03	-0.08	-0.12	-0.38

**Table 427 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Passenger Car Fleet by Alternative for Manufacturer (Total)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Passenger Car Fleet by Alternative for Manufacturer (Total)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	58.8	62.4	66.4	70.6	85.2
Percent Change from Baseline	0%	6%	13%	20%	45%
Average Achieved (mpg)	92.7	96.4	96.4	97.9	114.8
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	20.1	1.0	1.3	1.9	5.3
Off-Cycle Technology Costs (\$b)	0.4	0.7	0.7	0.7	0.7
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	20.4	1.7	2.0	2.7	6.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	20.9	1.0	1.3	1.9	5.4
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.10	-0.11	-0.10	-0.20

**Table 428 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Light Truck Fleet by Alternative for Manufacturer (Total)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Light Truck Fleet by Alternative for Manufacturer (Total)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	42.6	51.2	54.4	58.0	70.3
Percent Change from Baseline	0%	20%	28%	36%	65%
Average Achieved (mpg)	52.9	54.3	55.6	58.2	71.6
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	55.9	1.4	3.1	5.8	18.5
Off-Cycle Technology Costs (\$b)	2.3	4.6	4.6	4.6	4.6
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	58.2	5.9	7.7	10.4	23.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.3
Total Regulatory Costs (\$b)	60.7	1.4	3.1	5.8	18.6
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.07	0.03	-0.02	-0.18

**Table 429 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Domestic Car Fleet by Alternative for Manufacturer (Total)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Domestic Car Fleet by Alternative for Manufacturer (Total)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	58.0	61.6	65.5	69.7	84.1
Percent Change from Baseline	0%	6%	13%	20%	45%
Average Achieved (mpg)	99.3	108.6	104.3	103.8	119.4
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	10.3	1.0	0.6	0.8	2.1
Off-Cycle Technology Costs (\$b)	0.1	0.3	0.3	0.3	0.3
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	10.5	1.2	0.9	1.1	2.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	10.6	1.0	0.6	0.8	2.1
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.05	-0.05	-0.05	-0.10

**Table 430 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Imported Car Fleet by Alternative for Manufacturer (Total)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Imported Car Fleet by Alternative for Manufacturer (Total)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	59.5	63.2	67.2	71.5	86.3
Percent Change from Baseline	0%	6%	13%	20%	45%
Average Achieved (mpg)	87.0	86.8	89.7	92.8	110.8
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	9.7	0.0	0.7	1.1	3.3
Off-Cycle Technology Costs (\$b)	0.2	0.5	0.5	0.5	0.5
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	10.0	0.5	1.2	1.5	3.7
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	10.2	0.0	0.7	1.1	3.4
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.05	-0.06	-0.05	-0.10



**Table 431 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (BMW)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (BMW)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	49.2	56.0	59.7	63.5	76.8
Percent Change from Baseline	0%	14%	21%	29%	56%
Average Achieved (mpg)	66.1	67.2	68.6	66.4	75.1
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	1.6	0.0	0.1	0.0	0.2
Off-Cycle Technology Costs (\$b)	0.0	0.1	0.1	0.1	0.1
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	1.6	0.1	0.1	0.0	0.3
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.3
Total Regulatory Costs (\$b)	1.7	0.0	0.1	0.0	0.5
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	-0.01

**Table 432 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Ford)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Ford)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	41.4	49.2	52.3	55.7	67.5
Percent Change from Baseline	0%	19%	27%	35%	63%
Average Achieved (mpg)	48.3	49.0	51.0	54.4	69.0
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	9.7	0.2	0.5	1.2	3.8
Off-Cycle Technology Costs (\$b)	0.4	0.8	0.8	0.8	0.8
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	10.1	1.0	1.3	2.1	4.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	10.6	0.2	0.5	1.2	3.8
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.01	0.00	-0.01	-0.04

**Table 433 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (GM)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (GM)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	42.3	49.8	53.0	56.4	68.3
Percent Change from Baseline	0%	18%	25%	34%	62%
Average Achieved (mpg)	50.7	56.0	56.2	58.2	71.2
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	11.4	1.4	1.4	1.8	3.9
Off-Cycle Technology Costs (\$b)	0.4	0.8	0.8	0.8	0.8
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	11.8	2.2	2.2	2.7	4.7
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	12.2	1.4	1.4	1.8	3.9
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	-0.01	-0.04

**Table 434 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Honda)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Honda)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	51.1	58.3	62.0	66.0	79.8
Percent Change from Baseline	0%	14%	21%	29%	56%
Average Achieved (mpg)	66.9	70.5	71.4	77.0	90.4
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	5.6	0.4	0.3	0.8	1.7
Off-Cycle Technology Costs (\$b)	0.2	0.4	0.4	0.4	0.4
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	5.8	0.8	0.7	1.2	2.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	6.0	0.4	0.3	0.8	1.7
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.01	-0.01	-0.02	-0.04

**Table 435 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Hyundai Kia-H)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Hyundai Kia-H)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	51.9	58.6	62.3	66.3	80.2
Percent Change from Baseline	0%	13%	20%	28%	55%
Average Achieved (mpg)	71.4	74.1	77.2	77.3	99.1
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	4.6	0.2	0.4	0.5	2.6
Off-Cycle Technology Costs (\$b)	0.1	0.2	0.2	0.2	0.2
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	4.7	0.4	0.6	0.7	2.8
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	4.8	0.2	0.4	0.5	2.6
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.01	-0.01	-0.01	-0.03

**Table 436 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Hyundai Kia-K)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Hyundai Kia-K)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	51.7	58.6	62.4	66.3	80.3
Percent Change from Baseline	0%	13%	21%	28%	55%
Average Achieved (mpg)	75.0	78.6	82.2	87.6	102.9
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	3.0	0.1	0.3	0.4	1.1
Off-Cycle Technology Costs (\$b)	0.0	0.1	0.1	0.1	0.1
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	3.1	0.2	0.3	0.5	1.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	3.1	0.1	0.3	0.4	1.1
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	-0.01	-0.01	-0.02

**Table 437 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (JLR)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (JLR)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	43.7	52.4	55.8	59.4	72.0
Percent Change from Baseline	0%	20%	28%	36%	65%
Average Achieved (mpg)	52.6	51.7	55.7	59.7	77.3
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.3	0.0	0.1	0.1	0.2
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.3	0.1	0.1	0.1	0.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.3	0.0	0.1	0.1	0.2
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00

**Table 438 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Karma)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Karma)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	54.1	57.4	61.1	64.9	78.4
Percent Change from Baseline	0%	6%	13%	20%	45%
Average Achieved (mpg)	138.6	138.6	138.6	138.6	138.6
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00



**Table 439 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Lucid)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Lucid)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	54.1	57.4	61.1	64.9	78.4
Percent Change from Baseline	0%	6%	13%	20%	45%
Average Achieved (mpg)	170.6	170.6	170.6	170.6	170.6
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00

**Table 440 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mazda)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mazda)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	49.3	58.5	62.3	66.2	80.3
Percent Change from Baseline	0%	19%	26%	34%	63%
Average Achieved (mpg)	78.2	78.6	80.0	80.5	79.2
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	1.3	0.0	0.8	0.8	0.9
Off-Cycle Technology Costs (\$b)	0.0	0.1	0.1	0.1	0.1
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	1.3	0.1	0.9	0.9	0.9
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	1.4	0.0	0.8	0.8	0.9
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00

**Table 441 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mercedes-Benz)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mercedes-Benz)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	48.3	55.3	58.8	62.6	75.7
Percent Change from Baseline	0%	14%	22%	30%	57%
Average Achieved (mpg)	77.9	78.7	83.6	82.8	96.8
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	1.7	0.0	0.1	0.1	0.2
Off-Cycle Technology Costs (\$b)	0.1	0.2	0.2	0.2	0.2
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	1.8	0.2	0.3	0.3	0.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	1.9	0.0	0.1	0.1	0.2
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	-0.01

**Table 442 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mitsubishi)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Mitsubishi)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	55.1	62.6	66.6	70.9	85.8
Percent Change from Baseline	0%	14%	21%	29%	55%
Average Achieved (mpg)	74.5	78.2	65.6	87.0	94.4
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.5	0.0	-0.1	0.1	0.2
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.6	0.0	0.0	0.1	0.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.6	0.0	-0.1	0.1	0.2
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00

**Table 443 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Nissan)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Nissan)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	50.9	57.7	61.4	65.3	79.1
Percent Change from Baseline	0%	13%	21%	28%	55%
Average Achieved (mpg)	69.3	69.7	70.6	73.5	88.8
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	6.2	0.0	0.1	0.3	1.2
Off-Cycle Technology Costs (\$b)	0.2	0.3	0.3	0.3	0.3
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	6.3	0.4	0.4	0.6	1.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	6.5	0.0	0.1	0.3	1.2
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.01	-0.01	-0.01	-0.03

**Table 444 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Stellantis)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Stellantis)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	42.1	50.0	53.2	56.6	68.6
Percent Change from Baseline	0%	19%	26%	34%	63%
Average Achieved (mpg)	50.7	51.3	53.2	56.5	71.6
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	11.6	-0.2	0.2	1.1	3.8
Off-Cycle Technology Costs (\$b)	0.4	0.8	0.8	0.8	0.8
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	12.0	0.6	1.0	1.8	4.6
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	12.4	-0.2	0.2	1.1	3.8
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.01	0.00	-0.01	-0.04

**Table 445 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Subaru)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Subaru)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	49.9	59.2	62.9	67.0	81.2
Percent Change from Baseline	0%	19%	26%	34%	63%
Average Achieved (mpg)	64.9	65.8	65.8	67.5	84.0
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	3.4	0.0	0.0	0.1	0.9
Off-Cycle Technology Costs (\$b)	0.2	0.3	0.3	0.3	0.3
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	3.5	0.4	0.4	0.4	1.2
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	3.7	0.0	0.0	0.1	0.9
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	-0.02

**Table 446 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Tesla)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Tesla)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	54.1	57.8	61.5	65.4	79.0
Percent Change from Baseline	0%	7%	14%	21%	46%
Average Achieved (mpg)	160.6	160.6	160.6	160.6	160.6
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.0	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.01	-0.01	-0.01	-0.02



**Table 447 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Toyota)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Toyota)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	48.4	55.9	59.5	63.4	76.7
Percent Change from Baseline	0%	16%	23%	31%	59%
Average Achieved (mpg)	66.0	65.3	65.3	66.2	79.3
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	10.4	-0.1	-0.1	0.1	2.4
Off-Cycle Technology Costs (\$b)	0.5	0.9	0.9	0.9	0.9
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	10.8	0.8	0.8	1.1	3.4
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	11.4	-0.1	-0.1	0.1	2.4
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	-0.01	-0.02	-0.02	-0.06

**Table 448 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Volvo)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (Volvo)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fuel Economy</b>					
Average Required (mpg)	47.3	55.2	58.7	62.5	75.7
Percent Change from Baseline	0%	17%	24%	32%	60%
Average Achieved (mpg)	81.8	83.1	83.4	84.5	77.7
<b>Total Regulatory Costs</b>					
Technology Application Costs (\$b)	0.7	0.0	0.0	0.0	0.0
Off-Cycle Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	0.7	0.1	0.1	0.1	0.0
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	0.7	0.0	0.0	0.0	0.0
<b>Sales Impacts</b>					
Sales Change from Baseline (m)	0.00	0.00	0.00	0.00	0.00

**Table 449 - Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (VWA)**

<b>Compliance Impacts and Cumulative Industry Costs for MY 2022 to 2032 Total Fleet by Alternative for Manufacturer (VWA)</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fuel Economy					
Average Required (mpg)	49.6	57.4	61.0	65.0	78.7
Percent Change from Baseline	0%	16%	23%	31%	59%
Average Achieved (mpg)	75.1	78.9	80.5	80.6	105.4
Total Regulatory Costs					
Technology Application Costs (\$b)	4.0	0.2	0.2	0.2	0.8
Off-Cycle Technology Costs (\$b)	0.1	0.2	0.2	0.2	0.2
A/C Efficiency Technology Costs (\$b)	0.0	0.0	0.0	0.0	0.0
Subtotal Technology Costs (\$b)	4.1	0.4	0.5	0.4	1.1
Total Civil Penalties (\$b)	0.0	0.0	0.0	0.0	0.0
Total Regulatory Costs (\$b)	4.3	0.2	0.2	0.2	0.8
Sales Impacts					
Sales Change from Baseline (m)	0.00	0.00	0.00	-0.01	-0.02

## Powertrain Technology Penetration Rate, by Model Year

**Table 450 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, No Action Alternative (Baseline)**

Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, No Action Alternative (Baseline)						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	21	21	19	18	18	16
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	25	22	21	19	18
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	33	30	27	26	25	23
Mild Hybrid Powertrains	1.4	1.3	0.8	0.6	0.5	0.4
Strong Hybrid Powertrains Total	19.2	18.8	18.2	15.8	11.5	10.3
Plug-In Hybrid Powertrains	0.3	0.3	0.3	0.3	2.6	2.7
Battery Electric Vehicles (BEVs)	26.6	32.1	37.9	43.2	47.6	52.8
BEV 1	5.0	5.0	5.3	5.3	5.4	5.4
BEV 2	16.5	21.6	26.5	31.1	33.1	35.0
BEV 3	4.4	4.7	5.3	6.0	8.3	11.6
BEV 4	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	20	18	16	15	14
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	15	14	11	11	10	9
DCT Transmissions	2	1	1	1	1	1
CVT Transmissions	16	14	13	12	12	10

**Table 451 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, No Action Alternative (Baseline)**

Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, No Action Alternative (Baseline)						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	32	29	25	26	20
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	19	16	14	11	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	24	21	21	20	15
Mild Hybrid Powertrains	1.6	1.5	1.5	0.9	0.9	0.9
Strong Hybrid Powertrains Total	7.1	6.9	6.1	5.0	3.0	2.9
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.5	0.5
Battery Electric Vehicles (BEVs)	35.1	39.1	46.3	53.3	57.8	67.2
BEV 1	9.3	9.4	10.2	10.2	10.2	10.3
BEV 2	16.9	19.9	25.9	32.7	35.3	37.4
BEV 3	6.6	7.4	7.8	8.0	9.9	17.0
BEV 4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	17	17	16	12	9	8
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	5	5	2	2	2	1
DCT Transmissions	3	2	2	2	1	1
CVT Transmissions	32	30	27	26	26	19

**Table 452 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	16	15	15	15	15	14
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	27	25	25	23	22
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	37	33	30	29	27	26
Mild Hybrid Powertrains	1.3	1.2	0.4	0.4	0.4	0.2
Strong Hybrid Powertrains Total	24.8	24.3	23.8	20.8	15.6	13.8
Plug-In Hybrid Powertrains	0.4	0.4	0.4	0.4	3.6	3.6
Battery Electric Vehicles (BEVs)	22.6	28.9	34.1	38.5	42.7	46.0
BEV 1	2.9	3.0	3.1	3.1	3.1	3.1
BEV 2	16.3	22.4	26.8	30.4	32.1	33.8
BEV 3	3.4	3.5	4.2	5.0	7.5	9.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	22	21	19	18	17	17
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	20	18	16	15	14	13
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	9	6	6	6	6	6

**Table 453 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	27	32	28	21	21	16
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	23	20	16	16	14	9
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	25	21	21	20	15
Mild Hybrid Powertrains	0.3	0.3	0.3	0.3	0.3	0.3
Strong Hybrid Powertrains Total	6.1	5.1	5.1	4.6	2.7	2.7
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	1.0	1.0
Battery Electric Vehicles (BEVs)	38.1	41.8	50.9	58.7	61.6	72.0
BEV 1	7.1	7.2	7.4	7.4	7.4	7.4
BEV 2	14.9	17.0	25.9	33.7	35.8	38.2
BEV 3	11.2	12.7	12.8	12.8	13.6	21.5
BEV 4	4.8	4.8	4.8	4.8	4.8	4.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	13	13	12	6	4	4
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	7	7	2	2	2	2
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	34	32	28	27	27	17

**Table 454 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	33	32	30	29	30	24
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	18	16	12	9	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	23	22	21	20	15
Mild Hybrid Powertrains	2.8	2.6	2.6	1.5	1.5	1.5
Strong Hybrid Powertrains Total	8.1	8.6	7.0	5.3	3.2	3.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	32.2	36.5	41.9	48.1	54.0	62.5
BEV 1	11.4	11.6	12.9	12.9	12.9	13.2
BEV 2	18.8	22.8	25.9	31.7	34.8	36.6
BEV 3	2.1	2.1	3.0	3.4	6.3	12.6
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.2	0.2	0.2	0.2	0.2	0.2
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	21	20	19	17	14	12
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	3	2	2	2	1
DCT Transmissions	6	4	3	2	2	2
CVT Transmissions	29	28	26	25	25	20



**Table 455 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	21	21	19	18	18	16
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	25	23	21	20	18	16
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	32	29	26	25	23	21
Mild Hybrid Powertrains	1.7	1.6	1.1	1.1	1.1	0.6
Strong Hybrid Powertrains Total	17.9	17.5	17.0	15.4	11.1	9.8
Plug-In Hybrid Powertrains	0.7	0.7	0.7	0.7	3.0	3.2
Battery Electric Vehicles (BEVs)	28.9	34.4	40.2	44.6	49.0	54.4
BEV 1	4.9	5.0	5.4	5.4	5.4	5.4
BEV 2	18.8	23.9	28.6	31.7	33.3	35.1
BEV 3	4.4	4.8	5.5	6.7	9.5	13.2
BEV 4	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	17	16	14	13	12	11
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	16	15	13	12	11	10
DCT Transmissions	2	1	1	1	1	1
CVT Transmissions	17	15	14	13	13	10

**Table 456 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	16	15	15	15	14	14
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	26	24	23	22	21
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	36	32	29	28	26	26
Mild Hybrid Powertrains	1.1	1.0	0.4	0.4	0.3	0.2
Strong Hybrid Powertrains Total	23.0	22.4	22.0	20.2	14.9	13.1
Plug-In Hybrid Powertrains	1.0	1.0	1.0	1.0	4.2	4.3
Battery Electric Vehicles (BEVs)	25.3	31.6	36.7	40.0	44.4	47.5
BEV 1	2.9	3.0	3.1	3.1	3.1	3.1
BEV 2	19.1	25.1	29.3	30.9	32.5	33.9
BEV 3	3.3	3.5	4.3	6.0	8.9	10.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	18	15	14	14	14
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	21	19	18	17	16	15
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	9	6	7	7	6	6

**Table 457 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	32	29	25	25	19
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	21	18	15	13	11	6
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	22	19	18	17	12
Mild Hybrid Powertrains	2.9	2.7	2.7	2.7	2.9	1.6
Strong Hybrid Powertrains Total	7.0	6.8	6.0	5.0	3.0	2.9
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.1	0.6	0.6
Battery Electric Vehicles (BEVs)	36.4	40.6	47.9	54.3	58.8	69.2
BEV 1	9.2	9.4	10.3	10.3	10.3	10.3
BEV 2	18.2	21.3	27.2	33.5	35.2	37.4
BEV 3	6.6	7.5	8.0	8.2	10.9	19.0
BEV 4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	13	10	10	9	7	6
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	5	5	2	2	2	1
DCT Transmissions	3	2	2	2	1	1
CVT Transmissions	35	35	32	28	28	19

**Table 458 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	27	32	28	20	20	15
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	21	18	14	14	12	4
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	22	21	16	16	15	10
Mild Hybrid Powertrains	2.9	2.9	2.9	2.9	2.9	0.3
Strong Hybrid Powertrains Total	5.8	4.8	4.8	4.3	2.4	2.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.2	1.1	1.1
Battery Electric Vehicles (BEVs)	40.3	44.0	53.5	61.2	64.1	76.8
BEV 1	7.1	7.2	7.4	7.4	7.4	7.4
BEV 2	17.2	19.3	28.5	36.2	37.3	39.5
BEV 3	11.2	12.8	12.8	12.8	14.6	25.1
BEV 4	4.8	4.8	4.8	4.8	4.8	4.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	5	4	4	3	2	2
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	7	8	3	3	2	2
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	40	38	33	27	27	15

**Table 459 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	33	31	30	29	30	24
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	18	16	13	9	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	23	22	21	19	15
Mild Hybrid Powertrains	2.8	2.6	2.6	2.6	2.8	2.8
Strong Hybrid Powertrains Total	8.2	8.8	7.3	5.6	3.5	3.3
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	32.5	37.2	42.3	47.6	53.5	61.7
BEV 1	11.3	11.6	13.1	13.1	13.1	13.1
BEV 2	19.1	23.2	25.8	30.8	33.1	35.4
BEV 3	2.0	2.4	3.3	3.7	7.3	13.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.2	0.2	0.2	0.2	0.2	0.2
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	16	15	15	11	9
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	2	2	2	2	1
DCT Transmissions	6	3	3	2	2	1
CVT Transmissions	30	32	30	28	28	23

**Table 460 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	21	20	19	18	18	16
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	24	22	20	19	17	15
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	32	28	25	24	22	20
Mild Hybrid Powertrains	1.3	1.2	0.7	0.7	0.7	0.6
Strong Hybrid Powertrains Total	18.2	17.9	17.5	15.9	11.6	9.8
Plug-In Hybrid Powertrains	0.7	0.7	0.7	0.8	3.0	3.1
Battery Electric Vehicles (BEVs)	29.7	35.4	41.2	45.6	50.0	55.6
BEV 1	4.9	5.0	5.3	5.3	5.3	5.4
BEV 2	19.6	24.8	29.5	32.6	33.9	35.5
BEV 3	4.4	4.9	5.6	7.0	10.0	14.0
BEV 4	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	17	14	12	11	10	10
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	16	15	13	13	12	11
DCT Transmissions	2	1	1	1	1	1
CVT Transmissions	17	15	14	13	12	10

**Table 461 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	29	31	28	24	25	19
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	21	17	14	13	10	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	22	19	18	18	13
Mild Hybrid Powertrains	1.6	1.5	1.5	1.5	1.5	1.6
Strong Hybrid Powertrains Total	8.2	8.5	7.7	6.6	4.6	3.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.1	0.4	0.4
Battery Electric Vehicles (BEVs)	36.2	40.6	47.3	54.1	58.5	69.0
BEV 1	9.2	9.4	10.3	10.3	10.3	10.3
BEV 2	18.0	21.0	26.3	32.6	33.9	36.6
BEV 3	6.6	7.8	8.3	8.9	11.9	19.7
BEV 4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	13	11	10	9	7	6
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	5	5	2	2	2	1
DCT Transmissions	3	2	2	2	2	1
CVT Transmissions	33	33	31	27	26	19

**Table 462 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	16	15	15	15	14	14
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	26	24	22	21	20	19
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	35	31	27	26	25	24
Mild Hybrid Powertrains	1.1	1.0	0.4	0.4	0.3	0.2
Strong Hybrid Powertrains Total	22.9	22.3	22.0	20.2	14.9	12.9
Plug-In Hybrid Powertrains	1.0	1.0	1.0	1.0	4.2	4.4
Battery Electric Vehicles (BEVs)	26.6	33.1	38.3	41.7	46.1	49.3
BEV 1	2.9	3.0	3.0	3.0	3.1	3.0
BEV 2	20.4	26.6	31.0	32.6	33.9	34.9
BEV 3	3.3	3.5	4.3	6.1	9.1	11.3
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	18	16	13	12	12	12
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	21	20	18	18	16	15
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	9	6	6	6	6	6



**Table 463 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	27	32	29	21	21	16
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	17	13	13	11	6
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	22	18	18	17	12
Mild Hybrid Powertrains	0.3	0.3	0.3	0.3	0.3	0.3
Strong Hybrid Powertrains Total	8.4	7.3	7.3	6.9	5.0	2.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.2	0.9	0.9
Battery Electric Vehicles (BEVs)	38.8	42.6	50.8	58.5	61.7	74.4
BEV 1	7.1	7.2	7.7	7.7	7.7	7.7
BEV 2	15.7	17.4	25.1	32.8	34.1	38.9
BEV 3	11.2	13.2	13.3	13.3	15.1	23.0
BEV 4	4.8	4.8	4.8	4.8	4.8	4.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	7	6	6	4	4	4
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	7	8	4	4	2	2
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	37	35	32	26	25	16

**Table 464 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	29	28	27	28	21
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	18	15	12	9	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	21	20	19	18	13
Mild Hybrid Powertrains	2.8	2.6	2.6	2.6	2.6	2.8
Strong Hybrid Powertrains Total	8.1	9.7	8.0	6.3	4.2	4.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	33.7	38.6	43.9	49.7	55.3	63.7
BEV 1	11.3	11.6	12.8	12.8	12.8	12.8
BEV 2	20.2	24.5	27.6	32.3	33.7	34.3
BEV 3	2.0	2.6	3.5	4.5	8.8	16.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.2	0.2	0.2	0.2	0.2	0.2
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	15	14	13	10	8
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	2	1	1	1	0
DCT Transmissions	6	3	3	2	2	2
CVT Transmissions	29	31	30	28	27	22

**Table 465 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	21	20	19	18	17	15
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	24	22	19	17	16	14
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	31	27	24	22	21	19
Mild Hybrid Powertrains	1.3	1.2	0.6	0.8	0.9	0.8
Strong Hybrid Powertrains Total	17.6	17.1	16.3	14.2	9.9	8.5
Plug-In Hybrid Powertrains	0.5	1.0	1.4	2.1	4.4	4.6
Battery Electric Vehicles (BEVs)	30.9	36.8	42.4	47.6	52.3	57.3
BEV 1	4.9	4.9	5.1	5.2	5.2	5.2
BEV 2	20.5	25.4	29.2	33.2	34.3	35.3
BEV 3	4.8	5.7	7.3	8.5	12.0	16.0
BEV 4	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	16	13	11	9	8	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	16	16	14	14	13	12
DCT Transmissions	2	1	1	1	1	1
CVT Transmissions	17	14	14	12	12	10

**Table 466 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	29	31	29	25	24	19
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	21	17	14	13	10	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	22	19	18	17	12
Mild Hybrid Powertrains	1.6	1.5	1.5	1.9	2.4	2.4
Strong Hybrid Powertrains Total	6.9	6.6	5.8	4.7	2.9	2.8
Plug-In Hybrid Powertrains	0.0	0.6	0.6	0.6	1.1	1.1
Battery Electric Vehicles (BEVs)	37.6	42.3	48.5	55.3	60.2	69.6
BEV 1	9.5	9.6	10.3	10.3	10.3	10.3
BEV 2	19.1	21.2	25.8	32.0	32.6	33.8
BEV 3	6.6	9.0	10.0	10.5	14.9	23.0
BEV 4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	13	11	9	8	5	4
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	5	5	2	2	2	1
DCT Transmissions	3	2	2	2	1	1
CVT Transmissions	33	33	31	27	27	20

**Table 467 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	16	15	14	14	14	14
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	26	24	22	20	18	17
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	34	30	26	24	23	22
Mild Hybrid Powertrains	1.1	1.0	0.3	0.3	0.2	0.0
Strong Hybrid Powertrains Total	22.6	22.0	21.1	18.5	13.2	11.1
Plug-In Hybrid Powertrains	0.7	1.1	1.7	2.7	5.9	6.1
Battery Electric Vehicles (BEVs)	27.8	34.2	39.6	44.0	48.6	51.6
BEV 1	2.7	2.7	2.8	2.8	2.8	2.8
BEV 2	21.2	27.3	30.7	33.7	35.1	36.1
BEV 3	3.9	4.2	6.1	7.5	10.7	12.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	18	14	11	9	9	9
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	21	22	20	19	18	16
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	9	6	6	6	5	5

**Table 468 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	27	32	30	23	22	17
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	17	13	13	11	6
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	22	17	17	17	12
Mild Hybrid Powertrains	0.3	0.3	0.3	1.1	1.1	1.1
Strong Hybrid Powertrains Total	5.8	4.8	4.8	4.3	2.4	2.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.2	1.1	1.1
Battery Electric Vehicles (BEVs)	41.4	45.1	51.8	59.7	63.4	73.8
BEV 1	7.6	7.7	8.1	8.1	8.1	8.1
BEV 2	17.8	17.8	23.5	31.4	31.9	33.2
BEV 3	11.2	14.9	15.4	15.4	18.7	27.7
BEV 4	4.8	4.8	4.8	4.8	4.8	4.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	7	6	6	4	2	1
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	7	8	3	3	2	2
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	37	35	34	27	28	18

**Table 469 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	29	27	26	27	20
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	18	15	12	9	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	21	20	19	17	12
Mild Hybrid Powertrains	2.8	2.6	2.6	2.6	3.8	3.8
Strong Hybrid Powertrains Total	7.9	8.4	6.8	5.2	3.3	3.1
Plug-In Hybrid Powertrains	0.0	1.1	1.1	1.1	1.1	1.1
Battery Electric Vehicles (BEVs)	33.8	39.6	45.2	51.0	57.1	65.4
BEV 1	11.3	11.6	12.5	12.5	12.5	12.5
BEV 2	20.4	24.6	28.0	32.6	33.3	34.4
BEV 3	2.0	3.3	4.8	5.8	11.2	18.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.2	0.2	0.2	0.2	0.2	0.2
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	15	13	12	9	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	2	1	1	1	1
DCT Transmissions	6	3	3	2	2	1
CVT Transmissions	29	30	29	27	26	21

**Table 470 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	20	19	18	15	14	10
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	24	19	16	13	9	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	31	24	20	17	13	9
Mild Hybrid Powertrains	1.3	1.2	0.6	0.5	0.5	0.6
Strong Hybrid Powertrains Total	16.9	17.1	16.2	12.9	9.4	7.9
Plug-In Hybrid Powertrains	0.7	0.9	1.3	3.1	5.5	6.8
Battery Electric Vehicles (BEVs)	32.1	40.9	47.4	54.5	61.3	68.1
BEV 1	4.9	4.9	5.1	5.1	5.1	5.1
BEV 2	20.9	25.9	28.8	32.1	33.0	35.1
BEV 3	5.5	9.3	12.8	16.4	22.4	27.1
BEV 4	0.8	0.8	0.8	0.8	0.8	0.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	16	9	5	3	2	2
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	16	17	16	14	10	7
DCT Transmissions	2	1	1	1	0	0
CVT Transmissions	17	14	14	12	11	9



**Table 471 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	29	29	26	20	20	13
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	14	11	10	7	3
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	17	14	13	12	6
Mild Hybrid Powertrains	1.6	1.5	1.5	0.9	1.0	0.9
Strong Hybrid Powertrains Total	6.9	7.9	6.8	5.8	3.7	3.6
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	1.4	1.5
Battery Electric Vehicles (BEVs)	38.5	48.1	54.9	63.1	67.9	78.1
BEV 1	9.5	9.7	10.2	10.2	10.2	10.2
BEV 2	19.1	23.9	28.6	34.5	35.8	38.1
BEV 3	7.5	12.1	13.6	16.0	19.5	27.3
BEV 4	2.4	2.4	2.4	2.4	2.4	2.4
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	12	8	6	3	2	0
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	5	5	3	4	2	2
DCT Transmissions	3	2	2	1	1	1
CVT Transmissions	33	29	28	22	22	14

**Table 472 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	16	14	14	13	12	8
Cylinder Deactivation	1	1	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	25	21	18	15	11	9
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	34	27	23	19	14	10
Mild Hybrid Powertrains	1.1	1.0	0.3	0.3	0.2	0.4
Strong Hybrid Powertrains Total	21.6	21.3	20.4	16.2	12.0	10.0
Plug-In Hybrid Powertrains	1.0	1.2	1.9	4.5	7.4	9.3
Battery Electric Vehicles (BEVs)	29.1	37.6	44.0	50.5	58.1	63.4
BEV 1	2.7	2.7	2.7	2.7	2.7	2.7
BEV 2	21.8	26.8	28.8	31.1	31.7	33.7
BEV 3	4.6	8.1	12.4	16.7	23.7	27.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	17	10	4	3	2	2
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	20	22	21	19	14	9
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	9	7	7	7	6	6

**Table 473 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	27	31	29	18	18	13
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	18	13	9	9	7	2
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	22	17	12	12	12	7
Mild Hybrid Powertrains	0.3	0.3	0.3	0.3	0.3	0.3
Strong Hybrid Powertrains Total	5.8	4.8	4.8	4.0	2.1	2.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.8	0.8
Battery Electric Vehicles (BEVs)	43.3	50.3	57.4	68.8	72.0	81.6
BEV 1	7.6	7.7	8.3	8.3	8.3	8.3
BEV 2	17.8	17.8	22.9	30.9	31.9	33.5
BEV 3	13.1	20.1	21.5	24.9	27.0	35.0
BEV 4	4.8	4.8	4.8	4.8	4.8	4.8
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	5	4	2	1	0	0
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	7	8	4	5	4	3
DCT Transmissions	1	1	1	1	0	0
CVT Transmissions	37	33	30	21	21	12

**Table 474 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	26	24	22	21	14
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	16	14	11	7	4
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	16	15	14	12	6
Mild Hybrid Powertrains	2.8	2.6	2.6	1.5	1.7	1.4
Strong Hybrid Powertrains Total	7.9	10.9	8.8	7.6	5.4	5.1
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	1.9	2.2
Battery Electric Vehicles (BEVs)	33.8	45.9	52.4	57.5	63.9	74.6
BEV 1	11.3	11.6	12.2	12.2	12.2	12.2
BEV 2	20.4	29.9	34.3	38.0	39.6	42.7
BEV 3	2.1	4.4	5.9	7.3	12.1	19.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.2	0.2	0.2	0.2	0.2	0.2
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	11	9	5	3	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	2	2	4	1	0
DCT Transmissions	6	3	3	2	2	1
CVT Transmissions	30	26	25	23	22	16

**Table 475 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	20	18	16	15	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	18	16	15	15	7
Mild Hybrid Powertrains	1.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	44.3	48.2	48.4	46.1	45.1	34.7
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.5	31.5	33.5	38.3	39.5	58.5
BEV 1	4.1	4.1	4.0	4.1	4.1	4.1
BEV 2	14.9	20.0	22.0	25.6	26.4	35.2
BEV 3	7.5	7.5	7.5	8.6	9.1	19.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	24	18	16	15	15	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	0	0	0	0	0
DCT Transmissions	3	2	2	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 476 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	3	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	45	36	28	28	28	28
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	34	27	27	27	26
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	26.8	26.5	29.7	29.7	29.7	28.7
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	25.8	35.2	39.6	39.7	39.7	41.0
BEV 1	4.3	4.3	4.2	4.3	4.3	4.3
BEV 2	20.6	30.0	31.5	31.5	31.5	32.9
BEV 3	1.0	1.0	3.9	3.9	3.9	3.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	11	11	11	11	11	11
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	35	26	19	19	19	19
DCT Transmissions	2	2	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 477 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	8	8	7	7	7	5
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	23	21	17	17
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	22	21	18	15
Mild Hybrid Powertrains	2.8	2.8	2.8	1.5	1.5	1.5
Strong Hybrid Powertrains Total	37.5	37.6	37.6	36.5	16.8	16.9
Plug-In Hybrid Powertrains	2.1	2.1	2.1	2.1	19.0	18.9
Battery Electric Vehicles (BEVs)	24.1	24.1	30.0	33.5	40.2	42.6
BEV 1	2.7	2.7	3.4	3.4	3.4	3.4
BEV 2	21.4	21.3	26.6	30.1	33.8	36.3
BEV 3	0.0	0.0	0.0	0.0	2.9	2.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	14	14	14	14	14	14
9-Speed Automatic	2	0	0	0	0	0
10-Speed Automatic	16	18	13	12	9	6
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	3	3	3	1	2	2

**Table 478 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	6	14	11	11	12	12
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	44	39	39	40	40	31
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	50	48	48	48	48	40
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	5.8	4.1	4.1	4.1	0.9	0.9
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	36.3	42.2	45.1	44.8	48.0	56.0
BEV 1	9.3	9.3	9.2	9.1	9.2	9.2
BEV 2	25.1	28.6	31.5	31.4	32.8	33.9
BEV 3	1.9	4.4	4.4	4.3	6.1	13.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	27	25	25	25	25	25
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	31	28	25	25	25	17



**Table 479 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	59	52	52	52	47	35
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	10	10	10	7	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	59	51	52	52	44	39
Mild Hybrid Powertrains	0.8	0.8	0.8	0.8	0.0	0.0
Strong Hybrid Powertrains Total	7.5	0.9	0.9	0.9	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.9	36.9	36.6	36.6	45.6	57.0
BEV 1	4.4	4.3	4.1	4.1	4.2	4.2
BEV 2	17.4	31.4	31.4	31.4	34.9	38.4
BEV 3	1.1	1.1	1.1	1.1	6.5	14.4
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	35	28	28	28	22	17
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	2	2	2	2	2	2
DCT Transmissions	8	8	8	8	5	5
CVT Transmissions	25	25	25	25	25	18

**Table 480 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	55	55	45	44	44	35
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	16	16	16	16	3	3
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	30	30	30	30	30	21
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	2.6	2.6	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.5	22.5	39.6	40.1	53.0	62.3
BEV 1	2.8	2.8	3.7	3.7	3.7	3.7
BEV 2	19.1	19.1	35.3	35.3	37.5	37.5
BEV 3	0.6	0.6	0.6	1.1	11.8	21.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	39	39	34	34	25	25
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	6	6	6	6	3	2
CVT Transmissions	30	30	20	19	20	11

**Table 481 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	28	23	18	18
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	10	10	10	10	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	28	28	28	23	18	18
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	30.8	30.5	41.4	30.6
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.6	31.6	31.6	36.8	40.3	51.1
BEV 1	4.9	4.9	4.9	4.8	4.9	4.9
BEV 2	25.5	25.5	25.5	29.8	33.5	44.1
BEV 3	1.2	1.2	1.2	2.1	1.9	2.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	1	1	1	1	1	1
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	37	37	37	32	18	18
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 482 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	50.0	50.0	50.0	50.0	50.0	50.0
BEV 2	50.0	50.0	50.0	50.0	50.0	50.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 483 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	0.0	0.0	0.0	0.0	0.0	0.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	100.0	100.0	100.0	100.0	100.0	100.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 484 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	57	57	37	37	37	37
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	19.2	19.3	12.4	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	23.6	23.6	51.0	63.4	63.4	63.3
BEV 1	5.6	5.6	6.3	6.3	6.3	6.3
BEV 2	16.1	16.1	42.3	42.3	42.4	42.3
BEV 3	2.0	2.0	2.4	14.7	14.7	14.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	51	51	35	35	35	36
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	2	2	1	1	1	1
CVT Transmissions	5	5	0	0	0	0

**Table 485 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	44	35	32	13	12	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	4	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	42	35	32	13	12	10
Mild Hybrid Powertrains	2.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	14.3	18.1	21.7	21.8	17.4	17.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	37.5	47.4	46.4	65.4	70.1	72.4
BEV 1	8.1	8.0	8.1	8.2	8.2	8.3
BEV 2	22.0	32.0	32.3	32.3	36.6	36.6
BEV 3	7.0	7.0	5.7	24.7	24.9	27.3
BEV 4	0.4	0.4	0.3	0.3	0.3	0.3
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	42	28	26	9	9	9
DCT Transmissions	6	6	6	4	4	1
CVT Transmissions	0	0	0	0	0	0

**Table 486 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	39	39
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	29.8	29.7	29.7	29.7	48.8	48.8
BEV 1	4.2	4.2	4.2	4.2	4.2	4.2
BEV 2	25.5	25.5	25.5	25.5	44.6	44.6
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	70	70	70	70	51	51



**Table 487 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	41	43	41	41	29
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	1	1	1	11	11	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	13	13	13	13
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	1.7	1.7	1.7	1.7	0.6	0.6
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	17.9	33.9	35.8	38.1	39.1	52.0
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	12.3	28.3	30.2	32.5	33.5	36.7
BEV 3	0.1	0.1	0.1	0.1	0.1	9.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	26	26	24	24	24	23
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	55	38	38	36	36	24

**Table 488 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	12	12	12	12	12	12
Cylinder Deactivation	4	4	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	25	25	24	24	22	20
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	32	31	23	23	23	23
Mild Hybrid Powertrains	5.5	5.5	1.0	1.0	1.0	1.0
Strong Hybrid Powertrains Total	30.8	30.8	32.8	25.0	24.2	23.8
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.8	1.1
Battery Electric Vehicles (BEVs)	20.5	21.2	31.8	39.7	40.8	43.4
BEV 1	2.8	2.8	3.3	3.3	3.3	3.3
BEV 2	12.6	13.2	23.4	31.2	32.3	34.6
BEV 3	5.1	5.1	5.1	5.1	5.1	5.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	28	28	23	23	21	21
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	20	20	13	13	13	10
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 489 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	57	38	38	37	37	37
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	19	19	16	16	17	17
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	61	45	45	43	44	44
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.7	42.8	44.9	46.4	45.9	46.5
BEV 1	3.4	3.5	3.5	3.5	3.5	3.5
BEV 2	11.0	29.7	29.7	31.1	30.9	31.5
BEV 3	8.3	9.6	11.8	11.8	11.5	11.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	3	2	1	1	1	1
CVT Transmissions	75	55	54	53	53	53

**Table 490 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	18.3	18.3	18.3	18.3	18.3	18.3
BEV 3	57.5	57.5	57.5	57.5	57.5	57.5
BEV 4	24.2	24.2	24.2	24.2	24.2	24.2
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 491 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	32	30	24	24	24
Cylinder Deactivation	0	0	0	0	0	1
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	27	25	21	20	20
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	23	20	20	20	20
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	18.8	18.6	12.3	10.1	3.3	0.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	20.2	21.1	31.4	43.7	51.3	55.2
BEV 1	7.6	7.9	8.8	8.8	8.9	9.3
BEV 2	8.6	9.0	17.4	29.7	33.4	33.9
BEV 3	3.9	4.2	5.2	5.2	9.1	11.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	43	43	40	30	29	28
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	5	5	5	5	5	5
DCT Transmissions	1	1	1	1	1	0
CVT Transmissions	11	11	11	11	11	11

**Table 492 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	64	64	64	40	40	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	24.7	24.6	24.6	23.9	24.0	10.5
Strong Hybrid Powertrains Total	4.7	4.7	4.7	4.6	2.9	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.4	31.4	31.3	55.3	56.9	73.3
BEV 1	6.1	6.0	6.0	6.0	6.1	6.1
BEV 2	10.0	9.9	9.9	32.1	33.7	50.1
BEV 3	15.4	15.4	15.4	17.2	17.2	17.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	64	64	64	40	40	27
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 493 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, No Action Alternative (Baseline)**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	11	11
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	33	24	24	24	15	13
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	36	36	36	26	24
Mild Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Strong Hybrid Powertrains Total	31.4	31.5	31.5	13.2	14.1	7.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.7	32.8	32.8	51.1	60.1	69.1
BEV 1	6.3	6.3	6.3	6.3	6.3	6.3
BEV 2	16.8	24.9	24.8	41.6	41.7	41.7
BEV 3	1.6	1.6	1.6	3.2	12.1	21.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	32	30	30	30	23	23
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	4	4	4	2	1
DCT Transmissions	9	1	1	1	1	0
CVT Transmissions	0	0	0	0	0	0

**Table 494 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	20	18	16	15	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	18	16	15	15	7
Mild Hybrid Powertrains	1.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	44.3	48.2	48.5	46.1	45.2	33.3
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.5	31.5	33.5	38.3	39.5	59.9
BEV 1	4.1	4.1	4.0	4.1	4.1	4.1
BEV 2	14.9	20.0	21.9	25.6	26.3	34.2
BEV 3	7.5	7.5	7.5	8.6	9.1	21.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	24	18	7	7	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	0	9	9	8	0
DCT Transmissions	3	2	2	0	0	0
CVT Transmissions	0	0	0	0	0	0



**Table 495 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	3	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	41	33	26	26	26	26
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	32	24	24	24	24
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	26.6	26.3	29.5	29.5	29.5	28.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	29.5	37.8	42.1	42.2	42.2	43.3
BEV 1	4.3	4.2	4.2	4.2	4.3	4.3
BEV 2	24.2	32.5	34.0	34.0	34.1	35.1
BEV 3	1.0	1.0	3.9	3.9	3.9	3.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	8	8	8	8	8	8
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	34	26	20	20	20	20
DCT Transmissions	2	2	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 496 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	8	8	7	7	7	5
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	23	22	19	18
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	22	21	18	15
Mild Hybrid Powertrains	2.8	2.8	2.7	2.8	2.8	2.8
Strong Hybrid Powertrains Total	28.0	28.0	28.0	26.9	7.3	7.5
Plug-In Hybrid Powertrains	5.0	5.0	5.0	5.0	22.1	22.1
Battery Electric Vehicles (BEVs)	30.8	30.8	36.5	38.6	44.9	47.4
BEV 1	2.7	2.7	3.4	3.4	3.4	3.4
BEV 2	28.1	28.1	33.1	33.1	34.2	36.7
BEV 3	0.0	0.0	0.0	2.2	7.2	7.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	14	14	14	13	12	12
9-Speed Automatic	2	0	0	0	0	0
10-Speed Automatic	16	18	13	14	10	8
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	3	3	3	3	3	3

**Table 497 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	6	14	11	11	11	12
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	44	39	39	39	39	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	46	44	44	44	44	36
Mild Hybrid Powertrains	4.2	4.1	4.1	4.1	4.2	0.0
Strong Hybrid Powertrains Total	5.7	4.0	4.0	4.0	0.8	0.8
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	36.4	42.3	45.2	45.2	48.3	60.5
BEV 1	9.3	9.2	9.2	9.2	9.3	9.3
BEV 2	25.2	28.7	31.6	31.6	32.9	34.1
BEV 3	1.9	4.4	4.4	4.4	6.1	17.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	27	25	25	25	25	25
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	31	28	25	25	25	13

**Table 498 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	58	51	51	51	46	34
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	9	9	9	6	6
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	58	50	50	50	43	38
Mild Hybrid Powertrains	0.8	0.8	0.8	0.8	0.0	0.0
Strong Hybrid Powertrains Total	7.5	0.9	0.9	0.9	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.2	39.2	39.3	39.2	48.2	59.6
BEV 1	4.4	4.3	4.3	4.3	4.4	4.4
BEV 2	18.7	33.0	33.0	33.0	34.8	38.3
BEV 3	1.1	1.9	1.9	1.9	9.0	16.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	35	28	28	28	22	17
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	2	1	1	1	1	1
DCT Transmissions	8	8	8	8	5	5
CVT Transmissions	24	24	24	24	24	17

**Table 499 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	55	55	44	43	41	32
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	16	16	15	15	3	2
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	30	30	30	30	30	20
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	1.0	1.0
Strong Hybrid Powertrains Total	2.6	2.6	0.9	0.9	0.9	0.9
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.5	22.5	39.9	40.6	55.2	64.5
BEV 1	2.8	2.8	4.2	4.2	4.2	4.2
BEV 2	19.1	19.2	33.9	34.3	36.1	37.6
BEV 3	0.6	0.6	1.8	2.1	14.9	22.6
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	39	39	25	25	16	16
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	6	6	6	6	3	2
CVT Transmissions	30	30	28	27	25	16

**Table 500 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	28	23	16	15
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	10	10	10	10	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	28	28	28	23	16	15
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	30.8	30.5	39.6	29.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	10.6
Battery Electric Vehicles (BEVs)	31.7	31.7	31.7	36.8	44.4	44.6
BEV 1	4.9	4.9	4.9	4.8	4.8	4.8
BEV 2	25.5	25.5	25.5	29.8	33.5	33.6
BEV 3	1.3	1.3	1.3	2.1	6.1	6.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	1	1	1	1	1	1
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	37	37	37	32	15	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 501 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	50.0	50.0	50.0	50.0	50.0	50.0
BEV 2	50.0	50.0	50.0	50.0	50.0	50.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 502 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	0.0	0.0	0.0	0.0	0.0	0.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	100.0	100.0	100.0	100.0	100.0	100.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0



**Table 503 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	57	57	37	37	37	37
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	19.3	19.3	12.4	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	23.5	23.5	51.0	63.4	63.4	63.4
BEV 1	5.5	5.5	6.3	6.3	6.3	6.3
BEV 2	16.0	16.0	42.3	42.3	42.4	42.4
BEV 3	2.0	2.0	2.4	14.7	14.7	14.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	51	50	35	35	35	35
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	2	2	1	1	1	1
CVT Transmissions	5	5	1	1	1	1

**Table 504 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	43	33	30	11	11	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	4	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	33	30	11	11	8
Mild Hybrid Powertrains	2.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	15.9	19.7	22.7	22.7	18.5	18.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	37.3	47.2	47.4	66.1	70.7	73.0
BEV 1	8.0	8.0	8.0	8.0	8.1	8.1
BEV 2	21.8	31.8	31.8	32.5	36.8	36.8
BEV 3	7.0	7.0	7.2	25.2	25.4	27.8
BEV 4	0.4	0.4	0.4	0.4	0.4	0.4
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	42	29	25	9	8	8
DCT Transmissions	5	5	5	2	2	0
CVT Transmissions	0	0	0	0	0	0

**Table 505 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	35	35
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	29.8	29.7	29.7	29.7	52.7	52.6
BEV 1	4.2	4.2	4.2	4.2	4.2	4.2
BEV 2	25.5	25.5	25.5	25.5	48.5	48.4
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	70	70	70	70	47	47

**Table 506 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	41	43	41	41	29
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	1	1	1	11	11	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	13	13	13	13
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	1.1	1.1	1.1	1.1	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	18.5	34.5	36.4	38.7	39.7	52.6
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	12.9	29.0	30.8	33.1	33.0	36.1
BEV 3	0.1	0.1	0.1	0.1	1.2	11.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	26	26	24	24	24	23
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	54	38	38	36	36	24

**Table 507 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	12	12	11	11	11	11
Cylinder Deactivation	4	4	1	1	1	1
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	17	17	16	16	15	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	18	18	18	18
Mild Hybrid Powertrains	4.5	4.5	0.9	0.9	0.9	0.9
Strong Hybrid Powertrains Total	30.8	30.8	32.8	32.2	31.4	31.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.2	1.0	1.4
Battery Electric Vehicles (BEVs)	28.2	28.9	39.1	39.6	40.7	43.4
BEV 1	2.8	2.8	3.3	3.3	3.3	3.3
BEV 2	20.2	20.9	30.7	31.1	32.3	34.5
BEV 3	5.1	5.1	5.1	5.1	5.1	5.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	20	19	15	15	15	15
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	20	21	13	13	12	10
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 508 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	58	38	38	36	36	36
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	19	16	16	16	16
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	62	45	45	43	43	43
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	21.6	43.4	45.5	47.0	47.0	47.6
BEV 1	3.3	3.5	3.5	3.5	3.5	3.5
BEV 2	10.5	30.3	30.2	31.7	31.7	32.2
BEV 3	7.8	9.7	11.8	11.8	11.8	11.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	3	2	0	0	0	0
CVT Transmissions	76	55	54	53	53	52

**Table 509 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	18.3	18.3	18.2	18.3	18.3	18.3
BEV 3	57.5	57.5	57.6	57.5	57.5	57.5
BEV 4	24.2	24.2	24.2	24.2	24.2	24.2
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 510 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	32	30	24	24	24
Cylinder Deactivation	0	0	0	0	0	1
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	27	25	21	20	20
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	23	20	20	20	20
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	18.9	18.7	12.3	10.1	3.3	0.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	19.9	21.1	31.4	43.6	51.3	54.3
BEV 1	7.6	7.8	8.8	8.8	8.9	8.9
BEV 2	8.5	9.0	17.4	29.7	33.3	33.7
BEV 3	3.9	4.2	5.2	5.2	9.1	11.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	37	34	31	27	27	26
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	6	5	5	5	5	5
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	18	21	20	13	13	13



**Table 511 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	64	64	64	40	40	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	24.7	24.6	24.6	23.9	24.0	10.5
Strong Hybrid Powertrains Total	4.7	4.7	4.7	4.6	2.9	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.4	31.4	31.3	55.3	57.0	73.4
BEV 1	6.0	6.0	6.0	6.0	6.1	6.1
BEV 2	10.0	9.9	9.9	32.1	33.7	50.1
BEV 3	15.4	15.4	15.4	17.2	17.2	17.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	41	41	27	11	11	12
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	23	23	37	29	29	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 512 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC1LT3**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	11	11
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	33	24	24	22	13	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	36	36	34	24	22
Mild Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Strong Hybrid Powertrains Total	31.4	31.5	31.6	13.2	14.1	7.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.7	32.8	32.7	53.2	62.1	71.1
BEV 1	6.3	6.3	6.3	6.3	6.3	6.3
BEV 2	16.8	24.9	24.8	35.8	37.6	37.7
BEV 3	1.6	1.6	1.6	11.0	18.2	27.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	21	15	10	10	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	14	20	25	22	16	15
DCT Transmissions	9	1	1	1	1	0
CVT Transmissions	0	0	0	0	0	0

**Table 513 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	20	18	16	15	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	18	16	15	15	7
Mild Hybrid Powertrains	1.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	44.3	48.2	48.5	46.1	45.2	32.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.5	31.5	33.5	38.3	39.5	61.2
BEV 1	4.1	4.1	4.0	4.0	4.1	4.1
BEV 2	15.0	20.0	21.9	25.6	26.3	34.2
BEV 3	7.5	7.5	7.5	8.7	9.1	22.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	24	18	7	7	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	0	9	9	8	0
DCT Transmissions	3	2	2	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 514 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	3	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	39	31	22	22	22	22
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	38	29	21	21	21	21
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	26.2	26.0	29.8	29.8	29.7	28.7
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	32.0	40.8	45.5	45.5	45.5	46.5
BEV 1	4.3	4.2	4.2	4.2	4.3	4.3
BEV 2	26.7	35.5	37.1	37.1	37.1	37.1
BEV 3	1.0	1.0	4.2	4.2	4.2	5.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	6	6	6	6	6	6
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	34	25	18	18	18	18
DCT Transmissions	2	2	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 515 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	8	8	8	8	8	5
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	23	22	18	18
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	22	21	18	15
Mild Hybrid Powertrains	2.8	2.8	2.7	2.7	2.8	2.8
Strong Hybrid Powertrains Total	28.0	28.0	28.0	26.9	7.3	7.4
Plug-In Hybrid Powertrains	5.0	5.0	5.0	5.0	22.0	22.0
Battery Electric Vehicles (BEVs)	30.8	30.8	36.1	38.2	44.6	47.2
BEV 1	2.7	2.7	3.0	3.0	3.2	3.2
BEV 2	28.1	28.1	33.1	33.1	34.2	36.7
BEV 3	0.0	0.0	0.0	2.2	7.2	7.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	14	9	9	8	8	8
9-Speed Automatic	2	0	0	0	0	0
10-Speed Automatic	16	23	18	18	15	12
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	3	3	3	3	3	3

**Table 516 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	6	14	11	11	11	12
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	39	35	35	35	35	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	46	43	44	44	43	36
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	9.8	8.1	8.1	8.1	5.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	36.4	42.4	45.3	45.2	48.4	61.3
BEV 1	9.3	9.2	9.2	9.2	9.3	9.3
BEV 2	25.2	28.0	30.9	30.9	32.3	37.6
BEV 3	1.9	5.1	5.1	5.1	6.9	14.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	27	25	25	25	25	25
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	26	24	21	21	21	13

**Table 517 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	56	45	45	45	40	28
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	8	8	8	6	6
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	58	46	46	46	40	33
Mild Hybrid Powertrains	0.8	0.8	0.8	0.8	0.0	0.7
Strong Hybrid Powertrains Total	7.5	3.9	3.9	3.9	3.0	3.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.9	42.7	42.7	42.7	50.9	62.7
BEV 1	4.4	4.3	4.3	4.3	4.4	4.4
BEV 2	21.4	36.0	36.0	36.0	35.9	35.9
BEV 3	1.1	2.4	2.4	2.4	10.6	22.4
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	35	24	24	24	19	14
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	2	0	0	0	0	0
DCT Transmissions	8	8	8	8	6	6
CVT Transmissions	21	21	21	21	21	14

**Table 518 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	55	55	43	40	40	31
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	16	16	15	15	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	30	30	30	30	29	19
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	2.6	2.6	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	1.4	1.4	1.4	1.4
Battery Electric Vehicles (BEVs)	22.5	22.5	40.3	43.0	58.1	67.4
BEV 1	2.8	2.8	4.2	4.2	4.2	4.2
BEV 2	19.1	19.1	34.3	34.3	36.6	38.1
BEV 3	0.6	0.6	1.8	4.5	17.3	25.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	39	39	29	27	19	19
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	6	6	6	6	0	0
CVT Transmissions	30	30	23	23	21	12



**Table 519 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	28	23	16	15
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	10	10	10	10	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	28	28	28	23	16	15
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	30.8	30.5	34.6	24.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	10.6
Battery Electric Vehicles (BEVs)	31.7	31.7	31.7	36.8	49.4	50.0
BEV 1	4.9	4.9	4.9	4.8	4.8	4.8
BEV 2	25.5	25.5	25.5	29.8	33.5	33.6
BEV 3	1.3	1.3	1.3	2.1	11.1	11.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	1	1	1	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	37	37	37	33	16	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 520 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	50.0	50.0	50.0	50.0	50.0	50.0
BEV 2	50.0	50.0	50.0	50.0	50.0	50.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 521 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	0.0	0.0	0.0	0.0	0.0	0.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	100.0	100.0	100.0	100.0	100.0	100.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 522 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	57	57	37	37	37	37
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	19.3	19.3	12.4	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	23.5	23.5	51.0	63.4	63.4	63.4
BEV 1	5.5	5.5	6.3	6.3	6.3	6.3
BEV 2	16.0	16.0	42.3	42.3	42.4	42.4
BEV 3	2.0	2.0	2.4	14.7	14.7	14.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	51	50	35	35	35	35
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	2	2	1	1	1	1
CVT Transmissions	5	5	1	1	1	1

**Table 523 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	43	32	29	10	10	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	4	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	32	29	10	10	8
Mild Hybrid Powertrains	2.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	14.5	16.9	19.8	19.7	15.5	15.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	38.7	50.8	51.0	69.9	74.5	76.8
BEV 1	8.1	8.0	8.0	8.0	8.1	8.1
BEV 2	23.3	35.4	35.5	35.4	35.3	35.3
BEV 3	7.0	7.0	7.2	26.1	30.7	33.0
BEV 4	0.4	0.4	0.4	0.4	0.4	0.4
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	42	28	25	8	8	8
DCT Transmissions	5	5	5	2	2	0
CVT Transmissions	0	0	0	0	0	0

**Table 524 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	50	50
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	29.8	29.7	29.7	29.7	37.7	38.3
BEV 1	4.2	4.2	4.2	4.2	4.2	4.2
BEV 2	25.6	25.5	25.5	25.5	33.5	34.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	70	70	70	70	62	62

**Table 525 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	41	43	41	41	29
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	1	1	1	11	11	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	13	13	13	13
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	1.1	1.1	1.1	1.1	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	18.5	34.5	36.4	38.7	39.7	52.6
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	12.9	28.9	30.8	33.1	33.0	36.2
BEV 3	0.1	0.1	0.1	0.1	1.2	10.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	26	26	24	24	24	23
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	55	38	38	36	36	24

**Table 526 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	12	12	12	12	12	12
Cylinder Deactivation	4	4	1	1	1	1
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	14	14	13	13	12	9
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	24	16	16	16	16
Mild Hybrid Powertrains	4.5	4.5	0.9	0.9	0.9	0.9
Strong Hybrid Powertrains Total	30.8	30.8	32.8	32.2	31.4	31.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.2	0.6	1.0
Battery Electric Vehicles (BEVs)	31.2	31.9	41.7	42.1	43.6	46.2
BEV 1	2.8	2.8	3.2	3.3	3.3	3.3
BEV 2	23.3	23.9	33.3	33.7	35.2	35.2
BEV 3	5.1	5.1	5.1	5.1	5.1	7.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	17	16	12	12	12	12
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	20	21	14	14	13	10
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0



**Table 527 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	58	38	38	36	36	36
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	19	16	16	16	16
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	62	45	45	43	43	43
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	21.6	43.4	45.5	47.0	47.0	47.5
BEV 1	3.4	3.5	3.5	3.5	3.5	3.5
BEV 2	10.5	30.3	30.2	31.7	31.7	32.2
BEV 3	7.8	9.7	11.8	11.8	11.8	11.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	3	2	0	0	0	0
CVT Transmissions	76	55	54	53	53	52

**Table 528 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	18.3	18.3	18.2	18.3	18.3	18.3
BEV 3	57.5	57.5	57.6	57.5	57.5	57.5
BEV 4	24.2	24.2	24.2	24.2	24.2	24.2
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 529 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	32	30	24	24	24
Cylinder Deactivation	0	0	0	0	0	1
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	27	25	21	20	20
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	23	20	20	20	20
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	18.9	18.7	12.3	10.1	3.3	0.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	19.9	21.1	31.4	43.6	51.3	54.3
BEV 1	7.6	7.9	8.8	8.8	8.9	8.9
BEV 2	8.5	9.0	17.4	29.7	33.3	33.7
BEV 3	3.9	4.2	5.2	5.2	9.1	11.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	37	34	31	27	27	26
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	6	5	5	5	5	5
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	18	21	20	13	13	13

**Table 530 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	64	64	64	40	40	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	24.7	24.6	24.6	23.9	24.0	10.5
Strong Hybrid Powertrains Total	4.7	4.7	4.7	4.6	2.9	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.4	31.4	31.3	55.3	57.0	73.4
BEV 1	6.1	6.0	6.0	6.0	6.0	6.1
BEV 2	10.0	9.9	9.9	32.1	33.7	50.1
BEV 3	15.4	15.4	15.4	17.2	17.2	17.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	41	41	27	11	11	12
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	23	23	37	29	29	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 531 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC2LT4**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	11	11
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	33	24	24	21	11	9
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	36	36	32	23	20
Mild Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Strong Hybrid Powertrains Total	31.3	31.5	31.6	13.2	14.1	7.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.8	32.8	32.7	54.4	63.3	72.3
BEV 1	6.3	6.3	6.3	6.3	6.3	6.3
BEV 2	16.8	24.9	24.8	35.8	37.6	37.7
BEV 3	1.6	1.6	1.6	12.3	19.4	28.3
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	21	15	10	10	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	14	20	25	21	15	13
DCT Transmissions	9	1	1	1	1	0
CVT Transmissions	0	0	0	0	0	0

**Table 532 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	20	18	16	15	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	18	16	15	15	7
Mild Hybrid Powertrains	1.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	44.2	48.2	48.5	46.1	45.2	34.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.5	31.5	33.5	38.3	39.5	58.8
BEV 1	4.1	4.1	4.0	4.0	4.1	4.1
BEV 2	15.0	20.0	21.9	25.6	26.3	39.9
BEV 3	7.5	7.5	7.5	8.6	9.1	14.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	24	18	7	7	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	0	9	9	8	0
DCT Transmissions	3	2	2	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 533 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	3	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	38	30	21	21	21	21
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	37	29	20	20	20	19
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	26.2	25.9	25.9	25.9	25.9	24.9
Plug-In Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Battery Electric Vehicles (BEVs)	33.1	41.4	50.4	50.4	50.4	51.8
BEV 1	3.7	3.7	3.7	3.7	3.7	3.7
BEV 2	28.4	36.3	36.3	36.3	36.3	36.3
BEV 3	1.0	1.4	10.4	10.4	10.4	11.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	6	6	6	6	4	3
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	33	25	17	17	17	17
DCT Transmissions	2	2	0	0	0	0
CVT Transmissions	0	0	0	0	2	3

**Table 534 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	8	8	7	7	7	6
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	23	22	18	18
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	22	21	18	16
Mild Hybrid Powertrains	2.8	2.8	2.7	2.8	2.8	2.8
Strong Hybrid Powertrains Total	26.3	26.3	26.4	25.2	5.7	5.8
Plug-In Hybrid Powertrains	3.6	3.6	3.6	3.6	20.6	20.6
Battery Electric Vehicles (BEVs)	33.8	33.9	39.8	42.0	48.4	49.7
BEV 1	2.7	2.7	3.0	3.0	3.2	3.2
BEV 2	28.1	28.1	33.1	33.1	34.2	35.4
BEV 3	3.0	3.1	3.7	5.9	11.0	11.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	14	5	5	0	0	0
9-Speed Automatic	2	0	0	0	0	0
10-Speed Automatic	16	27	22	26	22	21
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	3	3	3	3	3	3



**Table 535 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	6	14	14	14	14	14
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	39	35	35	28	28	20
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	46	44	44	36	36	28
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	5.7	4.0	4.0	4.0	0.8	0.8
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	40.6	46.4	46.5	53.7	56.8	64.7
BEV 1	9.3	9.2	9.2	9.2	9.3	9.3
BEV 2	29.4	29.5	29.5	36.7	36.6	36.5
BEV 3	1.9	7.8	7.7	7.7	10.9	18.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	27	25	25	18	18	18
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	26	24	24	24	24	16

**Table 536 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	56	45	45	45	40	28
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	8	8	8	5	5
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	58	46	46	46	35	30
Mild Hybrid Powertrains	0.8	0.8	0.8	0.8	3.2	3.2
Strong Hybrid Powertrains Total	7.5	0.9	0.9	0.9	0.0	0.0
Plug-In Hybrid Powertrains	0.0	7.9	7.9	7.9	7.9	7.9
Battery Electric Vehicles (BEVs)	26.9	38.2	38.2	38.2	47.2	59.0
BEV 1	4.4	4.3	4.3	4.3	4.4	4.4
BEV 2	21.4	31.5	31.5	31.5	34.2	35.7
BEV 3	1.1	2.4	2.4	2.4	8.7	19.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	35	25	25	25	19	14
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	2	0	0	0	0	0
DCT Transmissions	8	7	7	7	5	5
CVT Transmissions	21	21	21	21	21	14

**Table 537 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	55	55	40	37	36	27
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	16	16	15	15	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	30	30	32	32	28	19
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	2.6	2.6	0.0	0.0	1.0	1.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.5	22.5	44.5	47.3	62.4	71.7
BEV 1	2.8	2.8	4.2	4.2	4.2	4.2
BEV 2	19.1	19.1	34.6	34.6	36.8	38.3
BEV 3	0.6	0.6	5.8	8.5	21.4	29.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	39	39	23	23	14	14
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	6	6	6	6	0	0
CVT Transmissions	30	30	26	23	22	13

**Table 538 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	28	23	16	15
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	10	10	10	10	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	28	28	28	23	16	15
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	30.8	30.5	30.5	24.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.7	31.7	31.7	36.8	53.6	60.2
BEV 1	4.9	4.9	4.9	4.8	4.8	4.8
BEV 2	25.5	25.5	25.5	29.8	33.5	39.6
BEV 3	1.3	1.3	1.3	2.1	15.2	15.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	1	1	1	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	37	37	37	33	16	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 539 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	50.0	50.0	50.0	50.0	50.0	50.0
BEV 2	50.0	50.0	50.0	50.0	50.0	50.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 540 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	0.0	0.0	0.0	0.0	0.0	0.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	100.0	100.0	100.0	100.0	100.0	100.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 541 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	57	57	37	37	37	37
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	19.3	19.3	12.4	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	23.5	23.5	51.0	63.4	63.4	63.4
BEV 1	5.5	5.5	6.3	6.3	6.3	6.3
BEV 2	16.0	16.0	42.3	42.3	42.4	42.4
BEV 3	2.0	2.0	2.4	14.7	14.7	14.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	51	50	35	35	35	35
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	2	2	1	1	1	1
CVT Transmissions	5	5	1	1	1	1

**Table 542 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	43	33	30	11	11	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	4	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	33	30	11	11	8
Mild Hybrid Powertrains	2.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	12.5	16.3	19.3	19.4	15.1	15.1
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	40.7	50.5	50.8	69.5	74.1	76.4
BEV 1	8.1	8.0	8.0	8.0	8.1	8.1
BEV 2	25.2	35.1	35.2	35.2	35.1	35.1
BEV 3	7.0	7.0	7.2	25.9	30.5	32.9
BEV 4	0.4	0.4	0.4	0.4	0.4	0.4
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	42	29	25	9	8	8
DCT Transmissions	5	5	5	2	2	0
CVT Transmissions	0	0	0	0	0	0



**Table 543 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	27	27
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	29.8	29.7	29.7	29.7	60.4	60.9
BEV 1	4.2	4.2	4.2	4.2	4.2	4.2
BEV 2	25.6	25.5	25.5	25.5	33.2	33.8
BEV 3	0.0	0.0	0.0	0.0	22.9	22.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	70	70	70	70	40	39

**Table 544 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	40	44	41	39	27
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	1	1	1	11	11	10
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	13	14	14	13	13
Mild Hybrid Powertrains	0.0	0.0	0.0	1.9	1.9	1.9
Strong Hybrid Powertrains Total	1.1	1.1	1.1	1.1	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	18.5	37.6	37.6	39.9	43.0	55.9
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	12.9	30.1	30.1	32.4	33.5	36.6
BEV 3	0.1	2.0	2.0	2.0	4.0	13.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	26	25	25	25	25	24
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	55	36	36	34	32	20

**Table 545 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	12	12	11	11	11	11
Cylinder Deactivation	4	4	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	11	11	10	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	22	22	13	13	13	13
Mild Hybrid Powertrains	4.5	4.5	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	32.8	26.3	25.6	23.4
Plug-In Hybrid Powertrains	0.0	0.0	3.4	9.5	10.2	11.8
Battery Electric Vehicles (BEVs)	33.3	34.0	41.7	42.1	43.3	46.5
BEV 1	2.8	2.8	3.2	3.3	3.3	3.3
BEV 2	25.3	26.0	33.3	33.7	33.7	33.7
BEV 3	5.1	5.1	5.1	5.1	6.3	9.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	15	14	9	9	9	9
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	20	21	13	13	12	10
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 546 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	58	38	38	36	36	36
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	19	16	13	13	13
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	62	45	45	40	40	40
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	3.2	3.2	3.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	21.6	43.4	45.5	47.0	47.0	47.5
BEV 1	3.4	3.5	3.5	3.5	3.5	3.5
BEV 2	10.5	30.3	30.2	31.7	31.7	32.2
BEV 3	7.8	9.7	11.8	11.8	11.8	11.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	3	2	0	0	0	0
CVT Transmissions	76	55	54	49	49	49

**Table 547 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	18.3	18.3	18.2	18.3	18.3	18.3
BEV 3	57.5	57.5	57.6	57.5	57.5	57.5
BEV 4	24.2	24.2	24.2	24.2	24.2	24.2
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 548 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	30	29	23	23	23
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	27	25	21	20	21
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	21	19	19	19	19
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	18.9	18.7	12.6	10.4	3.7	0.7
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	19.9	22.8	31.5	43.9	51.7	54.9
BEV 1	7.6	7.9	8.3	8.3	8.4	8.4
BEV 2	8.5	10.7	18.5	30.9	34.2	34.2
BEV 3	3.9	4.2	4.7	4.7	9.2	12.3
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	37	29	27	23	23	22
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	6	9	9	9	8	8
DCT Transmissions	1	1	1	1	1	1
CVT Transmissions	18	20	19	13	13	13

**Table 549 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	64	64	64	40	40	27
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	24.7	24.6	24.6	23.9	24.0	10.5
Strong Hybrid Powertrains Total	4.7	4.7	4.7	4.6	2.9	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.4	31.4	31.3	55.3	57.0	73.4
BEV 1	6.1	6.0	6.0	6.0	6.1	6.1
BEV 2	10.0	9.9	9.9	32.1	33.7	50.1
BEV 3	15.4	15.4	15.4	17.2	17.2	17.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	41	41	27	5	5	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	23	23	37	35	35	27
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 550 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC3LT5**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	11	11
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	33	24	24	21	11	9
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	36	36	32	23	20
Mild Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Strong Hybrid Powertrains Total	31.3	31.5	31.6	13.2	14.1	7.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.8	32.8	32.7	54.4	63.3	72.3
BEV 1	6.3	6.3	6.3	6.3	6.3	6.3
BEV 2	16.9	24.9	24.8	41.5	41.6	41.7
BEV 3	1.6	1.6	1.6	6.5	15.4	24.3
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	21	15	10	10	7	7
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	14	20	25	21	15	13
DCT Transmissions	9	1	1	1	1	0
CVT Transmissions	0	0	0	0	0	0



**Table 551 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	29	20	18	16	15	2
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	25	18	16	15	15	2
Mild Hybrid Powertrains	1.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	44.3	47.1	47.4	45.0	44.0	31.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	26.5	32.6	34.6	39.4	40.7	67.2
BEV 1	4.1	4.0	4.0	4.1	4.1	4.1
BEV 2	14.9	21.1	23.0	26.7	27.5	34.8
BEV 3	7.5	7.5	7.5	8.6	9.1	28.3
BEV 4	0.0	0.0	0.0	0.0	0.0	0.1
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	24	18	7	7	7	2
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	3	0	9	8	8	0
DCT Transmissions	3	2	2	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 552 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	3	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	35	18	7	7	7	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	34	17	6	6	6	5
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	20.6	20.4	20.4	20.4	20.4	19.4
Plug-In Hybrid Powertrains	3.5	3.5	3.5	3.5	3.5	3.5
Battery Electric Vehicles (BEVs)	37.8	55.0	66.5	66.5	66.6	67.9
BEV 1	3.7	3.7	3.7	3.7	3.7	3.7
BEV 2	28.4	33.0	33.0	33.0	33.0	34.4
BEV 3	5.7	18.4	29.9	29.9	29.9	29.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	4	4	4	4	4	3
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	33	16	5	5	5	5
DCT Transmissions	2	2	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 553 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (GM) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	8	8	7	7	6	1
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	23	21	8	8
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	27	27	22	21	8	2
Mild Hybrid Powertrains	2.8	2.7	2.7	1.5	1.5	1.5
Strong Hybrid Powertrains Total	26.3	26.4	26.4	25.8	10.6	10.7
Plug-In Hybrid Powertrains	2.1	2.1	2.1	2.1	18.0	18.0
Battery Electric Vehicles (BEVs)	35.3	35.4	41.3	44.1	56.9	62.6
BEV 1	2.7	2.7	3.4	3.4	3.4	3.4
BEV 2	28.1	28.1	33.3	33.4	34.5	36.5
BEV 3	4.5	4.5	4.6	7.3	18.9	22.7
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	14	5	5	0	0	0
9-Speed Automatic	2	0	0	0	0	0
10-Speed Automatic	16	27	22	26	13	7
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	3	3	3	1	2	2

**Table 554 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	6	12	11	12	12	12
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	39	31	28	18	18	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	46	38	35	24	24	14
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	5.7	4.4	4.4	10.7	7.5	6.7
Plug-In Hybrid Powertrains	0.0	0.0	3.3	3.3	3.2	3.2
Battery Electric Vehicles (BEVs)	40.6	51.8	52.6	56.6	59.7	71.3
BEV 1	9.3	9.2	9.2	9.2	9.3	9.3
BEV 2	29.4	29.5	29.5	32.5	32.4	37.1
BEV 3	1.9	13.0	13.9	14.8	18.0	24.9
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	27	25	22	11	11	7
DCT Transmissions	1	0	0	0	0	0
CVT Transmissions	26	19	18	18	18	12

**Table 555 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	56	36	36	36	27	15
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	6	6	6	3	3
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	58	35	35	35	24	18
Mild Hybrid Powertrains	0.8	0.8	0.8	0.8	0.0	0.0
Strong Hybrid Powertrains Total	7.5	1.9	1.9	1.9	1.0	1.0
Plug-In Hybrid Powertrains	0.0	2.3	2.3	2.3	5.5	5.5
Battery Electric Vehicles (BEVs)	26.9	53.8	53.8	53.8	62.9	75.6
BEV 1	4.4	4.3	4.3	4.3	4.4	4.4
BEV 2	21.4	31.5	31.5	31.5	34.2	35.7
BEV 3	1.1	18.0	18.0	18.0	24.3	35.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	35	15	15	15	6	1
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	2	0	0	0	0	0
DCT Transmissions	8	6	6	6	3	3
CVT Transmissions	21	21	21	21	21	13

**Table 556 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	55	55	36	33	31	21
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	16	16	15	15	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	30	30	30	30	28	12
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	5.2
Strong Hybrid Powertrains Total	2.6	2.5	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	22.5	22.5	48.4	51.2	68.8	79.2
BEV 1	2.8	2.8	3.8	3.8	3.8	3.8
BEV 2	19.1	19.2	33.4	35.5	35.6	37.5
BEV 3	0.6	0.6	11.2	11.9	29.4	38.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	39	39	9	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	9	0	0
DCT Transmissions	6	6	6	6	0	0
CVT Transmissions	30	30	36	33	31	21

**Table 557 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	28	28	23	16	15
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	10	10	10	10	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	28	28	28	23	16	15
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	30.8	30.5	30.5	7.6
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.7	31.7	31.7	36.8	53.6	77.0
BEV 1	4.9	4.9	4.9	4.8	4.8	4.9
BEV 2	25.5	25.5	25.5	29.8	33.5	44.1
BEV 3	1.3	1.3	1.3	2.1	15.2	28.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	1	1	1	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	37	37	37	33	16	15
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 558 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	50.0	50.0	50.0	50.0	50.0	50.0
BEV 2	50.0	50.0	50.0	50.0	50.0	50.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0



**Table 559 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	0.0	0.0	0.0	0.0	0.0	0.0
BEV 3	0.0	0.0	0.0	0.0	0.0	0.0
BEV 4	100.0	100.0	100.0	100.0	100.0	100.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 560 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	42	42	38	38	38	38
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	19.3	19.3	13.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	38.9	38.9	48.9	61.8	61.8	61.8
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	31.4	31.4	31.4	31.4	31.4	31.3
BEV 3	2.0	2.0	12.0	24.9	24.9	25.0
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	36	35	33	33	33	33
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	2	2	1	1	1	1
CVT Transmissions	5	5	3	4	4	4

**Table 561 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	43	27	23	3	2	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	4	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	27	23	3	2	0
Mild Hybrid Powertrains	2.7	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	12.5	22.1	20.8	20.7	15.5	15.1
Plug-In Hybrid Powertrains	0.0	1.4	1.4	1.4	1.4	1.4
Battery Electric Vehicles (BEVs)	40.7	49.9	54.5	74.7	80.8	83.6
BEV 1	8.1	8.0	7.9	8.0	8.1	8.1
BEV 2	25.1	30.9	30.9	32.2	33.4	36.1
BEV 3	7.1	10.6	15.2	34.1	39.0	39.0
BEV 4	0.4	0.4	0.4	0.4	0.4	0.4
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	42	22	19	1	0	0
DCT Transmissions	5	5	5	2	2	0
CVT Transmissions	0	0	0	0	0	0

**Table 562 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	11	19	13
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	4	4
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	3.6	3.6
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	16.3	21.3
Battery Electric Vehicles (BEVs)	29.8	29.7	29.7	29.7	52.9	53.4
BEV 1	4.2	4.2	4.2	4.2	4.2	4.2
BEV 2	25.5	25.5	25.5	25.5	44.6	44.5
BEV 3	0.0	0.0	0.0	0.0	4.1	4.6
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	70	70	70	70	31	25

**Table 563 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	30	41	45	35	35	23
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	1	1	1	4	4	3
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	15	15	15	15
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	1.1	7.5	7.4	7.5	6.4	6.5
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	18.5	36.5	36.5	52.9	54.0	66.9
BEV 1	5.5	5.5	5.5	5.5	5.5	5.5
BEV 2	12.9	30.9	30.9	33.2	33.1	36.8
BEV 3	0.1	0.1	0.1	14.2	15.3	24.6
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	26	26	26	19	19	18
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	55	30	30	21	21	9

**Table 564 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	12	12	11	11	11	2
Cylinder Deactivation	4	4	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	10	9	9	8	5
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	21	20	11	11	11	2
Mild Hybrid Powertrains	4.5	4.5	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	30.8	30.8	32.8	12.4	11.7	9.5
Plug-In Hybrid Powertrains	0.0	0.0	0.9	16.0	16.4	26.3
Battery Electric Vehicles (BEVs)	35.1	35.7	46.0	51.3	52.7	57.3
BEV 1	2.8	2.8	3.2	3.3	3.3	3.3
BEV 2	27.1	27.8	30.5	30.9	32.3	33.9
BEV 3	5.1	5.1	12.3	17.2	17.1	20.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	13	12	5	5	5	5
9-Speed Automatic	1	0	0	0	0	0
10-Speed Automatic	20	21	15	15	14	2
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 565 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	58	38	33	32	32	32
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	19	15	7	7	7
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	62	45	40	32	32	32
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	21.6	43.4	51.7	60.5	60.5	61.0
BEV 1	3.4	3.5	3.4	3.5	3.5	3.5
BEV 2	10.5	30.2	30.2	33.5	33.5	33.7
BEV 3	7.8	9.7	18.0	23.5	23.5	23.8
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	3	2	0	0	0	0
CVT Transmissions	76	55	48	39	39	39

**Table 566 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	0.0	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.0	100.0	100.0	100.0	100.0	100.0
BEV 1	0.0	0.0	0.0	0.0	0.0	0.0
BEV 2	18.3	18.2	18.2	18.3	18.3	18.3
BEV 3	57.5	57.5	57.6	57.5	57.5	57.5
BEV 4	24.2	24.2	24.2	24.2	24.2	24.2
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0	0
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0



**Table 567 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	32	28	28	22	18	16
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	27	26	23	17	16
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	19	18	18	9	9
Mild Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Strong Hybrid Powertrains Total	18.9	18.7	12.8	10.6	5.0	3.4
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.7
Battery Electric Vehicles (BEVs)	19.9	24.2	31.9	43.3	58.7	64.3
BEV 1	7.6	7.8	7.9	7.9	7.9	8.0
BEV 2	8.5	12.2	19.8	31.2	32.2	33.8
BEV 3	3.9	4.2	4.3	4.2	18.6	22.5
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.1	0.1	0.1	0.1	0.1	0.1
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	36	14	4	1	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	6	19	27	27	18	14
DCT Transmissions	1	1	1	1	1	0
CVT Transmissions	19	23	23	18	18	17

**Table 568 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	0	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	64	64	64	40	40	30
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0	0
Mild Hybrid Powertrains	24.7	24.6	24.6	23.9	24.0	14.0
Strong Hybrid Powertrains Total	4.7	4.7	4.7	4.6	2.9	2.1
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	31.4	31.3	31.3	55.3	56.9	67.8
BEV 1	6.1	6.0	6.0	6.0	6.1	6.1
BEV 2	10.0	9.9	9.8	32.1	33.7	44.5
BEV 3	15.4	15.4	15.4	17.2	17.2	17.2
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	41	41	27	5	5	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	23	23	37	35	35	30
DCT Transmissions	0	0	0	0	0	0
CVT Transmissions	0	0	0	0	0	0

**Table 569 - Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC6LT8**

<b>Powertrain Technology Penetration Rate (%) by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Non-Hybrid High Compression Engines	11	11	11	4	4	4
Cylinder Deactivation	0	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0	0
Non-Hybrid Turbocharged Engines	33	18	18	14	4	2
Variable Geometry Turbo	0	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0	0
Diesel Engines	0	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0	0
12V Stop-Start (non-hybrid)	43	29	29	18	8	6
Mild Hybrid Powertrains	0.1	0.1	0.1	0.1	0.1	0.1
Strong Hybrid Powertrains Total	31.4	31.5	31.6	13.2	14.1	7.2
Plug-In Hybrid Powertrains	0.0	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	24.7	39.5	39.4	68.8	77.8	86.8
BEV 1	6.3	6.3	6.4	6.3	6.3	6.3
BEV 2	16.8	31.6	31.5	41.0	41.2	41.3
BEV 3	1.6	1.6	1.6	21.4	30.2	39.1
BEV 4	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Cell Vehicles (FCVs)	0.0	0.0	0.0	0.0	0.0	0.0
5-Speed Automatic	0	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0	0
8-Speed Automatic	21	8	3	3	0	0
9-Speed Automatic	0	0	0	0	0	0
10-Speed Automatic	14	20	25	14	7	6
DCT Transmissions	9	1	1	1	1	0
CVT Transmissions	0	0	0	0	0	0

## Mass Reduction Penetration Rate, by Model year

**Table 570 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, No Action Alternative (Baseline)**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	11	10	7	6	4	0
Mass Reduction Level 1 (%)	22	23	27	28	29	33
Mass Reduction Level 2 (%)	9	9	8	8	8	8
Mass Reduction Level 3 (%)	47	47	47	47	47	47
Mass Reduction Level 4 (%)	8	9	9	10	10	10
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,043	4,039	4,033	4,026
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0

**Table 571 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, No Action Alternative (Baseline)**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	5	4	3	2	1	0
Mass Reduction Level 1 (%)	25	26	27	28	28	29
Mass Reduction Level 2 (%)	5	5	5	4	4	4
Mass Reduction Level 3 (%)	47	47	47	48	48	48
Mass Reduction Level 4 (%)	15	16	16	17	17	17
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,043	4,039	4,033	4,026
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0

**Table 572 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, No Action Alternative (Baseline)**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	14	13	9	7	5	0
Mass Reduction Level 1 (%)	21	22	27	28	30	35
Mass Reduction Level 2 (%)	11	10	10	10	10	10
Mass Reduction Level 3 (%)	47	47	47	47	47	47
Mass Reduction Level 4 (%)	5	6	6	6	6	6
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,043	4,039	4,033	4,026
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0

**Table 573 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, No Action Alternative (Baseline)**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	0	0	0	0
Mass Reduction Level 1 (%)	10	10	10	10	10	10
Mass Reduction Level 2 (%)	7	7	7	5	5	5
Mass Reduction Level 3 (%)	59	59	59	60	60	59
Mass Reduction Level 4 (%)	20	20	20	23	23	23
Mass Reduction Level 5 (%)	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,043	4,039	4,033	4,026
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0

**Table 574 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, No Action Alternative (Baseline)**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, No Action Alternative (Baseline)</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	9	7	5	4	2	0
Mass Reduction Level 1 (%)	40	42	44	45	47	49
Mass Reduction Level 2 (%)	3	3	3	3	3	3
Mass Reduction Level 3 (%)	36	36	36	36	36	36
Mass Reduction Level 4 (%)	11	11	11	11	11	11
Mass Reduction Level 5 (%)	1	1	1	1	1	1
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,043	4,039	4,033	4,026
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0



**Table 575 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC1LT3**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	11	11	7	6	4	0
Mass Reduction Level 1 (%)	22	23	27	28	29	33
Mass Reduction Level 2 (%)	9	9	8	8	8	8
Mass Reduction Level 3 (%)	47	47	45	45	44	44
Mass Reduction Level 4 (%)	8	9	12	12	13	13
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,040	4,036	4,029	4,022
Diff. from Baseline - Fleet (pounds)	0	0	2	3	3	4

**Table 576 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC1LT3**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	5	4	3	2	1	0
Mass Reduction Level 1 (%)	25	26	27	28	28	29
Mass Reduction Level 2 (%)	5	5	5	4	4	4
Mass Reduction Level 3 (%)	46	46	44	44	43	43
Mass Reduction Level 4 (%)	16	16	19	20	21	21
Mass Reduction Level 5 (%)	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,040	4,036	4,029	4,022
Diff. from Baseline - Fleet (pounds)	0	0	2	3	3	4

**Table 577 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC1LT3**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	14	13	9	7	5	0
Mass Reduction Level 1 (%)	21	22	27	28	30	35
Mass Reduction Level 2 (%)	11	10	10	10	10	10
Mass Reduction Level 3 (%)	47	47	45	45	44	44
Mass Reduction Level 4 (%)	5	6	8	8	9	9
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,040	4,036	4,029	4,022
Diff. from Baseline - Fleet (pounds)	0	0	2	3	3	4

**Table 578 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC1LT3**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	0	0	0	0
Mass Reduction Level 1 (%)	10	10	10	10	10	10
Mass Reduction Level 2 (%)	7	7	7	5	5	5
Mass Reduction Level 3 (%)	57	57	53	54	52	52
Mass Reduction Level 4 (%)	20	21	25	28	29	29
Mass Reduction Level 5 (%)	4	4	4	4	4	4
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,040	4,036	4,029	4,022
Diff. from Baseline - Fleet (pounds)	0	0	2	3	3	4

**Table 579 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC1LT3**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC1LT3</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	9	7	5	4	2	0
Mass Reduction Level 1 (%)	40	41	43	45	46	48
Mass Reduction Level 2 (%)	3	3	3	3	3	3
Mass Reduction Level 3 (%)	36	36	35	35	35	35
Mass Reduction Level 4 (%)	12	12	12	13	13	13
Mass Reduction Level 5 (%)	1	1	1	1	1	1
Avg Curb Weight - Fleet (pounds)	4,049	4,048	4,040	4,036	4,029	4,022
Diff. from Baseline - Fleet (pounds)	0	0	2	3	3	4

**Table 580 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	11	10	7	6	4	0
Mass Reduction Level 1 (%)	22	21	25	26	27	30
Mass Reduction Level 2 (%)	9	9	8	8	8	8
Mass Reduction Level 3 (%)	46	46	44	44	44	44
Mass Reduction Level 4 (%)	8	11	13	14	15	16
Mass Reduction Level 5 (%)	2	2	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,048	4,043	4,035	4,031	4,023	4,014
Diff. from Baseline - Fleet (pounds)	1	5	7	8	10	12

**Table 581 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	5	4	3	2	1	0
Mass Reduction Level 1 (%)	25	24	25	25	25	24
Mass Reduction Level 2 (%)	5	5	5	4	4	4
Mass Reduction Level 3 (%)	47	47	44	43	43	42
Mass Reduction Level 4 (%)	16	18	20	23	24	27
Mass Reduction Level 5 (%)	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,048	4,043	4,035	4,031	4,023	4,014
Diff. from Baseline - Fleet (pounds)	1	5	7	8	10	12

**Table 582 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	14	13	9	7	5	0
Mass Reduction Level 1 (%)	21	20	25	26	28	33
Mass Reduction Level 2 (%)	11	10	10	10	10	10
Mass Reduction Level 3 (%)	46	46	44	44	44	44
Mass Reduction Level 4 (%)	5	8	10	10	10	10
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,048	4,043	4,035	4,031	4,023	4,014
Diff. from Baseline - Fleet (pounds)	1	5	7	8	10	12



**Table 583 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	0	0	0	0
Mass Reduction Level 1 (%)	10	10	10	10	10	5
Mass Reduction Level 2 (%)	7	7	7	5	5	5
Mass Reduction Level 3 (%)	58	58	54	52	51	49
Mass Reduction Level 4 (%)	20	20	25	29	30	37
Mass Reduction Level 5 (%)	4	4	4	4	4	4
Avg Curb Weight - Fleet (pounds)	4,048	4,043	4,035	4,031	4,023	4,014
Diff. from Baseline - Fleet (pounds)	1	5	7	8	10	12

**Table 584 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC2LT4</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	9	7	5	4	2	0
Mass Reduction Level 1 (%)	40	38	40	40	40	42
Mass Reduction Level 2 (%)	3	3	3	3	3	3
Mass Reduction Level 3 (%)	36	36	34	34	36	35
Mass Reduction Level 4 (%)	12	15	16	18	18	18
Mass Reduction Level 5 (%)	1	1	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,048	4,043	4,035	4,031	4,023	4,014
Diff. from Baseline - Fleet (pounds)	1	5	7	8	10	12

**Table 585 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC3LT5**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	11	10	7	6	5	1
Mass Reduction Level 1 (%)	22	21	25	25	27	30
Mass Reduction Level 2 (%)	9	9	8	8	8	8
Mass Reduction Level 3 (%)	46	46	44	44	43	42
Mass Reduction Level 4 (%)	8	11	13	14	15	17
Mass Reduction Level 5 (%)	2	2	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,047	4,043	4,036	4,031	4,024	4,014
Diff. from Baseline - Fleet (pounds)	2	5	6	7	8	12

**Table 586 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC3LT5**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	5	4	3	2	1	0
Mass Reduction Level 1 (%)	25	24	25	25	26	24
Mass Reduction Level 2 (%)	5	5	5	4	4	4
Mass Reduction Level 3 (%)	46	46	43	42	41	41
Mass Reduction Level 4 (%)	16	18	21	24	25	28
Mass Reduction Level 5 (%)	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,047	4,043	4,036	4,031	4,024	4,014
Diff. from Baseline - Fleet (pounds)	2	5	6	7	8	12

**Table 587 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC3LT5**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	14	13	10	8	6	1
Mass Reduction Level 1 (%)	21	20	24	25	27	32
Mass Reduction Level 2 (%)	11	10	10	10	10	10
Mass Reduction Level 3 (%)	46	46	44	44	44	43
Mass Reduction Level 4 (%)	5	8	10	10	10	12
Mass Reduction Level 5 (%)	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,047	4,043	4,036	4,031	4,024	4,014
Diff. from Baseline - Fleet (pounds)	2	5	6	7	8	12

**Table 588 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC3LT5**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	0	0	0	0
Mass Reduction Level 1 (%)	10	10	10	10	10	5
Mass Reduction Level 2 (%)	7	7	7	5	5	5
Mass Reduction Level 3 (%)	57	57	53	51	50	48
Mass Reduction Level 4 (%)	20	21	25	30	31	38
Mass Reduction Level 5 (%)	4	4	4	4	4	4
Avg Curb Weight - Fleet (pounds)	4,047	4,043	4,036	4,031	4,024	4,014
Diff. from Baseline - Fleet (pounds)	2	5	6	7	8	12

**Table 589 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC3LT5**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC3LT5</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	9	7	5	4	2	0
Mass Reduction Level 1 (%)	40	38	40	40	41	43
Mass Reduction Level 2 (%)	3	3	3	3	3	3
Mass Reduction Level 3 (%)	36	36	34	33	33	33
Mass Reduction Level 4 (%)	12	15	16	19	19	19
Mass Reduction Level 5 (%)	1	1	2	2	2	2
Avg Curb Weight - Fleet (pounds)	4,047	4,043	4,036	4,031	4,024	4,014
Diff. from Baseline - Fleet (pounds)	2	5	6	7	8	12

**Table 590 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC6LT8**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Total Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	11	11	7	6	4	0
Mass Reduction Level 1 (%)	22	21	23	23	24	26
Mass Reduction Level 2 (%)	9	9	8	9	9	8
Mass Reduction Level 3 (%)	46	46	44	43	40	37
Mass Reduction Level 4 (%)	8	11	15	17	20	25
Mass Reduction Level 5 (%)	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,047	4,041	4,027	4,019	4,009	3,992
Diff. from Baseline - Fleet (pounds)	2	7	15	19	24	34



**Table 591 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC6LT8**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Passenger Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	5	4	3	2	1	0
Mass Reduction Level 1 (%)	25	22	23	23	23	21
Mass Reduction Level 2 (%)	5	5	5	4	4	3
Mass Reduction Level 3 (%)	47	46	42	39	35	33
Mass Reduction Level 4 (%)	15	18	23	28	32	38
Mass Reduction Level 5 (%)	4	4	5	5	5	5
Avg Curb Weight - Fleet (pounds)	4,047	4,041	4,027	4,019	4,009	3,992
Diff. from Baseline - Fleet (pounds)	2	7	15	19	24	34

**Table 592 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC6LT8**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Light Truck Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	14	13	9	7	5	0
Mass Reduction Level 1 (%)	21	20	22	22	24	29
Mass Reduction Level 2 (%)	11	10	10	11	11	11
Mass Reduction Level 3 (%)	46	46	45	45	43	39
Mass Reduction Level 4 (%)	5	8	12	12	14	19
Mass Reduction Level 5 (%)	2	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,047	4,041	4,027	4,019	4,009	3,992
Diff. from Baseline - Fleet (pounds)	2	7	15	19	24	34

**Table 593 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC6LT8**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Domestic Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	0	0	0	0
Mass Reduction Level 1 (%)	10	10	10	9	9	4
Mass Reduction Level 2 (%)	7	7	7	5	5	5
Mass Reduction Level 3 (%)	58	58	54	48	44	39
Mass Reduction Level 4 (%)	20	20	25	34	38	47
Mass Reduction Level 5 (%)	4	5	5	5	5	5
Avg Curb Weight - Fleet (pounds)	4,047	4,041	4,027	4,019	4,009	3,992
Diff. from Baseline - Fleet (pounds)	2	7	15	19	24	34

**Table 594 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC6LT8**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Total) Imported Car Fleet, Alternative PC6LT8</b>						
Model Year	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	9	7	5	4	2	0
Mass Reduction Level 1 (%)	40	34	36	36	36	38
Mass Reduction Level 2 (%)	3	3	3	3	3	2
Mass Reduction Level 3 (%)	35	35	30	30	27	27
Mass Reduction Level 4 (%)	10	17	20	23	27	28
Mass Reduction Level 5 (%)	3	4	5	5	5	5
Avg Curb Weight - Fleet (pounds)	4,047	4,041	4,027	4,019	4,009	3,992
Diff. from Baseline - Fleet (pounds)	2	7	15	19	24	34

**Table Error! No text of specified style in document.595 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (BMW) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	43	42	32	31	14	14	5	3	1	1	0
Mass Reduction Level 1 (%)	35	35	41	41	58	58	67	69	71	71	71
Mass Reduction Level 2 (%)	22	23	23	24	24	24	24	24	24	24	24
Mass Reduction Level 3 (%)	0	0	4	4	4	4	4	4	4	4	4
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	1
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,301	4,322	4,323	4,339	4,320	4,325	4,316	4,315	4,312	4,308	4,299
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	-1	-2	-2	-2	4

**Table Error! No text of specified style in document.596 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Ford) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	13	9	9	9	9	9	9	0	0	0	0
Mass Reduction Level 1 (%)	6	6	5	5	5	5	5	14	14	14	14
Mass Reduction Level 2 (%)	7	7	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	64	64	71	71	71	71	71	71	71	71	71
Mass Reduction Level 4 (%)	10	10	10	10	10	10	10	10	10	10	10
Mass Reduction Level 5 (%)	0	5	5	5	5	5	5	5	5	5	5
Avg Curb Weight - Fleet (pounds)	4,396	4,373	4,372	4,375	4,377	4,378	4,379	4,364	4,364	4,363	4,363
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.597 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (GM) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (GM) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	4	4	3	2	1	0	0	0	0	0	0
Mass Reduction Level 1 (%)	36	35	11	6	7	7	7	7	7	3	3
Mass Reduction Level 2 (%)	39	40	41	41	42	42	42	42	42	42	42
Mass Reduction Level 3 (%)	21	21	46	50	50	50	50	34	34	34	34
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	15	15	20	20
Mass Reduction Level 5 (%)	0	0	0	0	0	1	1	1	1	1	1
Avg Curb Weight - Fleet (pounds)	4,310	4,332	4,313	4,321	4,327	4,324	4,327	4,310	4,309	4,295	4,294
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	3	3	21	21	32	32

**Table Error! No text of specified style in document.598 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Honda) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	2	2	2	1	1	0	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 2 (%)	12	12	11	7	7	7	7	7	7	7	7
Mass Reduction Level 3 (%)	86	87	87	91	92	93	93	93	93	93	93
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,559	3,578	3,593	3,602	3,609	3,610	3,613	3,615	3,614	3,611	3,609
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	-1	-1	-1	-1	-1



**Table Error! No text of specified style in document.599 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Hyundai Kia-H) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	1	1	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	6	6	6	6	5	2	0	0	0	0	0
Mass Reduction Level 2 (%)	12	11	11	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	65	66	67	80	80	80	80	80	80	80	80
Mass Reduction Level 4 (%)	16	14	13	13	13	16	18	18	18	18	18
Mass Reduction Level 5 (%)	0	2	2	2	2	2	2	2	2	2	2
Avg Curb Weight - Fleet (pounds)	3,524	3,536	3,548	3,549	3,555	3,551	3,550	3,551	3,550	3,547	3,546
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	-1	-1	-1	-1	-1

**Table Error! No text of specified style in document.600 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Hyundai Kia-K) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 2 (%)	3	3	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	83	84	87	87	88	86	86	86	83	83	83
Mass Reduction Level 4 (%)	14	13	13	13	12	14	14	14	17	17	17
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,485	3,503	3,515	3,528	3,534	3,535	3,537	3,539	3,535	3,532	3,530
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	4	3	2	6	6	6

**Table Error! No text of specified style in document.601 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (JLR) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	1	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	62	62	62	62	62	62	63	63	63	51	51
Mass Reduction Level 2 (%)	18	18	18	18	18	18	18	18	18	18	0
Mass Reduction Level 3 (%)	18	19	19	19	19	19	19	19	19	19	36
Mass Reduction Level 4 (%)	1	1	1	1	1	1	1	1	1	12	13
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,736	4,735	4,737	4,739	4,739	4,740	4,740	4,740	4,740	4,693	4,676
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	46	64

**Table Error! No text of specified style in document.602 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Karma) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	100	100	100	100	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	100	100	100	100	100	100	100
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	5,250	5,250	5,250	5,250	5,064	5,064	5,064	5,064	5,064	5,064	5,064
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.603 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Lucid) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	100	100	100	100	100	100	100	100	100	100	0
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	100
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	5,220	5,220	5,220	5,220	5,220	5,220	5,220	5,220	5,220	5,220	5,019
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.604 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mazda) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	47	48	48	48	49	49	49	0	0	0	0
Mass Reduction Level 1 (%)	15	15	16	16	16	16	16	64	64	64	64
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	34	34	33	33	33	9	9	0	0	0	0
Mass Reduction Level 4 (%)	4	3	3	3	3	3	3	3	3	3	3
Mass Reduction Level 5 (%)	0	0	0	0	0	23	23	33	33	33	33
Avg Curb Weight - Fleet (pounds)	3,651	3,659	3,665	3,671	3,674	3,614	3,615	3,526	3,526	3,524	3,524
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	62	62	84	84	84	84

**Table Error! No text of specified style in document.605 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mercedes-Benz) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	54	54	54	54	44	38	16	10	8	7	7
Mass Reduction Level 1 (%)	0	0	0	0	10	15	37	43	45	46	46
Mass Reduction Level 2 (%)	18	17	17	17	17	17	17	17	17	17	17
Mass Reduction Level 3 (%)	0	0	0	0	0	1	1	1	1	1	1
Mass Reduction Level 4 (%)	28	28	28	29	29	29	29	29	29	29	29
Mass Reduction Level 5 (%)	1	1	1	1	1	1	1	1	1	1	1
Avg Curb Weight - Fleet (pounds)	4,266	4,276	4,284	4,292	4,281	4,273	4,236	4,228	4,223	4,221	4,220
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	-1	-2	-2	-2	-2	-2

**Table Error! No text of specified style in document.606 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Mitsubishi) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	81	81	82	83	83	83	83	83	83	34	22
Mass Reduction Level 1 (%)	0	0	0	0	0	0	0	0	0	49	61
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	19	19	18	17	17	17	17	17	17	17	17
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,295	3,308	3,318	3,327	3,331	3,334	3,336	3,337	3,337	3,270	3,255
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	-1	-1	-1	-1



**Table Error! No text of specified style in document.607 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Nissan) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	17	15	15	15	14	14	14	14	2	2	0
Mass Reduction Level 1 (%)	40	40	39	40	41	41	17	17	25	25	16
Mass Reduction Level 2 (%)	44	43	37	25	22	21	9	5	0	0	0
Mass Reduction Level 3 (%)	0	0	5	5	9	9	8	8	3	3	0
Mass Reduction Level 4 (%)	0	0	0	12	12	12	47	50	64	64	79
Mass Reduction Level 5 (%)	0	2	2	2	2	4	5	5	5	5	5
Avg Curb Weight - Fleet (pounds)	3,740	3,744	3,759	3,751	3,757	3,756	3,665	3,659	3,611	3,607	3,572
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	62	62	77	77	106

**Table Error! No text of specified style in document.608 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Stellantis) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	22	20	20	14	13	13	13	0	0	0	0
Mass Reduction Level 1 (%)	43	43	39	42	42	42	42	56	55	55	55
Mass Reduction Level 2 (%)	1	1	1	1	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	21	21	25	28	28	28	27	27	28	28	28
Mass Reduction Level 4 (%)	13	13	14	14	14	14	14	14	14	14	14
Mass Reduction Level 5 (%)	0	2	2	2	3	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,539	4,532	4,532	4,520	4,520	4,522	4,523	4,501	4,499	4,498	4,497
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	-1	-1	0

**Table Error! No text of specified style in document.609 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Subaru) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	99	99	99	99	99	99	99	99	99	99	99
Mass Reduction Level 2 (%)	1	1	1	1	1	1	1	1	1	1	1
Mass Reduction Level 3 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,634	3,639	3,643	3,646	3,647	3,648	3,649	3,649	3,649	3,648	3,648
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.610 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Tesla) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 4 (%)	85	85	85	85	85	85	85	85	85	85	85
Mass Reduction Level 5 (%)	15	15	15	15	15	15	15	15	15	15	15
Avg Curb Weight - Fleet (pounds)	4,300	4,300	4,300	4,301	4,301	4,301	4,301	4,301	4,301	4,301	4,301
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.611 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Toyota) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	25	25	26	26	26	27	27	27	27	20	0
Mass Reduction Level 1 (%)	20	20	19	19	18	18	18	18	18	25	45
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	55	55	55	55	55	55	55	55	55	55	55
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,924	3,945	3,960	3,975	3,982	3,986	3,989	3,991	3,990	3,974	3,941
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	-1	-1	-1	-1	-1

**Table Error! No text of specified style in document.612 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (Volvo) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	28	28	27	27	8	8	8	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	19	19	19	27	27	27	27
Mass Reduction Level 2 (%)	72	72	73	73	73	73	73	73	73	73	73
Mass Reduction Level 3 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0	0	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,378	4,379	4,379	4,380	4,354	4,354	4,354	4,341	4,340	4,340	4,340
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	0	0	0	0

**Table Error! No text of specified style in document.613 - Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC2LT4**

<b>Mass Reduction Penetration Rate and Curb Weights by Model Year for Manufacturer (VWA) Total Fleet, Alternative PC2LT4</b>											
Model Year	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032
Mass Reduction Level 0 (%)	59	60	42	27	23	21	19	14	9	2	0
Mass Reduction Level 1 (%)	20	19	36	51	54	55	56	62	67	73	75
Mass Reduction Level 2 (%)	0	0	0	0	0	0	0	0	0	0	0
Mass Reduction Level 3 (%)	20	17	18	18	19	19	19	19	19	19	19
Mass Reduction Level 4 (%)	0	0	0	0	0	2	2	2	2	2	2
Mass Reduction Level 5 (%)	0	3	3	3	3	3	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,024	4,031	4,017	4,005	4,002	3,998	3,998	3,990	3,981	3,966	3,962
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0	0	0	-1	-1	-1	-1

## Powertrain Technology Penetration Rate by Alternative

Table 614 - Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Total Fleet by Alternative

Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Total Fleet by Alternative					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	16	16	16	15	10
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	18	16	15	14	7
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	21	20	19	9
Mild Hybrid	0.4	0.6	0.6	0.8	0.6
Strong Hybrid	10.3	9.8	9.8	8.5	7.9
Plug-In Hybrid	2.7	3.2	3.1	4.6	6.8
Battery Electric Vehicles (BEVs)	52.80	54.42	55.58	57.35	68.10
BEV 1	5.43	5.39	5.36	5.20	5.15
BEV 2	34.96	35.05	35.45	35.34	35.12
BEV 3	11.65	13.21	14.01	16.03	27.06
BEV 4	0.77	0.77	0.77	0.77	0.77
Fuel Cell Vehicles (FCVs)	0.03	0.03	0.03	0.03	0.03
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	14	11	10	7	2
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	9	10	11	12	7
DCT Transmissions	0	0	0	0	0
CVT Transmissions	10	10	10	10	9



**Table 615 - Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	20	19	19	19	13
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	8	6	7	7	3
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	12	13	12	6
Mild Hybrid	0.9	1.6	1.6	2.4	0.9
Strong Hybrid	2.9	2.9	3.2	2.8	3.6
Plug-In Hybrid	0.5	0.6	0.4	1.1	1.5
Battery Electric Vehicles (BEVs)	67.21	69.17	68.98	69.55	78.08
BEV 1	10.35	10.29	10.27	10.31	10.24
BEV 2	37.43	37.44	36.60	33.81	38.14
BEV 3	17.03	19.04	19.72	23.04	27.29
BEV 4	2.39	2.40	2.40	2.40	2.40
Fuel Cell Vehicles (FCVs)	0.08	0.08	0.08	0.08	0.08
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	8	6	6	4	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	1	1	1	1	2
DCT Transmissions	0	0	0	0	0
CVT Transmissions	19	19	19	20	14

**Table 616 - Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	14	14	14	14	8
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	22	21	19	17	9
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	26	24	22	10
Mild Hybrid	0.2	0.2	0.2	0.0	0.4
Strong Hybrid	13.8	13.1	12.9	11.1	10.0
Plug-In Hybrid	3.6	4.3	4.4	6.1	9.3
Battery Electric Vehicles (BEVs)	46.00	47.49	49.29	51.61	63.38
BEV 1	3.10	3.09	3.05	2.81	2.74
BEV 2	33.79	33.93	34.92	36.07	33.69
BEV 3	9.10	10.47	11.32	12.74	26.95
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	17	14	12	9	2
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	13	15	15	16	9
DCT Transmissions	0	0	0	0	0
CVT Transmissions	6	6	6	5	6

**Table 617 - Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	16	15	16	17	13
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	9	4	6	6	2
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	10	12	12	7
Mild Hybrid	0.3	0.3	0.3	1.1	0.3
Strong Hybrid	2.7	2.5	2.5	2.5	2.2
Plug-In Hybrid	1.0	1.1	0.9	1.1	0.8
Battery Electric Vehicles (BEVs)	72.02	76.84	74.38	73.77	81.60
BEV 1	7.45	7.42	7.70	8.10	8.27
BEV 2	38.24	39.55	38.91	33.19	33.51
BEV 3	21.52	25.07	22.96	27.68	35.02
BEV 4	4.80	4.80	4.80	4.80	4.80
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	4	2	4	1	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	2	2	2	2	3
DCT Transmissions	0	0	0	0	0
CVT Transmissions	17	15	16	18	12

**Table 618 - Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	24	24	21	20	14
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	7	8	8	7	4
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	13	12	6
Mild Hybrid	1.5	2.8	2.8	3.8	1.4
Strong Hybrid	3.0	3.3	4.0	3.1	5.1
Plug-In Hybrid	0.0	0.0	0.0	1.1	2.2
Battery Electric Vehicles (BEVs)	62.51	61.70	63.71	65.44	74.64
BEV 1	13.17	13.09	12.77	12.47	12.17
BEV 2	36.64	35.38	34.34	34.40	42.66
BEV 3	12.65	13.16	16.55	18.50	19.75
BEV 4	0.05	0.06	0.06	0.06	0.05
Fuel Cell Vehicles (FCVs)	0.16	0.16	0.16	0.16	0.16
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	12	9	8	7	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	1	1	0	1	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	20	23	22	21	16

**Table 619 - Powertrain Technology Penetration Rate (%) for Manufacturer (BMW), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (BMW), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	7	7	7	7	2
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	7	7	7	7	2
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	34.7	33.3	32.0	34.4	31.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	58.47	59.87	61.24	58.83	67.21
BEV 1	4.10	4.09	4.09	4.09	4.10
BEV 2	35.21	34.22	34.21	39.88	34.76
BEV 3	19.08	21.48	22.85	14.78	28.28
BEV 4	0.08	0.08	0.08	0.08	0.06
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	7	7	7	7	2
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 620 - Powertrain Technology Penetration Rate (%) for Manufacturer (Ford), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Ford), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	3	3	3	3	3
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	28	26	22	21	7
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	26	24	21	19	5
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	28.7	28.4	28.7	24.9	19.4
Plug-In Hybrid	0.0	0.0	0.0	0.1	3.5
Battery Electric Vehicles (BEVs)	41.05	43.25	46.55	51.80	67.95
BEV 1	4.25	4.25	4.25	3.67	3.68
BEV 2	32.89	35.09	37.10	36.32	34.36
BEV 3	3.91	3.91	5.20	11.81	29.91
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	11	8	6	3	3
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	19	20	18	17	5
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	3	0

**Table 621 - Powertrain Technology Penetration Rate (%) for Manufacturer (GM), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (GM), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	5	5	5	6	1
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	17	18	18	18	8
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	15	15	15	16	2
Mild Hybrid	1.5	2.8	2.8	2.8	1.5
Strong Hybrid	16.9	7.5	7.4	5.8	10.7
Plug-In Hybrid	18.9	22.1	22.0	20.6	18.0
Battery Electric Vehicles (BEVs)	42.64	47.41	47.15	49.69	62.60
BEV 1	3.44	3.43	3.19	3.19	3.44
BEV 2	36.27	36.73	36.72	35.40	36.48
BEV 3	2.93	7.24	7.24	11.10	22.69
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	14	12	8	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	6	8	12	21	7
DCT Transmissions	0	0	0	0	0
CVT Transmissions	2	3	3	3	2

**Table 622 - Powertrain Technology Penetration Rate (%) for Manufacturer (Honda), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Honda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	12	12	12	14	12
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	31	27	27	20	7
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	40	36	36	28	14
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.9	0.8	0.0	0.8	6.7
Plug-In Hybrid	0.0	0.0	0.0	0.0	3.2
Battery Electric Vehicles (BEVs)	56.01	60.45	61.33	64.71	71.28
BEV 1	9.16	9.28	9.28	9.27	9.29
BEV 2	33.90	34.07	37.56	36.51	37.07
BEV 3	12.95	17.11	14.49	18.92	24.92
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	25	25	25	18	7
DCT Transmissions	0	0	0	0	0
CVT Transmissions	17	13	13	16	12



**Table 623 - Powertrain Technology Penetration Rate (%) for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	35	34	28	28	15
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	7	6	6	5	3
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	39	38	33	30	18
Mild Hybrid	0.0	0.0	0.7	3.2	0.0
Strong Hybrid	0.0	0.0	3.0	0.0	1.0
Plug-In Hybrid	0.0	0.0	0.0	7.9	5.5
Battery Electric Vehicles (BEVs)	57.03	59.58	62.68	59.02	75.63
BEV 1	4.18	4.37	4.37	4.37	4.38
BEV 2	38.41	38.31	35.87	35.66	35.73
BEV 3	14.43	16.89	22.44	18.99	35.52
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.14	0.14	0.14	0.14	0.14
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	17	17	14	14	1
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	2	1	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	18	17	14	14	13

**Table 624 - Powertrain Technology Penetration Rate (%) for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	35	32	31	27	21
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	3	2	0	0	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	21	20	19	19	12
Mild Hybrid	0.0	1.0	0.0	0.0	5.2
Strong Hybrid	0.0	0.9	0.0	1.0	0.0
Plug-In Hybrid	0.0	0.0	1.4	0.0	0.0
Battery Electric Vehicles (BEVs)	62.29	64.46	67.43	71.65	79.25
BEV 1	3.70	4.20	4.20	4.20	3.80
BEV 2	37.55	37.61	38.09	38.30	37.49
BEV 3	21.05	22.64	25.14	29.15	37.96
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	25	16	19	14	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	11	16	12	13	21

**Table 625 - Powertrain Technology Penetration Rate (%) for Manufacturer (JLR), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (JLR), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	18	15	15	15	15
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	18	15	15	15	15
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	30.6	29.4	24.0	24.4	7.6
Plug-In Hybrid	0.0	10.6	10.6	0.0	0.0
Battery Electric Vehicles (BEVs)	51.10	44.56	49.97	60.22	76.97
BEV 1	4.85	4.85	4.85	4.85	4.85
BEV 2	44.12	33.63	33.64	39.62	44.14
BEV 3	2.13	6.07	11.49	15.75	27.98
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	1	1	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	18	15	15	15	15
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 626 - Powertrain Technology Penetration Rate (%) for Manufacturer (Karma), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Karma), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	50.00	50.00	50.00	50.00	50.00
BEV 2	50.00	50.00	50.00	50.00	50.00
BEV 3	0.00	0.00	0.00	0.00	0.00
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 627 - Powertrain Technology Penetration Rate (%) for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	0.00	0.00	0.00	0.00	0.00
BEV 2	0.00	0.00	0.00	0.00	0.00
BEV 3	0.00	0.00	0.00	0.00	0.00
BEV 4	100.00	100.00	100.00	100.00	100.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 628 - Powertrain Technology Penetration Rate (%) for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	37	37	37	37	38
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	63.30	63.41	63.40	63.40	61.84
BEV 1	6.28	6.33	6.33	6.33	5.55
BEV 2	42.30	42.37	42.36	42.36	31.34
BEV 3	14.71	14.71	14.71	14.71	24.96
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	36	35	35	35	33
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	1	1	1	4

**Table 629 - Powertrain Technology Penetration Rate (%) for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	8	8	8	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	10	8	8	8	0
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	17.5	18.5	15.5	15.1	15.1
Plug-In Hybrid	0.0	0.0	0.0	0.0	1.4
Battery Electric Vehicles (BEVs)	72.44	73.01	76.78	76.40	83.55
BEV 1	8.25	8.08	8.08	8.08	8.10
BEV 2	36.62	36.78	35.28	35.06	36.06
BEV 3	27.26	27.75	33.01	32.86	38.98
BEV 4	0.31	0.41	0.41	0.40	0.41
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	9	8	8	8	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 630 - Powertrain Technology Penetration Rate (%) for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	39	35	50	27	13
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	12	12	12	12	12
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	4
Mild Hybrid	0.0	0.0	0.0	0.0	3.6
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	21.3
Battery Electric Vehicles (BEVs)	48.77	52.63	38.25	60.86	53.42
BEV 1	4.22	4.23	4.22	4.22	4.24
BEV 2	44.55	48.41	34.03	33.78	44.54
BEV 3	0.00	0.00	0.00	22.86	4.63
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	51	47	62	39	25



**Table 631 - Powertrain Technology Penetration Rate (%) for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	29	29	29	27	23
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	10	10	10	10	3
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	13	13	13	13	15
Mild Hybrid	0.0	0.0	0.0	1.9	0.0
Strong Hybrid	0.6	0.0	0.0	0.0	6.5
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	52.01	52.62	52.62	55.87	66.92
BEV 1	5.48	5.48	5.48	5.48	5.48
BEV 2	36.66	36.14	36.23	36.62	36.84
BEV 3	9.87	11.00	10.91	13.76	24.60
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	23	23	23	24	18
DCT Transmissions	0	0	0	0	0
CVT Transmissions	24	24	24	20	9

**Table 632 - Powertrain Technology Penetration Rate (%) for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	12	11	12	11	2
Cylinder Deactivation	0	1	1	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	12	9	7	5
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	23	18	16	13	2
Mild Hybrid	1.0	0.9	0.9	0.0	0.0
Strong Hybrid	23.8	31.0	31.0	23.4	9.5
Plug-In Hybrid	1.1	1.4	1.0	11.8	26.3
Battery Electric Vehicles (BEVs)	43.44	43.36	46.22	46.47	57.29
BEV 1	3.32	3.32	3.28	3.28	3.28
BEV 2	34.60	34.52	35.18	33.73	33.86
BEV 3	5.51	5.52	7.77	9.46	20.15
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	21	15	12	9	5
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	10	10	10	10	2
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 633 - Powertrain Technology Penetration Rate (%) for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	37	36	36	36	32
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	17	16	16	13	7
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	44	43	43	40	32
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	3.2	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	46.49	47.55	47.55	47.55	61.04
BEV 1	3.50	3.52	3.52	3.52	3.53
BEV 2	31.49	32.25	32.24	32.24	33.72
BEV 3	11.49	11.79	11.79	11.78	23.79
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	53	52	53	49	39

**Table 634 - Powertrain Technology Penetration Rate (%) for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	0	0	0	0	0
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	0.00	0.00	0.00	0.00	0.00
BEV 2	18.28	18.27	18.27	18.27	18.28
BEV 3	57.48	57.49	57.49	57.49	57.48
BEV 4	24.24	24.24	24.24	24.24	24.24
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	0	0	0	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	0	0	0	0
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 635 - Powertrain Technology Penetration Rate (%) for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	24	24	24	23	16
Cylinder Deactivation	1	1	1	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	20	20	20	21	16
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	20	20	20	19	9
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.4	0.4	0.4	0.7	3.4
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.7
Battery Electric Vehicles (BEVs)	55.17	54.27	54.27	54.90	64.27
BEV 1	9.33	8.89	8.88	8.38	7.95
BEV 2	33.90	33.73	33.73	34.19	33.84
BEV 3	11.93	11.65	11.65	12.33	22.47
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.11	0.11	0.11	0.11	0.11
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	28	26	26	22	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	5	5	5	8	14
DCT Transmissions	0	0	0	0	0
CVT Transmissions	11	13	13	13	17

**Table 636 - Powertrain Technology Penetration Rate (%) for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	0	0	0	0	0
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	27	27	27	27	30
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	0	0	0	0	0
Mild Hybrid	10.5	10.5	10.5	10.5	14.0
Strong Hybrid	0.0	0.0	0.0	0.0	2.1
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	73.34	73.36	73.37	73.37	67.76
BEV 1	6.06	6.06	6.06	6.06	6.06
BEV 2	50.13	50.12	50.12	50.13	44.54
BEV 3	17.15	17.18	17.19	17.19	17.16
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	27	12	12	0	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	0	15	15	27	30
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

**Table 637 - Powertrain Technology Penetration Rate (%) for Manufacturer (VWA), MY 2032 Total Fleet by Alternative**

<b>Powertrain Technology Penetration Rate (%) for Manufacturer (VWA), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Non-Hybrid High Compression Engines	11	11	11	11	4
Cylinder Deactivation	0	0	0	0	0
Dynamic Cylinder Deactivation	0	0	0	0	0
Non-Hybrid Turbocharged Engines	13	10	9	9	2
Variable Geometry Turbo	0	0	0	0	0
Electric Variable Geometry Turbo	0	0	0	0	0
Diesel Engines	0	0	0	0	0
Compressed Natural Gas	0	0	0	0	0
12V Stop-Start (non-hybrid)	24	22	20	20	6
Mild Hybrid	0.1	0.1	0.1	0.1	0.1
Strong Hybrid	7.2	7.2	7.2	7.2	7.2
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	69.05	71.12	72.31	72.31	86.76
BEV 1	6.33	6.33	6.33	6.33	6.33
BEV 2	41.69	37.67	37.67	41.66	41.31
BEV 3	21.01	27.10	28.30	24.31	39.10
BEV 4	0.01	0.01	0.01	0.01	0.02
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00
5-Speed Automatic	0	0	0	0	0
6-Speed Automatic	0	0	0	0	0
7-Speed Automatic	0	0	0	0	0
8-Speed Automatic	23	7	7	7	0
9-Speed Automatic	0	0	0	0	0
10-Speed Automatic	1	15	13	13	6
DCT Transmissions	0	0	0	0	0
CVT Transmissions	0	0	0	0	0

## Mass Reduction Penetration Rate, by Alternative

**Table 638 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	1	0
Mass Reduction Level 1 (%)	33	33	30	30	26
Mass Reduction Level 2 (%)	8	8	8	8	8
Mass Reduction Level 3 (%)	47	44	44	42	37
Mass Reduction Level 4 (%)	10	13	16	17	25
Mass Reduction Level 5 (%)	2	2	3	3	3
Avg Curb Weight - Fleet (pounds)	4,026	4,022	4,014	4,014	3,992
Diff. from Baseline - Fleet (pounds)	0	4	12	12	34
Avg Curb Weight - Passenger Car (pounds)	3,425	3,418	3,403	3,403	3,381
Diff. from Baseline - Passenger Car (pounds)	0	7	22	22	44
Avg Curb Weight - Light Truck (pounds)	4,310	4,307	4,301	4,301	4,281
Diff. from Baseline - Light Trucks (pounds)	0	3	9	9	29



**Table 639 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	29	29	24	24	21
Mass Reduction Level 2 (%)	4	4	4	4	3
Mass Reduction Level 3 (%)	48	43	42	41	33
Mass Reduction Level 4 (%)	17	21	27	28	38
Mass Reduction Level 5 (%)	2	3	3	3	5
Avg Curb Weight - Fleet (pounds)	4,026	4,022	4,014	4,014	3,992
Diff. from Baseline - Fleet (pounds)	0	4	12	12	34
Avg Curb Weight - Passenger Car (pounds)	3,425	3,418	3,403	3,403	3,381
Diff. from Baseline - Passenger Car (pounds)	0	7	22	22	44
Avg Curb Weight - Light Truck (pounds)	4,310	4,307	4,301	4,301	4,281
Diff. from Baseline - Light Trucks (pounds)	0	3	9	9	29

**Table 640 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	1	0
Mass Reduction Level 1 (%)	35	35	33	32	29
Mass Reduction Level 2 (%)	10	10	10	10	11
Mass Reduction Level 3 (%)	47	44	44	43	39
Mass Reduction Level 4 (%)	6	9	10	12	19
Mass Reduction Level 5 (%)	2	2	2	2	3
Avg Curb Weight - Fleet (pounds)	4,026	4,022	4,014	4,014	3,992
Diff. from Baseline - Fleet (pounds)	0	4	12	12	34
Avg Curb Weight - Passenger Car (pounds)	3,425	3,418	3,403	3,403	3,381
Diff. from Baseline - Passenger Car (pounds)	0	7	22	22	44
Avg Curb Weight - Light Truck (pounds)	4,310	4,307	4,301	4,301	4,281
Diff. from Baseline - Light Trucks (pounds)	0	3	9	9	29

**Table 641 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	10	10	5	5	4
Mass Reduction Level 2 (%)	5	5	5	5	5
Mass Reduction Level 3 (%)	59	52	49	48	39
Mass Reduction Level 4 (%)	23	29	37	38	47
Mass Reduction Level 5 (%)	3	4	4	4	5
Avg Curb Weight - Fleet (pounds)	4,026	4,022	4,014	4,014	3,992
Diff. from Baseline - Fleet (pounds)	0	4	12	12	34
Avg Curb Weight - Passenger Car (pounds)	3,425	3,418	3,403	3,403	3,381
Diff. from Baseline - Passenger Car (pounds)	0	7	22	22	44
Avg Curb Weight - Light Truck (pounds)	4,310	4,307	4,301	4,301	4,281
Diff. from Baseline - Light Trucks (pounds)	0	3	9	9	29

**Table 642 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	49	48	42	43	38
Mass Reduction Level 2 (%)	3	3	3	3	2
Mass Reduction Level 3 (%)	36	35	35	33	27
Mass Reduction Level 4 (%)	11	13	18	19	28
Mass Reduction Level 5 (%)	1	1	2	2	5
Avg Curb Weight - Fleet (pounds)	4,026	4,022	4,014	4,014	3,992
Diff. from Baseline - Fleet (pounds)	0	4	12	12	34
Avg Curb Weight - Passenger Car (pounds)	3,425	3,418	3,403	3,403	3,381
Diff. from Baseline - Passenger Car (pounds)	0	7	22	22	44
Avg Curb Weight - Light Truck (pounds)	4,310	4,307	4,301	4,301	4,281
Diff. from Baseline - Light Trucks (pounds)	0	3	9	9	29

**Table 643 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (BMW), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (BMW), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	72	71	71	71	71
Mass Reduction Level 2 (%)	24	24	24	25	0
Mass Reduction Level 3 (%)	4	4	4	4	4
Mass Reduction Level 4 (%)	0	1	1	0	25
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,303	4,298	4,299	4,303	4,241
Diff. from Baseline - Fleet (pounds)	0	5	4	0	62
Avg Curb Weight - Passenger Car (pounds)	3,759	3,759	3,759	3,759	3,732
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	27
Avg Curb Weight - Light Truck (pounds)	4,800	4,789	4,789	4,797	4,706
Diff. from Baseline - Light Trucks (pounds)	0	11	11	3	94

**Table 644 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Ford), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Ford), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	14	14	14	14	5
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	71	71	71	64	71
Mass Reduction Level 4 (%)	10	10	10	17	19
Mass Reduction Level 5 (%)	5	5	5	5	5
Avg Curb Weight - Fleet (pounds)	4,362	4,363	4,363	4,351	4,333
Diff. from Baseline - Fleet (pounds)	0	0	0	11	30
Avg Curb Weight - Passenger Car (pounds)	3,792	3,792	3,792	3,785	3,754
Diff. from Baseline - Passenger Car (pounds)	0	0	0	7	38
Avg Curb Weight - Light Truck (pounds)	4,420	4,420	4,420	4,408	4,392
Diff. from Baseline - Light Trucks (pounds)	0	0	0	12	29

**Table 645 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (GM), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (GM), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	7	7	3	7	7
Mass Reduction Level 2 (%)	42	42	42	42	42
Mass Reduction Level 3 (%)	51	30	34	29	29
Mass Reduction Level 4 (%)	0	20	20	21	20
Mass Reduction Level 5 (%)	0	1	1	1	2
Avg Curb Weight - Fleet (pounds)	4,326	4,298	4,294	4,298	4,296
Diff. from Baseline - Fleet (pounds)	0	28	32	28	30
Avg Curb Weight - Passenger Car (pounds)	3,239	3,179	3,167	3,176	3,172
Diff. from Baseline - Passenger Car (pounds)	0	61	72	64	67
Avg Curb Weight - Light Truck (pounds)	4,602	4,581	4,579	4,581	4,581
Diff. from Baseline - Light Trucks (pounds)	0	20	23	20	20

**Table 646 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Honda), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Honda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0
Mass Reduction Level 2 (%)	7	7	7	7	7
Mass Reduction Level 3 (%)	93	92	93	92	64
Mass Reduction Level 4 (%)	0	1	0	1	29
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,608	3,608	3,609	3,608	3,569
Diff. from Baseline - Fleet (pounds)	0	1	-1	0	40
Avg Curb Weight - Passenger Car (pounds)	3,157	3,154	3,157	3,154	3,139
Diff. from Baseline - Passenger Car (pounds)	0	3	0	3	18
Avg Curb Weight - Light Truck (pounds)	4,017	4,017	4,017	4,017	3,957
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	60



**Table 647 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	80	80	80	79	75
Mass Reduction Level 4 (%)	18	18	18	19	13
Mass Reduction Level 5 (%)	2	2	2	2	12
Avg Curb Weight - Fleet (pounds)	3,545	3,546	3,546	3,545	3,522
Diff. from Baseline - Fleet (pounds)	0	-1	-1	0	23
Avg Curb Weight - Passenger Car (pounds)	3,222	3,222	3,222	3,220	3,196
Diff. from Baseline - Passenger Car (pounds)	0	0	0	2	26
Avg Curb Weight - Light Truck (pounds)	3,937	3,937	3,937	3,937	3,918
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	19

**Table 648 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	88	83	83	83	33
Mass Reduction Level 4 (%)	12	17	17	17	65
Mass Reduction Level 5 (%)	0	0	0	0	2
Avg Curb Weight - Fleet (pounds)	3,536	3,530	3,530	3,530	3,453
Diff. from Baseline - Fleet (pounds)	0	6	6	6	83
Avg Curb Weight - Passenger Car (pounds)	3,140	3,126	3,126	3,126	3,065
Diff. from Baseline - Passenger Car (pounds)	0	14	14	14	75
Avg Curb Weight - Light Truck (pounds)	3,958	3,958	3,958	3,958	3,867
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	92

**Table 649 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (JLR), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (JLR), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	62	62	51	51	24
Mass Reduction Level 2 (%)	18	18	0	18	0
Mass Reduction Level 3 (%)	19	18	36	18	18
Mass Reduction Level 4 (%)	1	2	13	13	58
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,740	4,738	4,676	4,692	4,541
Diff. from Baseline - Fleet (pounds)	0	1	64	48	198
Avg Curb Weight - Passenger Car (pounds)	3,655	3,589	3,589	3,589	3,589
Diff. from Baseline - Passenger Car (pounds)	0	66	66	66	66
Avg Curb Weight - Light Truck (pounds)	4,763	4,763	4,699	4,715	4,562
Diff. from Baseline - Light Trucks (pounds)	0	0	64	48	201

**Table 650 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Karma), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Karma), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	100	100	100	100	100
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	5,064	5,064	5,064	5,064	5,064
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0
Avg Curb Weight - Passenger Car (pounds)	5,064	5,064	5,064	5,064	5,064
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	0	0	0	0	0
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 651 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	0	0	0	0	0
Mass Reduction Level 4 (%)	100	100	100	100	100
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	5,019	5,019	5,019	5,019	5,019
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0
Avg Curb Weight - Passenger Car (pounds)	5,019	5,019	5,019	5,019	5,019
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	0	0	0	0	0
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 652 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	64	64	64	64	64
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	33	33	0	0	0
Mass Reduction Level 4 (%)	3	3	3	3	3
Mass Reduction Level 5 (%)	0	0	33	33	33
Avg Curb Weight - Fleet (pounds)	3,608	3,608	3,524	3,524	3,523
Diff. from Baseline - Fleet (pounds)	0	0	84	84	84
Avg Curb Weight - Passenger Car (pounds)	3,007	3,007	2,823	2,823	2,823
Diff. from Baseline - Passenger Car (pounds)	0	0	184	184	184
Avg Curb Weight - Light Truck (pounds)	3,692	3,692	3,622	3,622	3,622
Diff. from Baseline - Light Trucks (pounds)	0	0	70	70	70

**Table 653 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	7	7	7	7	7
Mass Reduction Level 1 (%)	46	46	46	44	45
Mass Reduction Level 2 (%)	17	17	17	18	17
Mass Reduction Level 3 (%)	0	0	1	0	0
Mass Reduction Level 4 (%)	29	29	29	29	30
Mass Reduction Level 5 (%)	1	1	1	1	1
Avg Curb Weight - Fleet (pounds)	4,218	4,221	4,220	4,217	4,216
Diff. from Baseline - Fleet (pounds)	0	-3	-2	1	2
Avg Curb Weight - Passenger Car (pounds)	3,945	3,945	3,945	3,942	3,942
Diff. from Baseline - Passenger Car (pounds)	0	0	0	4	4
Avg Curb Weight - Light Truck (pounds)	4,428	4,432	4,430	4,428	4,428
Diff. from Baseline - Light Trucks (pounds)	0	-4	-2	0	0

**Table 654 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	22	22	22	22	22
Mass Reduction Level 1 (%)	61	61	61	61	61
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	17	17	17	17	17
Mass Reduction Level 4 (%)	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,254	3,255	3,255	3,255	3,254
Diff. from Baseline - Fleet (pounds)	0	-1	-1	-1	0
Avg Curb Weight - Passenger Car (pounds)	2,975	2,975	2,975	2,975	2,975
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	3,530	3,530	3,530	3,530	3,530
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0



**Table 655 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	55	55	16	16	16
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	9	9	0	0	0
Mass Reduction Level 4 (%)	32	32	79	79	79
Mass Reduction Level 5 (%)	5	5	5	5	5
Avg Curb Weight - Fleet (pounds)	3,678	3,679	3,572	3,572	3,570
Diff. from Baseline - Fleet (pounds)	0	-1	106	106	108
Avg Curb Weight - Passenger Car (pounds)	3,208	3,208	3,081	3,081	3,081
Diff. from Baseline - Passenger Car (pounds)	0	0	127	127	127
Avg Curb Weight - Light Truck (pounds)	4,191	4,191	4,105	4,105	4,105
Diff. from Baseline - Light Trucks (pounds)	0	0	86	86	86

**Table 656 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	5	0
Mass Reduction Level 1 (%)	55	55	55	49	47
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	28	28	28	28	21
Mass Reduction Level 4 (%)	14	14	14	14	29
Mass Reduction Level 5 (%)	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	4,497	4,497	4,497	4,509	4,464
Diff. from Baseline - Fleet (pounds)	0	0	0	-12	33
Avg Curb Weight - Passenger Car (pounds)	3,755	3,755	3,755	3,755	3,633
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	122
Avg Curb Weight - Light Truck (pounds)	4,589	4,589	4,589	4,603	4,567
Diff. from Baseline - Light Trucks (pounds)	0	0	0	-13	22

**Table 657 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	99	99	99	99	99
Mass Reduction Level 2 (%)	1	1	1	1	1
Mass Reduction Level 3 (%)	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,648	3,648	3,648	3,648	3,648
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0
Avg Curb Weight - Passenger Car (pounds)	3,279	3,279	3,279	3,279	3,279
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	3,703	3,703	3,703	3,703	3,703
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 658 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	0	0	0	0	0
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	0	0	0	0	0
Mass Reduction Level 4 (%)	85	85	85	85	85
Mass Reduction Level 5 (%)	15	15	15	15	15
Avg Curb Weight - Fleet (pounds)	4,301	4,301	4,301	4,301	4,301
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0
Avg Curb Weight - Passenger Car (pounds)	4,294	4,294	4,294	4,294	4,294
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	4,416	4,416	4,416	4,416	4,416
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 659 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	45	45	45	45	44
Mass Reduction Level 2 (%)	0	0	0	0	0
Mass Reduction Level 3 (%)	55	55	55	55	55
Mass Reduction Level 4 (%)	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	3,940	3,941	3,941	3,941	3,939
Diff. from Baseline - Fleet (pounds)	0	-1	-1	-1	0
Avg Curb Weight - Passenger Car (pounds)	3,350	3,350	3,350	3,350	3,350
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	4,265	4,265	4,265	4,265	4,265
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 660 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	27	27	27	27	27
Mass Reduction Level 2 (%)	73	73	73	73	73
Mass Reduction Level 3 (%)	0	0	0	0	0
Mass Reduction Level 4 (%)	0	0	0	0	0
Mass Reduction Level 5 (%)	0	0	0	0	0
Avg Curb Weight - Fleet (pounds)	4,340	4,340	4,340	4,340	4,340
Diff. from Baseline - Fleet (pounds)	0	0	0	0	0
Avg Curb Weight - Passenger Car (pounds)	4,279	4,279	4,279	4,279	4,279
Diff. from Baseline - Passenger Car (pounds)	0	0	0	0	0
Avg Curb Weight - Light Truck (pounds)	4,362	4,362	4,362	4,362	4,362
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	0

**Table 661 - Mass Reduction Penetration Rate and Curb Weights for Manufacturer (VWA), MY 2032 Total Fleet by Alternative**

<b>Mass Reduction Penetration Rate and Curb Weights for Manufacturer (VWA), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mass Reduction Level 0 (%)	0	0	0	0	0
Mass Reduction Level 1 (%)	75	72	75	75	31
Mass Reduction Level 2 (%)	0	3	0	0	24
Mass Reduction Level 3 (%)	19	19	19	19	19
Mass Reduction Level 4 (%)	2	2	2	2	23
Mass Reduction Level 5 (%)	3	3	3	3	3
Avg Curb Weight - Fleet (pounds)	3,961	3,960	3,962	3,962	3,896
Diff. from Baseline - Fleet (pounds)	0	1	-1	-1	65
Avg Curb Weight - Passenger Car (pounds)	3,512	3,506	3,512	3,512	3,373
Diff. from Baseline - Passenger Car (pounds)	0	5	0	0	138
Avg Curb Weight - Light Truck (pounds)	4,208	4,208	4,208	4,208	4,183
Diff. from Baseline - Light Trucks (pounds)	0	0	0	0	25

## Electrification Rates

**Table 662 - Electrification Rates (%) for Manufacturer (Total), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Total), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.4	0.6	0.6	0.8	0.6
Strong Hybrid	10.3	9.8	9.8	8.5	7.9
Plug-In Hybrid	2.7	3.2	3.1	4.6	6.8
Battery Electric Vehicles (BEVs)	52.80	54.42	55.58	57.35	68.10
BEV 1	5.43	5.39	5.36	5.20	5.15
BEV 2	34.96	35.05	35.45	35.34	35.12
BEV 3	11.65	13.21	14.01	16.03	27.06
BEV 4	0.77	0.77	0.77	0.77	0.77
Fuel Cell Vehicles (FCVs)	0.03	0.03	0.03	0.03	0.03



**Table 663 - Electrification Rates (%) for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Total), MY 2032 Passenger Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.9	1.6	1.6	2.4	0.9
Strong Hybrid	2.9	2.9	3.2	2.8	3.6
Plug-In Hybrid	0.5	0.6	0.5	1.2	1.5
Battery Electric Vehicles (BEVs)	67.21	69.17	68.98	69.55	78.08
BEV 1	10.35	10.29	10.27	10.31	10.24
BEV 2	37.43	37.44	36.60	33.81	38.14
BEV 3	17.03	19.04	19.72	23.04	27.29
BEV 4	2.39	2.40	2.40	2.40	2.40
Fuel Cell Vehicles (FCVs)	0.08	0.08	0.08	0.08	0.08

**Table 664 - Electrification Rates (%) for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Total), MY 2032 Light Truck Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.2	0.2	0.2	0.0	0.4
Strong Hybrid	13.8	13.1	12.9	11.1	10.0
Plug-In Hybrid	3.7	4.3	4.4	6.2	9.3
Battery Electric Vehicles (BEVs)	46.00	47.49	49.29	51.61	63.38
BEV 1	3.10	3.09	3.05	2.81	2.74
BEV 2	33.79	33.93	34.92	36.07	33.69
BEV 3	9.10	10.47	11.32	12.74	26.95
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 665 - Electrification Rates (%) for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Total), MY 2032 Domestic Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.3	0.3	0.3	1.1	0.3
Strong Hybrid	2.7	2.5	2.5	2.5	2.2
Plug-In Hybrid	1.0	1.1	0.9	1.1	0.8
Battery Electric Vehicles (BEVs)	72.02	76.84	74.38	73.77	81.60
BEV 1	7.45	7.42	7.70	8.10	8.27
BEV 2	38.24	39.55	38.91	33.19	33.51
BEV 3	21.52	25.07	22.96	27.68	35.02
BEV 4	4.80	4.80	4.80	4.80	4.80
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 666 - Electrification Rates (%) for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Total), MY 2032 Imported Car Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	1.5	2.8	2.8	3.8	1.4
Strong Hybrid	3.0	3.3	4.0	3.1	5.1
Plug-In Hybrid	0.1	0.1	0.1	1.2	2.3
Battery Electric Vehicles (BEVs)	62.51	61.70	63.71	65.44	74.64
BEV 1	13.17	13.09	12.77	12.47	12.17
BEV 2	36.64	35.38	34.34	34.40	42.66
BEV 3	12.65	13.16	16.55	18.50	19.75
BEV 4	0.05	0.06	0.06	0.06	0.05
Fuel Cell Vehicles (FCVs)	0.16	0.16	0.16	0.16	0.16

**Table 667 - Electrification Rates (%) for Manufacturer (BMW), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (BMW), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	34.7	33.3	32.0	34.4	31.0
Plug-In Hybrid	0.4	0.4	0.4	0.4	0.4
Battery Electric Vehicles (BEVs)	58.47	59.87	61.24	58.83	67.21
BEV 1	4.10	4.09	4.09	4.09	4.10
BEV 2	35.21	34.22	34.21	39.88	34.76
BEV 3	19.08	21.48	22.85	14.78	28.28
BEV 4	0.08	0.08	0.08	0.08	0.06
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 668 - Electrification Rates (%) for Manufacturer (Ford), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Ford), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	28.7	28.4	28.7	24.9	19.4
Plug-In Hybrid	0.0	0.0	0.0	0.1	3.5
Battery Electric Vehicles (BEVs)	41.05	43.25	46.55	51.80	67.95
BEV 1	4.25	4.25	4.25	3.67	3.68
BEV 2	32.89	35.09	37.10	36.32	34.36
BEV 3	3.91	3.91	5.20	11.81	29.91
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 669 - Electrification Rates (%) for Manufacturer (GM), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (GM), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	1.5	2.8	2.8	2.8	1.5
Strong Hybrid	16.9	7.5	7.4	5.8	10.7
Plug-In Hybrid	18.9	22.1	22.0	20.6	18.0
Battery Electric Vehicles (BEVs)	42.64	47.41	47.15	49.69	62.60
BEV 1	3.44	3.43	3.19	3.19	3.44
BEV 2	36.27	36.73	36.72	35.40	36.48
BEV 3	2.93	7.24	7.24	11.10	22.69
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 670 - Electrification Rates (%) for Manufacturer (Honda), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Honda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.9	0.8	0.0	0.8	6.7
Plug-In Hybrid	0.0	0.0	0.0	0.0	3.2
Battery Electric Vehicles (BEVs)	56.01	60.45	61.33	64.71	71.28
BEV 1	9.16	9.28	9.28	9.27	9.29
BEV 2	33.90	34.07	37.56	36.51	37.07
BEV 3	12.95	17.11	14.49	18.92	24.92
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00



**Table 671 - Electrification Rates (%) for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Hyundai Kia-H), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.7	3.2	0.0
Strong Hybrid	0.0	0.0	3.0	0.0	1.0
Plug-In Hybrid	0.0	0.0	0.0	7.9	5.5
Battery Electric Vehicles (BEVs)	57.03	59.58	62.68	59.02	75.63
BEV 1	4.18	4.37	4.37	4.37	4.38
BEV 2	38.41	38.31	35.87	35.66	35.73
BEV 3	14.43	16.89	22.44	18.99	35.52
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.14	0.14	0.14	0.14	0.14

**Table 672 - Electrification Rates (%) for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Hyundai Kia-K), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	1.0	0.0	0.0	5.2
Strong Hybrid	0.0	0.9	0.0	1.0	0.0
Plug-In Hybrid	0.0	0.0	1.4	0.0	0.0
Battery Electric Vehicles (BEVs)	62.29	64.46	67.43	71.65	79.25
BEV 1	3.70	4.20	4.20	4.20	3.80
BEV 2	37.55	37.61	38.09	38.30	37.49
BEV 3	21.05	22.64	25.14	29.15	37.96
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 673 - Electrification Rates (%) for Manufacturer (JLR), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (JLR), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	30.6	29.4	24.0	24.4	7.6
Plug-In Hybrid	0.0	10.6	10.6	0.0	0.0
Battery Electric Vehicles (BEVs)	51.10	44.56	49.97	60.22	76.97
BEV 1	4.85	4.85	4.85	4.85	4.85
BEV 2	44.12	33.63	33.64	39.62	44.14
BEV 3	2.13	6.07	11.49	15.75	27.98
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 674 - Electrification Rates (%) for Manufacturer (Karma), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Karma), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	50.00	50.00	50.00	50.00	50.00
BEV 2	50.00	50.00	50.00	50.00	50.00
BEV 3	0.00	0.00	0.00	0.00	0.00
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 675 - Electrification Rates (%) for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Lucid), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	0.00	0.00	0.00	0.00	0.00
BEV 2	0.00	0.00	0.00	0.00	0.00
BEV 3	0.00	0.00	0.00	0.00	0.00
BEV 4	100.00	100.00	100.00	100.00	100.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 676 - Electrification Rates (%) for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Mazda), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	63.30	63.41	63.40	63.40	61.84
BEV 1	6.28	6.33	6.33	6.33	5.55
BEV 2	42.30	42.37	42.36	42.36	31.34
BEV 3	14.71	14.71	14.71	14.71	24.96
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 677 - Electrification Rates (%) for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Mercedes-Benz), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	17.5	18.5	15.5	15.1	15.1
Plug-In Hybrid	0.3	0.3	0.3	0.3	1.7
Battery Electric Vehicles (BEVs)	72.44	73.01	76.78	76.40	83.55
BEV 1	8.25	8.08	8.08	8.08	8.10
BEV 2	36.62	36.78	35.28	35.06	36.06
BEV 3	27.26	27.75	33.01	32.86	38.98
BEV 4	0.31	0.41	0.41	0.40	0.41
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 678 - Electrification Rates (%) for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Mitsubishi), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	3.6
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	21.3
Battery Electric Vehicles (BEVs)	48.77	52.63	38.25	60.86	53.42
BEV 1	4.22	4.23	4.22	4.22	4.24
BEV 2	44.55	48.41	34.03	33.78	44.54
BEV 3	0.00	0.00	0.00	22.86	4.63
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00



**Table 679 - Electrification Rates (%) for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Nissan), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	1.9	0.0
Strong Hybrid	0.6	0.0	0.0	0.0	6.5
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	52.01	52.62	52.62	55.87	66.92
BEV 1	5.48	5.48	5.48	5.48	5.48
BEV 2	36.66	36.14	36.23	36.62	36.84
BEV 3	9.87	11.00	10.91	13.76	24.60
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 680 - Electrification Rates (%) for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Stellantis), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	1.0	0.9	0.9	0.0	0.0
Strong Hybrid	23.8	31.0	31.0	23.4	9.5
Plug-In Hybrid	1.2	1.4	1.1	11.9	26.4
Battery Electric Vehicles (BEVs)	43.44	43.36	46.22	46.47	57.29
BEV 1	3.32	3.32	3.28	3.28	3.28
BEV 2	34.60	34.52	35.18	33.73	33.86
BEV 3	5.51	5.52	7.77	9.46	20.15
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 681 - Electrification Rates (%) for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Subaru), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	3.2	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	46.49	47.55	47.55	47.55	61.04
BEV 1	3.50	3.52	3.52	3.52	3.53
BEV 2	31.49	32.25	32.24	32.24	33.72
BEV 3	11.49	11.79	11.79	11.78	23.79
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 682 - Electrification Rates (%) for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Tesla), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.0	0.0	0.0	0.0	0.0
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	100.00	100.00	100.00	100.00	100.00
BEV 1	0.00	0.00	0.00	0.00	0.00
BEV 2	18.28	18.27	18.27	18.27	18.28
BEV 3	57.48	57.49	57.49	57.49	57.48
BEV 4	24.24	24.24	24.24	24.24	24.24
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 683 - Electrification Rates (%) for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Toyota), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.0	0.0	0.0	0.0	0.0
Strong Hybrid	0.4	0.4	0.4	0.7	3.4
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.7
Battery Electric Vehicles (BEVs)	55.17	54.27	54.27	54.90	64.27
BEV 1	9.33	8.89	8.88	8.38	7.95
BEV 2	33.90	33.73	33.73	34.19	33.84
BEV 3	11.93	11.65	11.65	12.33	22.47
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.11	0.11	0.11	0.11	0.11

**Table 684 - Electrification Rates (%) for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (Volvo), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	10.5	10.5	10.5	10.5	14.0
Strong Hybrid	0.0	0.0	0.0	0.0	2.1
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	73.34	73.36	73.37	73.37	67.76
BEV 1	6.06	6.06	6.06	6.06	6.06
BEV 2	50.13	50.12	50.12	50.13	44.54
BEV 3	17.15	17.18	17.19	17.19	17.16
BEV 4	0.00	0.00	0.00	0.00	0.00
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

**Table 685 - Electrification Rates (%) for Manufacturer (VWA), MY 2032 Total Fleet by Alternative**

<b>Electrification Rates (%) for Manufacturer (VWA), MY 2032 Total Fleet by Alternative</b>					
Alternative	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Mild Hybrid	0.1	0.1	0.1	0.1	0.1
Strong Hybrid	7.2	7.2	7.2	7.2	7.2
Plug-In Hybrid	0.0	0.0	0.0	0.0	0.0
Battery Electric Vehicles (BEVs)	69.05	71.12	72.31	72.31	86.76
BEV 1	6.33	6.33	6.33	6.33	6.33
BEV 2	41.69	37.67	37.67	41.66	41.31
BEV 3	21.01	27.10	28.30	24.31	39.10
BEV 4	0.01	0.01	0.01	0.01	0.02
Fuel Cell Vehicles (FCVs)	0.00	0.00	0.00	0.00	0.00

## Required and Achieved CAFE Levels, Comparison

Table Error! No text of specified style in document.686 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4			
Model Year	Total		
	Required	Achieved	Difference
2022	35.8	34.1	-1.7
2023	36.1	35.5	-0.6
2024	39.0	38.5	-0.5
2025	42.2	40.8	-1.4
2026	46.8	43.7	-3.0
2027	48.4	48.1	-0.3
2028	50.1	50.9	0.8
2029	51.9	54.3	2.4
2030	53.8	56.9	3.1
2031	55.7	60.5	4.8
2032	57.7	64.3	6.5



**Table Error! No text of specified style in document.687 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

<b>Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4</b>			
Model Year	Total		
	Required	Achieved	Difference
2022	44.1	43.7	-0.4
2023	44.8	46.6	1.8
2024	48.7	51.3	2.6
2025	52.9	54.4	1.4
2026	58.8	59.9	1.1
2027	60.0	62.5	2.6
2028	61.2	66.3	5.1
2029	62.5	71.5	9.1
2030	63.7	78.0	14.2
2031	65.1	83.0	18.0
2032	66.4	96.4	30.0

**Table Error! No text of specified style in document.688 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

<b>Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4</b>			
Model Year	Total		
	Required	Achieved	Difference
2022	32.1	30.1	-2.0
2023	32.6	31.3	-1.3
2024	35.3	34.0	-1.3
2025	38.3	36.4	-2.0
2026	42.6	38.8	-3.9
2027	44.4	43.4	-0.9
2028	46.2	46.0	-0.3
2029	48.2	48.9	0.8
2030	50.2	50.6	0.4
2031	52.2	53.7	1.5
2032	54.4	55.6	1.2

**Table Error! No text of specified style in document.689 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	37.6	32.9	-4.7	31.4	29.0	-2.4	32.5	29.1	-3.4	39.1	37.8	-1.3
2023	37.9	34.8	-3.1	31.8	30.1	-1.8	32.9	29.0	-3.9	39.4	40.2	0.8
2024	41.0	38.0	-3.0	34.3	33.5	-0.7	35.2	33.7	-1.5	42.7	40.1	-2.5
2025	44.4	41.0	-3.4	37.2	34.3	-2.9	38.2	36.7	-1.5	46.2	41.7	-4.5
2026	49.3	46.7	-2.6	41.4	36.4	-5.0	42.3	38.1	-4.2	51.2	45.5	-5.7
2027	50.8	46.6	-4.2	42.9	42.7	-0.2	43.8	43.5	-0.4	52.8	54.9	2.1
2028	52.4	49.3	-3.1	44.7	46.3	1.6	45.6	43.7	-1.9	54.5	58.5	4.0
2029	54.1	50.7	-3.4	46.5	50.4	3.9	47.2	45.3	-1.9	56.2	60.2	3.9
2030	55.9	52.8	-3.0	48.4	50.5	2.1	49.1	46.1	-3.0	58.1	60.2	2.1
2031	57.8	53.5	-4.3	50.3	50.5	0.2	51.0	54.4	3.4	60.1	62.2	2.1
2032	59.7	68.6	9.0	52.3	51.0	-1.3	53.0	56.2	3.3	62.0	71.4	9.4

**Table Error! No text of specified style in document.690 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	39.6	39.1	-0.5	39.5	38.5	-1.0	32.9	27.4	-5.5	40.6	66.7	26.1
2023	40.0	40.8	0.8	39.8	40.5	0.7	33.4	34.2	0.8	41.1	66.7	25.6
2024	43.3	41.0	-2.3	43.1	44.7	1.6	36.2	36.7	0.5	44.3	66.7	22.4
2025	46.8	44.2	-2.6	46.7	44.7	-2.0	39.4	36.8	-2.6	48.1	66.7	18.6
2026	51.9	48.0	-3.9	51.7	49.5	-2.2	43.7	40.8	-2.9	53.5	138.6	85.1
2027	53.5	51.2	-2.3	53.3	49.4	-3.9	45.5	41.8	-3.7	55.2	138.6	83.4
2028	55.1	60.7	5.6	55.0	49.4	-5.7	47.4	41.8	-5.6	56.3	138.6	82.3
2029	56.8	60.7	3.9	56.7	58.9	2.2	49.4	41.8	-7.6	57.5	138.6	81.1
2030	58.6	60.7	2.1	58.5	60.2	1.7	51.4	44.1	-7.3	58.6	138.6	80.0
2031	60.4	67.7	7.2	60.5	72.8	12.3	53.6	52.4	-1.2	59.8	138.6	78.8
2032	62.3	77.2	14.9	62.4	82.2	19.8	55.8	55.7	0.0	61.1	138.6	77.5

**Table Error! No text of specified style in document.691 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	40.6	166.5	125.9	37.3	35.1	-2.2	36.8	31.6	-5.3	42.0	38.6	-3.4
2023	41.1	166.5	125.4	37.8	41.2	3.4	37.2	36.7	-0.5	42.5	38.8	-3.6
2024	44.3	166.5	122.2	41.0	42.4	1.4	40.2	37.2	-3.0	45.9	45.6	-0.3
2025	48.1	166.5	118.4	44.4	42.5	-1.9	43.6	37.9	-5.7	49.8	48.6	-1.2
2026	53.5	166.5	113.0	49.4	46.8	-2.5	48.4	43.5	-4.9	55.2	55.3	0.1
2027	55.2	166.5	111.3	51.3	51.0	-0.3	49.9	49.7	-0.2	56.9	55.2	-1.7
2028	56.3	166.5	110.2	53.3	51.0	-2.3	51.5	58.4	6.9	58.7	55.3	-3.4
2029	57.5	166.5	109.0	55.4	68.4	13.0	53.3	59.1	5.9	60.5	55.3	-5.3
2030	58.6	166.5	107.9	57.6	79.9	22.3	55.0	76.1	21.1	62.5	55.3	-7.2
2031	59.8	166.5	106.7	59.9	80.0	20.1	56.9	80.5	23.6	64.5	65.1	0.6
2032	61.1	170.6	109.5	62.3	80.0	17.7	58.8	83.6	24.9	66.6	65.6	-1.0

**Table Error! No text of specified style in document.692 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	38.9	36.8	-2.2	31.9	27.3	-4.5	37.8	36.7	-1.1	40.7	160.7	120.0
2023	39.3	39.6	0.4	32.3	28.5	-3.8	38.2	40.3	2.1	41.2	160.7	119.4
2024	42.4	41.8	-0.6	34.9	31.4	-3.5	41.4	42.2	0.8	44.8	160.7	115.9
2025	46.0	44.6	-1.4	38.0	37.1	-0.8	44.9	43.8	-1.1	48.6	160.6	112.0
2026	50.9	47.5	-3.4	42.1	37.6	-4.5	50.0	49.1	-0.9	54.1	160.6	106.5
2027	52.5	48.2	-4.3	43.8	43.9	0.1	51.9	50.4	-1.4	55.2	160.6	105.4
2028	54.1	56.9	2.8	45.6	44.3	-1.3	53.9	61.7	7.8	56.4	160.6	104.2
2029	55.8	58.6	2.8	47.3	50.7	3.4	56.0	63.9	7.9	57.7	160.6	102.9
2030	57.6	61.9	4.3	49.2	50.9	1.8	58.2	65.2	7.0	58.9	160.6	101.7
2031	59.5	62.4	2.9	51.1	51.8	0.6	60.5	65.2	4.7	60.3	160.6	100.4
2032	61.4	70.6	9.2	53.2	53.2	0.0	62.9	65.8	2.9	61.5	160.6	99.1

**Table Error! No text of specified style in document.693 - Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Total Fleet for Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	37.1	36.6	-0.4	36.0	39.0	3.1	37.9	33.8	-4.0	35.8	34.1	-1.7
2023	37.4	37.7	0.3	36.4	41.3	5.0	38.2	35.2	-3.0	36.1	35.5	-0.6
2024	40.4	40.6	0.2	39.4	41.3	1.9	41.3	40.3	-1.0	39.0	38.5	-0.5
2025	43.6	41.7	-1.9	42.6	45.3	2.6	44.8	42.7	-2.1	42.2	40.8	-1.4
2026	48.4	46.6	-1.8	47.4	46.1	-1.2	49.6	45.6	-4.1	46.8	43.7	-3.0
2027	50.0	48.2	-1.8	49.0	46.6	-2.4	51.3	47.4	-4.0	48.4	48.1	-0.3
2028	51.8	48.7	-3.0	50.8	46.6	-4.3	53.1	51.4	-1.8	50.1	50.9	0.8
2029	53.6	52.6	-0.9	52.7	47.0	-5.7	55.0	51.5	-3.4	51.9	54.3	2.4
2030	55.5	59.3	3.8	54.6	64.4	9.8	57.0	63.5	6.5	53.8	56.9	3.1
2031	57.5	63.2	5.8	56.7	65.6	8.9	59.0	71.5	12.5	55.7	60.5	4.8
2032	59.5	65.3	5.8	58.7	83.4	24.7	61.0	80.5	19.5	57.7	64.3	6.5

**Table Error! No text of specified style in document.694 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	43.3	35.4	-7.9	43.4	40.7	-2.7	45.1	39.1	-6.0	44.7	43.4	-1.3
2023	44.0	38.7	-5.3	44.1	40.8	-3.3	45.8	39.3	-6.5	45.4	46.9	1.5
2024	47.8	48.1	0.3	47.9	56.2	8.3	49.7	49.1	-0.6	49.4	47.2	-2.2
2025	52.0	50.2	-1.8	52.1	57.9	5.8	54.1	51.2	-2.9	53.7	48.7	-5.0
2026	57.7	56.7	-1.0	57.9	57.9	0.0	60.1	57.8	-2.3	59.6	53.1	-6.5
2027	58.9	56.7	-2.2	59.0	66.4	7.4	61.3	57.9	-3.4	60.8	57.4	-3.4
2028	60.1	66.4	6.3	60.2	66.4	6.2	62.6	58.3	-4.2	62.1	66.1	4.0
2029	61.3	70.7	9.4	61.5	66.4	4.9	63.9	77.7	13.8	63.3	70.8	7.5
2030	62.6	77.6	15.0	62.7	66.7	4.0	65.1	77.7	12.6	64.6	70.8	6.2
2031	63.9	79.3	15.4	64.0	66.7	2.7	66.5	88.6	22.1	66.0	72.0	6.0
2032	65.2	81.1	15.9	65.3	66.7	1.4	67.8	91.2	23.4	67.3	101.9	34.6



**Table Error! No text of specified style in document.695 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	44.2	42.9	-1.3	44.7	44.3	-0.5	43.2	29.4	-13.8	40.6	66.7	26.1
2023	44.9	46.0	1.1	45.4	46.5	1.1	43.8	54.5	10.7	41.1	66.7	25.6
2024	48.8	46.4	-2.5	49.4	55.7	6.3	47.6	54.5	6.9	44.3	66.7	22.4
2025	53.1	50.2	-2.9	53.6	55.7	2.0	51.8	54.5	2.7	48.1	66.7	18.6
2026	59.0	56.3	-2.7	59.6	58.2	-1.3	57.5	61.7	4.2	53.5	138.6	85.1
2027	60.2	61.0	0.8	60.8	58.3	-2.5	58.7	61.8	3.1	55.2	138.6	83.4
2028	61.4	65.4	4.0	62.1	58.3	-3.8	59.9	61.8	1.9	56.3	138.6	82.3
2029	62.7	65.4	2.7	63.3	69.5	6.2	61.1	61.8	0.7	57.5	138.6	81.1
2030	64.0	65.4	1.4	64.6	72.9	8.3	62.4	64.4	2.0	58.6	138.6	80.0
2031	65.3	65.7	0.4	65.9	94.6	28.7	63.6	64.3	0.7	59.8	138.6	78.8
2032	66.6	84.1	17.5	67.2	132.6	65.4	64.9	64.6	-0.3	61.1	138.6	77.5

**Table Error! No text of specified style in document.696 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	40.6	166.5	125.9	46.1	40.1	-6.0	41.8	34.1	-7.7	47.0	41.4	-5.6
2023	41.1	166.5	125.4	46.8	40.8	-6.0	42.4	41.6	-0.8	47.7	41.7	-6.0
2024	44.3	166.5	122.2	50.9	49.6	-1.3	46.1	43.4	-2.7	51.9	51.6	-0.3
2025	48.1	166.5	118.4	55.3	51.9	-3.4	50.1	46.1	-4.0	56.4	55.5	-0.9
2026	53.5	166.5	113.0	61.5	57.2	-4.3	55.6	54.5	-1.1	62.7	63.9	1.2
2027	55.2	166.5	111.3	62.7	60.7	-2.0	56.8	59.2	2.4	63.9	63.9	0.0
2028	56.3	166.5	110.2	64.0	61.2	-2.8	57.9	59.2	1.3	65.2	64.2	-1.0
2029	57.5	166.5	109.0	65.3	133.3	68.0	59.1	60.9	1.8	66.6	64.2	-2.4
2030	58.6	166.5	107.9	66.7	133.3	66.6	60.3	65.3	5.0	67.9	64.2	-3.7
2031	59.8	166.5	106.7	68.0	133.3	65.3	61.6	73.5	11.9	69.3	69.7	0.4
2032	61.1	170.6	109.5	69.4	133.4	64.0	62.8	79.8	17.0	70.7	70.8	0.1

**Table Error! No text of specified style in document.697 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	44.7	42.4	-2.3	41.8	28.2	-13.6	46.0	37.0	-9.0	41.1	161.0	119.9
2023	45.4	46.5	1.1	42.4	30.5	-11.9	46.7	46.1	-0.6	41.7	161.0	119.3
2024	49.3	50.0	0.6	46.1	41.2	-4.9	50.7	46.1	-4.6	45.3	161.0	115.7
2025	53.6	54.1	0.5	50.0	52.2	2.2	55.1	54.6	-0.5	49.3	161.0	111.7
2026	59.6	58.6	-1.0	55.6	54.3	-1.3	61.3	60.4	-0.9	54.8	161.0	106.2
2027	60.8	59.4	-1.4	56.8	54.3	-2.4	62.5	62.0	-0.5	55.9	161.0	105.1
2028	62.1	60.0	-2.0	57.9	54.9	-3.0	63.8	82.5	18.7	57.0	161.0	104.0
2029	63.3	60.0	-3.2	59.1	58.0	-1.1	65.1	129.6	64.5	58.2	161.0	102.8
2030	64.6	64.3	-0.3	60.3	61.4	1.1	66.4	169.1	102.7	59.4	161.0	101.7
2031	65.9	65.3	-0.6	61.5	74.6	13.1	67.8	169.0	101.2	60.7	161.0	100.4
2032	67.3	85.2	18.0	62.8	81.4	18.6	69.2	203.1	133.9	61.9	161.0	99.2

**Table Error! No text of specified style in document.698 - Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Passenger Car Fleet for Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	44.7	44.0	-0.7	42.9	53.6	10.6	45.0	37.8	-7.2	44.1	43.7	-0.4
2023	45.4	46.3	0.9	43.6	55.4	11.8	45.7	38.8	-6.9	44.8	46.6	1.8
2024	49.4	47.6	-1.7	47.4	56.0	8.6	49.7	44.3	-5.3	48.7	51.3	2.6
2025	53.6	49.5	-4.2	51.5	59.6	8.1	54.0	47.5	-6.6	52.9	54.4	1.4
2026	59.6	56.4	-3.2	57.2	63.5	6.2	60.0	55.1	-4.9	58.8	59.9	1.1
2027	60.8	58.5	-2.3	58.3	63.4	5.1	61.2	61.3	0.1	60.0	62.5	2.6
2028	62.1	59.3	-2.8	59.5	63.4	3.9	62.5	85.0	22.5	61.2	66.3	5.1
2029	63.4	63.1	-0.3	60.8	64.2	3.4	63.8	85.2	21.5	62.5	71.5	9.1
2030	64.6	89.2	24.5	62.0	65.7	3.7	65.1	85.4	20.3	63.7	78.0	14.2
2031	65.9	94.8	28.9	63.3	68.2	4.9	66.4	98.2	31.8	65.1	83.0	18.0
2032	67.3	96.3	29.0	64.6	68.6	4.0	67.7	98.2	30.5	66.4	96.4	30.0

**Table Error! No text of specified style in document.699 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	32.5	30.3	-2.2	30.3	27.9	-2.4	29.8	26.8	-3.0	34.0	32.8	-1.2
2023	33.0	31.3	-1.7	30.8	29.1	-1.7	30.3	26.9	-3.4	34.5	34.8	0.3
2024	35.9	31.3	-4.6	33.2	32.1	-1.1	32.5	30.9	-1.6	37.5	34.9	-2.6
2025	39.0	34.9	-4.1	36.1	32.9	-3.2	35.4	34.1	-1.3	40.8	36.7	-4.1
2026	43.4	40.1	-3.3	40.2	35.1	-5.1	39.3	35.0	-4.3	45.3	40.2	-5.1
2027	45.2	40.1	-5.1	41.8	41.2	-0.6	40.9	40.9	0.0	47.2	52.9	5.7
2028	47.0	40.1	-6.9	43.6	45.0	1.4	42.7	41.1	-1.6	49.2	53.1	3.9
2029	49.0	40.6	-8.4	45.4	49.3	3.9	44.4	41.1	-3.3	51.2	53.1	1.9
2030	51.0	41.1	-9.9	47.3	49.3	2.0	46.3	41.9	-4.4	53.4	53.2	-0.2
2031	53.2	41.4	-11.8	49.2	49.3	0.1	48.2	49.6	1.4	55.6	55.4	-0.2
2032	55.4	60.2	4.8	51.3	49.8	-1.5	50.2	51.3	1.1	57.9	56.3	-1.6

**Table Error! No text of specified style in document.700 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	34.0	34.3	0.3	34.0	32.6	-1.4	32.7	27.3	-5.4	0.0	0.0	0.0
2023	34.5	35.1	0.6	34.5	34.9	0.4	33.2	33.9	0.7	0.0	0.0	0.0
2024	37.5	35.4	-2.1	37.5	36.3	-1.2	36.0	36.4	0.4	0.0	0.0	0.0
2025	40.7	38.4	-2.3	40.8	36.6	-4.2	39.2	36.5	-2.7	0.0	0.0	0.0
2026	45.3	40.7	-4.6	45.3	42.6	-2.7	43.5	40.5	-3.0	0.0	0.0	0.0
2027	47.2	42.9	-4.3	47.2	42.6	-4.6	45.3	41.5	-3.8	0.0	0.0	0.0
2028	49.1	56.0	6.9	49.2	42.6	-6.6	47.2	41.5	-5.7	0.0	0.0	0.0
2029	51.2	56.0	4.8	51.2	51.0	-0.2	49.2	41.5	-7.7	0.0	0.0	0.0
2030	53.3	56.0	2.7	53.3	51.0	-2.3	51.2	43.8	-7.4	0.0	0.0	0.0
2031	55.5	70.2	14.7	55.6	58.6	3.0	53.4	52.2	-1.2	0.0	0.0	0.0
2032	57.8	70.2	12.4	57.9	58.6	0.7	55.6	55.6	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.701 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

<b>Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4</b>												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	0.0	0.0	0.0	36.0	34.3	-1.7	32.9	29.4	-3.5	37.0	35.6	-1.4
2023	0.0	0.0	0.0	36.6	41.3	4.7	33.4	33.1	-0.3	37.6	35.9	-1.7
2024	0.0	0.0	0.0	39.8	41.4	1.6	36.3	33.2	-3.1	40.8	40.5	-0.3
2025	0.0	0.0	0.0	43.2	41.4	-1.8	39.5	33.2	-6.3	44.4	43.1	-1.3
2026	0.0	0.0	0.0	48.0	45.6	-2.4	43.9	37.6	-6.3	49.3	48.8	-0.5
2027	0.0	0.0	0.0	50.0	49.8	-0.2	45.7	44.3	-1.4	51.4	48.8	-2.6
2028	0.0	0.0	0.0	52.1	49.8	-2.3	47.6	57.8	10.2	53.5	48.8	-4.7
2029	0.0	0.0	0.0	54.3	64.1	9.8	49.6	57.8	8.2	55.7	48.8	-6.9
2030	0.0	0.0	0.0	56.5	75.7	19.2	51.6	86.8	35.2	58.1	48.8	-9.3
2031	0.0	0.0	0.0	58.9	75.7	16.8	53.8	86.8	33.0	60.5	61.2	0.7
2032	0.0	0.0	0.0	61.4	75.7	14.3	56.0	86.8	30.8	63.0	61.3	-1.7

**Table Error! No text of specified style in document.702 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	32.9	30.9	-2.0	30.7	27.2	-3.5	36.5	36.6	0.1	33.4	154.4	121.0
2023	33.4	33.3	-0.1	31.2	28.3	-2.9	37.0	39.4	2.4	33.9	154.4	120.5
2024	36.3	34.9	-1.4	33.8	30.4	-3.4	40.2	41.6	1.4	36.9	154.4	117.5
2025	39.5	37.1	-2.4	36.8	35.8	-1.0	43.7	42.5	-1.2	40.1	154.4	114.3
2026	43.9	39.3	-4.6	40.9	36.2	-4.7	48.6	47.7	-0.9	44.5	154.4	109.9
2027	45.7	40.0	-5.7	42.6	42.9	0.3	50.6	49.1	-1.5	46.4	154.4	108.0
2028	47.6	53.9	6.3	44.4	43.3	-1.1	52.7	59.5	6.8	48.3	154.4	106.1
2029	49.6	57.1	7.5	46.2	49.9	3.7	54.9	59.5	4.6	50.3	154.4	104.1
2030	51.7	59.5	7.8	48.1	49.9	1.8	57.2	59.9	2.7	52.4	154.4	102.0
2031	53.8	59.5	5.7	50.1	49.9	-0.2	59.6	59.8	0.2	54.6	154.4	99.8
2032	56.1	59.6	3.5	52.2	51.0	-1.2	62.1	59.8	-2.3	56.9	154.4	97.5



**Table Error! No text of specified style in document.703 - Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Light Truck Fleet for Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	33.0	32.7	-0.3	33.4	34.5	1.1	34.0	31.5	-2.5	32.1	30.1	-2.0
2023	33.5	33.6	0.1	33.9	37.2	3.3	34.5	33.1	-1.4	32.6	31.3	-1.3
2024	36.3	37.2	0.9	36.8	37.3	0.5	37.5	38.2	0.7	35.3	34.0	-1.3
2025	39.4	38.3	-1.1	40.0	41.4	1.4	40.8	40.4	-0.4	38.3	36.4	-2.0
2026	43.8	42.5	-1.3	44.5	41.9	-2.6	45.3	41.6	-3.7	42.6	38.8	-3.9
2027	45.6	44.0	-1.6	46.3	42.5	-3.8	47.2	42.1	-5.1	44.4	43.4	-0.9
2028	47.5	44.5	-3.0	48.3	42.5	-5.8	49.2	42.4	-6.8	46.2	46.0	-0.3
2029	49.5	48.4	-1.1	50.3	42.9	-7.4	51.2	42.6	-8.6	48.2	48.9	0.8
2030	51.6	50.3	-1.3	52.4	64.0	11.6	53.4	55.8	2.4	50.2	50.6	0.4
2031	53.7	53.5	-0.2	54.6	64.7	10.1	55.6	62.3	6.7	52.2	53.7	1.5
2032	55.9	55.5	-0.4	56.8	90.6	33.8	57.9	73.3	15.4	54.4	55.6	1.2

**Table Error! No text of specified style in document.704 - Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4**

<b>Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4</b>												
Model Year	BMW			Ford			GM			Honda		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	0.0	0.0	0.0	43.4	40.7	-2.7	44.3	38.3	-6.0	44.7	43.4	-1.3
2023	0.0	0.0	0.0	44.1	40.8	-3.3	45.0	38.6	-6.4	45.4	46.9	1.5
2024	0.0	0.0	0.0	47.9	56.2	8.3	48.9	49.6	0.7	49.4	47.2	-2.2
2025	0.0	0.0	0.0	52.1	57.9	5.8	53.2	51.2	-2.0	53.7	48.7	-5.0
2026	0.0	0.0	0.0	57.9	57.9	0.0	59.1	56.7	-2.4	59.6	53.1	-6.5
2027	0.0	0.0	0.0	59.0	66.4	7.4	60.3	56.9	-3.4	60.8	57.4	-3.4
2028	0.0	0.0	0.0	60.2	66.4	6.2	61.5	57.4	-4.1	62.1	66.1	4.0
2029	0.0	0.0	0.0	61.5	66.4	4.9	62.8	84.7	21.9	63.3	70.8	7.5
2030	0.0	0.0	0.0	62.7	66.7	4.0	64.0	84.7	20.7	64.6	70.8	6.2
2031	0.0	0.0	0.0	64.0	66.7	2.7	65.4	95.6	30.2	66.0	72.0	6.0
2032	0.0	0.0	0.0	65.3	66.7	1.4	66.7	100.0	33.3	67.3	101.9	34.6

**Table Error! No text of specified style in document.705 - Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	48.7	50.7	2.0	45.8	45.0	-0.8	0.0	0.0	0.0	40.6	66.7	26.1
2023	49.5	284.8	235.3	46.5	45.0	-1.5	0.0	0.0	0.0	41.1	66.7	25.6
2024	53.8	284.8	231.0	50.6	61.5	10.9	0.0	0.0	0.0	44.3	66.7	22.4
2025	58.4	284.8	226.4	55.0	61.5	6.5	0.0	0.0	0.0	48.1	66.7	18.6
2026	64.9	284.8	219.9	61.1	61.5	0.4	0.0	0.0	0.0	53.5	138.6	85.1
2027	66.3	284.8	218.5	62.3	61.5	-0.8	0.0	0.0	0.0	55.2	138.6	83.4
2028	67.6	295.8	228.2	63.6	61.5	-2.1	0.0	0.0	0.0	56.3	138.6	82.3
2029	69.0	295.8	226.8	64.9	115.2	50.3	0.0	0.0	0.0	57.5	138.6	81.1
2030	70.4	295.8	225.4	66.2	115.2	49.0	0.0	0.0	0.0	58.6	138.6	80.0
2031	71.8	295.8	224.0	67.6	115.2	47.6	0.0	0.0	0.0	59.8	138.6	78.8
2032	73.3	295.8	222.5	69.0	115.2	46.2	0.0	0.0	0.0	61.1	138.6	77.5

**Table Error! No text of specified style in document.706 - Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	40.6	166.5	125.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	41.1	166.5	125.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	44.3	166.5	122.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	48.1	166.5	118.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	53.5	166.5	113.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	55.2	166.5	111.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	56.3	166.5	110.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	57.5	166.5	109.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	58.6	166.5	107.9	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	59.8	166.5	106.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2032	61.1	170.6	109.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.707 - Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	44.5	41.7	-2.8	41.4	27.8	-13.6	0.0	0.0	0.0	40.8	157.5	116.7
2023	45.2	42.8	-2.4	42.0	30.1	-11.9	0.0	0.0	0.0	41.4	157.5	116.1
2024	49.1	46.4	-2.7	45.7	41.2	-4.5	0.0	0.0	0.0	45.0	157.5	112.5
2025	53.4	51.4	-2.0	49.6	52.7	3.1	0.0	0.0	0.0	48.9	157.5	108.6
2026	59.3	57.1	-2.2	55.1	53.8	-1.3	0.0	0.0	0.0	54.4	157.5	103.1
2027	60.5	58.2	-2.3	56.3	53.8	-2.5	0.0	0.0	0.0	55.5	157.5	102.0
2028	61.8	58.2	-3.6	57.4	54.4	-3.0	0.0	0.0	0.0	56.6	157.5	100.9
2029	63.0	58.2	-4.8	58.6	57.9	-0.7	0.0	0.0	0.0	57.8	157.5	99.7
2030	64.3	63.8	-0.5	59.8	61.4	1.6	0.0	0.0	0.0	58.9	157.5	98.6
2031	65.6	65.2	-0.4	61.0	76.7	15.7	0.0	0.0	0.0	60.2	157.5	97.3
2032	67.0	91.6	24.6	62.2	76.7	14.5	0.0	0.0	0.0	61.4	157.5	96.1

**Table Error! No text of specified style in document.708 - Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Domestic Car Fleet for Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	43.1	41.0	-2.1	42.3	42.2	-0.1	41.4	32.8	-8.6	43.5	44.9	1.3
2023	43.7	41.5	-2.2	42.9	45.5	2.6	42.0	32.8	-9.2	44.2	46.9	2.7
2024	47.5	44.3	-3.2	46.7	45.5	-1.2	45.7	38.2	-7.5	48.1	53.1	5.1
2025	51.7	48.6	-3.1	50.7	49.5	-1.2	49.6	38.2	-11.4	52.3	56.8	4.6
2026	57.4	53.1	-4.3	56.4	58.2	1.8	55.2	80.6	25.4	58.0	61.4	3.4
2027	58.6	55.4	-3.2	57.5	58.2	0.7	56.3	80.6	24.3	59.2	64.2	4.9
2028	59.8	56.0	-3.8	58.7	58.2	-0.5	57.4	80.6	23.2	60.4	67.3	6.8
2029	61.0	57.8	-3.2	59.9	58.2	-1.7	58.6	83.0	24.4	61.7	74.0	12.3
2030	62.2	173.2	111.0	61.1	60.3	-0.8	59.8	83.0	23.2	62.9	82.3	19.4
2031	63.5	218.7	155.2	62.3	60.3	-2.0	61.0	83.0	22.0	64.2	86.8	22.6
2032	64.8	218.7	153.9	63.6	60.3	-3.3	62.3	83.0	20.7	65.5	104.3	38.8

**Table Error! No text of specified style in document.709 - Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	43.3	35.4	-7.9	0.0	0.0	0.0	47.1	41.1	-6.0	44.9	29.4	-15.5
2023	44.0	38.7	-5.3	0.0	0.0	0.0	47.9	41.2	-6.7	45.6	30.0	-15.6
2024	47.8	48.1	0.3	0.0	0.0	0.0	52.0	48.0	-4.0	49.5	30.1	-19.4
2025	52.0	50.2	-1.8	0.0	0.0	0.0	56.5	51.3	-5.2	53.8	30.2	-23.6
2026	57.7	56.7	-1.0	0.0	0.0	0.0	62.8	60.7	-2.1	59.8	103.6	43.8
2027	58.9	56.7	-2.2	0.0	0.0	0.0	64.1	60.7	-3.4	61.1	103.4	42.3
2028	60.1	66.4	6.3	0.0	0.0	0.0	65.4	60.7	-4.7	62.3	103.4	41.1
2029	61.3	70.7	9.4	0.0	0.0	0.0	66.8	64.1	-2.7	63.6	103.4	39.8
2030	62.6	77.6	15.0	0.0	0.0	0.0	68.1	64.1	-4.0	64.9	103.4	38.5
2031	63.9	79.3	15.4	0.0	0.0	0.0	69.5	74.6	5.1	66.2	103.4	37.2
2032	65.2	81.1	15.9	0.0	0.0	0.0	70.9	74.6	3.7	67.5	103.4	35.9

**Table Error! No text of specified style in document.710 - Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4**

<b>Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	44.1	42.7	-1.4	44.4	44.1	-0.3	43.2	29.4	-13.8	0.0	0.0	0.0
2023	44.8	44.7	-0.1	45.0	46.9	1.9	43.8	54.5	10.7	0.0	0.0	0.0
2024	48.7	45.1	-3.6	49.0	54.0	5.0	47.6	54.5	6.9	0.0	0.0	0.0
2025	52.9	48.8	-4.1	53.2	54.0	0.8	51.8	54.5	2.7	0.0	0.0	0.0
2026	58.8	54.8	-4.0	59.1	57.3	-1.8	57.5	61.7	4.2	0.0	0.0	0.0
2027	60.0	59.4	-0.6	60.3	57.3	-3.0	58.7	61.8	3.1	0.0	0.0	0.0
2028	61.2	63.8	2.6	61.6	57.3	-4.3	59.9	61.8	1.9	0.0	0.0	0.0
2029	62.5	63.8	1.3	62.8	61.7	-1.1	61.1	61.8	0.7	0.0	0.0	0.0
2030	63.8	63.8	0.0	64.1	65.3	1.2	62.4	64.4	2.0	0.0	0.0	0.0
2031	65.1	64.0	-1.1	65.4	89.5	24.1	63.6	64.3	0.7	0.0	0.0	0.0
2032	66.4	82.2	15.8	66.7	139.3	72.6	64.9	64.6	-0.3	0.0	0.0	0.0



**Table Error! No text of specified style in document.711 - Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	0.0	0.0	0.0	46.1	40.1	-6.0	41.8	34.1	-7.7	47.0	41.4	-5.6
2023	0.0	0.0	0.0	46.8	40.8	-6.0	42.4	41.6	-0.8	47.7	41.7	-6.0
2024	0.0	0.0	0.0	50.9	49.6	-1.3	46.1	43.4	-2.7	51.9	51.6	-0.3
2025	0.0	0.0	0.0	55.3	51.9	-3.4	50.1	46.1	-4.0	56.4	55.5	-0.9
2026	0.0	0.0	0.0	61.5	57.2	-4.3	55.6	54.5	-1.1	62.7	63.9	1.2
2027	0.0	0.0	0.0	62.7	60.7	-2.0	56.8	59.2	2.4	63.9	63.9	0.0
2028	0.0	0.0	0.0	64.0	61.2	-2.8	57.9	59.2	1.3	65.2	64.2	-1.0
2029	0.0	0.0	0.0	65.3	133.3	68.0	59.1	60.9	1.8	66.6	64.2	-2.4
2030	0.0	0.0	0.0	66.7	133.3	66.6	60.3	65.3	5.0	67.9	64.2	-3.7
2031	0.0	0.0	0.0	68.0	133.3	65.3	61.6	73.5	11.9	69.3	69.7	0.4
2032	0.0	0.0	0.0	69.4	133.4	64.0	62.8	79.8	17.0	70.7	70.8	0.1

**Table Error! No text of specified style in document.712 - Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	45.2	44.3	-0.9	44.9	32.2	-12.7	46.0	37.0	-9.0	42.4	177.7	135.3
2023	45.9	60.2	14.3	45.5	34.1	-11.4	46.7	46.1	-0.6	43.1	177.7	134.6
2024	49.9	62.5	12.6	49.5	41.0	-8.5	50.7	46.1	-4.6	46.8	177.7	130.9
2025	54.3	62.6	8.3	53.8	48.5	-5.3	55.1	54.6	-0.5	50.9	177.7	126.8
2026	60.3	62.7	2.4	59.8	58.9	-0.9	61.3	60.4	-0.9	56.6	177.7	121.1
2027	61.5	62.7	1.2	61.0	58.9	-2.1	62.5	62.0	-0.5	57.7	177.7	120.0
2028	62.8	65.4	2.6	62.3	58.9	-3.4	63.8	82.5	18.7	58.9	177.7	118.8
2029	64.0	65.4	1.4	63.5	58.9	-4.6	65.1	129.6	64.5	60.1	177.7	117.6
2030	65.4	65.6	0.2	64.8	61.5	-3.3	66.4	169.1	102.7	61.3	177.7	116.4
2031	66.7	65.6	-1.1	66.1	61.5	-4.6	67.8	169.0	101.2	62.6	177.7	115.1
2032	68.0	72.1	4.1	67.5	158.2	90.7	69.2	203.1	133.9	63.8	177.7	113.9

**Table Error! No text of specified style in document.713 - Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4**

Required and Achieved CAFE Levels (mpg) for Imported Car Fleet for Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference	Required	Achieved	Difference
2022	45.3	45.2	-0.1	43.2	60.6	17.4	45.3	38.2	-7.1	44.7	42.7	-2.0
2023	46.0	48.2	2.2	43.9	61.2	17.3	46.0	39.4	-6.6	45.4	46.3	0.9
2024	50.0	48.8	-1.2	47.7	62.2	14.5	50.0	44.9	-5.1	49.3	49.6	0.3
2025	54.3	49.8	-4.5	51.8	65.4	13.6	54.4	48.4	-6.0	53.6	52.1	-1.4
2026	60.4	57.6	-2.8	57.6	66.0	8.4	60.4	53.8	-6.6	59.5	58.5	-1.0
2027	61.6	59.6	-2.0	58.7	66.0	7.3	61.6	60.2	-1.4	60.7	61.0	0.3
2028	62.9	60.5	-2.4	59.9	66.0	6.1	62.9	85.4	22.5	62.0	65.5	3.5
2029	64.2	65.1	0.9	61.2	67.2	6.0	64.2	85.4	21.2	63.3	69.3	6.0
2030	65.5	76.8	11.3	62.4	68.3	5.9	65.5	85.6	20.1	64.6	74.2	9.6
2031	66.8	79.8	13.0	63.7	72.3	8.6	66.8	99.5	32.7	65.9	79.7	13.8
2032	68.2	81.2	13.0	65.0	73.0	8.0	68.2	99.6	31.4	67.2	89.7	22.5

## Regulatory Costs, Comparison

**Table Error! No text of specified style in document.714 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	2.0	2.0	0.0
2023	11.3	11.3	0.0
2024	17.9	17.9	0.0
2025	22.3	22.3	0.0
2026	29.5	29.5	0.0
2027	33.4	38.6	5.3
2028	36.9	42.5	5.6
2029	38.6	44.2	5.6
2030	39.3	43.9	4.6
2031	40.7	45.3	4.6
2032	40.8	45.2	4.4

**Table Error! No text of specified style in document.715 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.9	0.9	0.0
2023	2.4	2.4	0.0
2024	4.5	4.5	0.0
2025	5.4	5.4	0.0
2026	7.3	7.3	0.0
2027	7.3	8.2	0.9
2028	7.8	9.0	1.2
2029	8.5	9.8	1.3
2030	9.2	10.4	1.2
2031	9.4	10.6	1.2
2032	10.4	11.7	1.3

**Table Error! No text of specified style in document.716 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	1.1	1.1	0.0
2023	8.9	8.9	0.0
2024	13.5	13.5	0.0
2025	16.9	16.9	0.0
2026	22.2	22.2	0.0
2027	26.0	30.4	4.4
2028	29.1	33.5	4.4
2029	30.1	34.4	4.3
2030	30.1	33.5	3.4
2031	31.3	34.6	3.4
2032	30.3	33.5	3.1

**Table Error! No text of specified style in document.717 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.2	0.2	0.0	0.1	0.1	0.0	0.5	0.5	0.0	0.0	0.0	0.0
2023	0.2	0.2	0.0	3.1	3.1	0.0	0.7	0.7	0.0	0.7	0.7	0.0
2024	0.4	0.4	0.0	4.4	4.4	0.0	3.3	3.3	0.0	0.8	0.8	0.0
2025	0.6	0.6	0.0	4.5	4.5	0.0	4.1	4.1	0.0	1.1	1.1	0.0
2026	0.7	0.7	0.0	5.0	5.0	0.0	4.6	4.6	0.0	1.9	1.9	0.0
2027	0.6	0.6	0.0	5.8	6.6	0.8	4.6	6.3	1.8	3.5	3.6	0.1
2028	0.7	0.7	0.1	6.7	7.3	0.7	4.3	6.1	1.7	3.6	3.7	0.1
2029	0.6	0.8	0.2	6.7	7.4	0.7	4.6	6.1	1.6	3.4	3.5	0.1
2030	0.6	0.8	0.2	6.2	6.8	0.6	4.5	6.0	1.5	3.0	3.1	0.1
2031	0.6	0.8	0.2	5.7	6.2	0.5	6.3	7.8	1.5	2.9	3.0	0.1
2032	0.8	0.9	0.1	5.3	5.8	0.5	6.1	7.5	1.4	3.0	3.4	0.3

**Table Error! No text of specified style in document.718 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.6	0.6	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2024	0.5	0.5	0.0	0.4	0.4	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2025	0.8	0.8	0.0	0.3	0.3	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2026	1.4	1.4	0.0	0.8	0.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2027	1.5	1.8	0.3	0.8	0.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2028	2.2	2.7	0.4	0.7	0.7	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2029	2.0	2.4	0.4	1.2	1.3	0.1	0.1	0.1	0.0	0.0	0.0	0.0
2030	1.8	2.2	0.4	1.1	1.3	0.2	0.1	0.2	0.0	0.0	0.0	0.0
2031	2.1	2.5	0.4	1.4	1.7	0.3	0.1	0.2	0.1	0.0	0.0	0.0
2032	2.4	2.8	0.4	1.6	1.8	0.3	0.1	0.2	0.1	0.0	0.0	0.0



**Table Error! No text of specified style in document.719 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.2	0.2	0.0	0.2	0.2	0.0	0.2	0.2	0.0
2025	0.0	0.0	0.0	0.2	0.2	0.0	0.4	0.4	0.0	0.2	0.2	0.0
2026	0.0	0.0	0.0	0.4	0.4	0.0	0.6	0.6	0.0	0.3	0.3	0.0
2027	0.0	0.0	0.0	0.4	1.2	0.8	0.8	0.8	0.0	0.3	0.3	0.0
2028	0.0	0.0	0.0	0.4	1.2	0.8	0.9	0.9	0.1	0.2	0.2	0.0
2029	0.0	0.0	0.0	0.7	1.7	1.0	0.8	0.9	0.1	0.2	0.2	0.0
2030	0.0	0.0	0.0	0.8	1.7	0.9	1.0	1.1	0.1	0.2	0.2	0.0
2031	0.0	0.0	0.0	0.7	1.6	0.9	1.0	1.1	0.1	0.3	0.2	-0.1
2032	0.0	0.0	0.0	0.7	1.5	0.8	0.9	1.0	0.1	0.3	0.2	-0.1

**Table Error! No text of specified style in document.720 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.7	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	1.4	1.4	0.0	2.4	2.4	0.0	0.4	0.4	0.0	0.0	0.0	0.0
2024	1.6	1.6	0.0	3.5	3.5	0.0	0.4	0.4	0.0	0.0	0.0	0.0
2025	2.1	2.1	0.0	5.0	5.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0
2026	2.3	2.3	0.0	5.1	5.1	0.0	1.3	1.3	0.0	0.0	0.0	0.0
2027	2.5	2.6	0.0	5.4	7.0	1.6	1.6	1.5	-0.1	0.0	0.0	0.0
2028	3.4	3.5	0.1	5.3	6.8	1.5	2.6	2.6	0.0	0.0	0.0	0.0
2029	3.3	3.4	0.1	6.3	7.5	1.2	2.4	2.5	0.0	0.0	0.0	0.0
2030	3.1	3.2	0.1	6.8	6.9	0.1	2.3	2.3	0.0	0.0	0.0	0.0
2031	2.9	3.0	0.1	6.4	6.6	0.1	2.0	2.1	0.1	0.0	0.0	0.0
2032	3.3	3.4	0.1	6.2	6.4	0.2	1.9	1.9	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.721 - Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	2.0	2.0	0.0
2023	0.5	0.5	0.0	0.0	0.0	0.0	0.8	0.8	0.0	11.3	11.3	0.0
2024	1.0	1.0	0.0	0.0	0.0	0.0	0.9	0.9	0.0	17.9	17.9	0.0
2025	1.2	1.2	0.0	0.1	0.1	0.0	1.1	1.1	0.0	22.3	22.3	0.0
2026	3.5	3.5	0.0	0.2	0.2	0.0	1.3	1.3	0.0	29.5	29.5	0.0
2027	3.9	3.9	0.0	0.1	0.2	0.0	1.4	1.4	0.0	33.4	38.6	5.3
2028	3.8	3.9	0.1	0.1	0.1	0.0	1.6	1.7	0.0	36.9	42.5	5.6
2029	4.7	4.7	0.1	0.1	0.1	0.0	1.5	1.5	0.1	38.6	44.2	5.6
2030	5.6	5.6	0.0	0.3	0.3	0.0	1.8	2.1	0.3	39.3	43.9	4.6
2031	5.8	5.8	0.0	0.3	0.3	0.0	2.0	2.3	0.3	40.7	45.3	4.6
2032	5.7	5.6	-0.1	0.4	0.4	0.0	2.1	2.4	0.2	40.8	45.2	4.4

**Table Error! No text of specified style in document.722 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.1	0.1	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2023	0.1	0.1	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.3	0.0
2024	0.3	0.3	0.0	0.2	0.2	0.0	0.7	0.7	0.0	0.3	0.3	0.0
2025	0.3	0.3	0.0	0.3	0.3	0.0	0.7	0.7	0.0	0.5	0.5	0.0
2026	0.4	0.4	0.0	0.3	0.3	0.0	0.9	0.9	0.0	0.8	0.8	0.0
2027	0.3	0.3	0.0	0.3	0.4	0.1	0.8	1.2	0.4	0.9	0.9	0.1
2028	0.4	0.4	0.0	0.3	0.3	0.1	0.8	1.2	0.4	1.2	1.2	0.1
2029	0.4	0.4	0.1	0.2	0.3	0.1	1.3	1.6	0.3	1.2	1.3	0.1
2030	0.4	0.4	0.1	0.2	0.2	0.1	1.3	1.5	0.2	1.0	1.1	0.1
2031	0.3	0.4	0.1	0.2	0.2	0.1	1.3	1.6	0.3	1.0	1.1	0.1
2032	0.3	0.3	0.0	0.2	0.2	0.0	1.2	1.5	0.3	1.3	1.5	0.2

**Table Error! No text of specified style in document.723 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2024	0.5	0.5	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2025	0.6	0.6	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2026	0.9	0.9	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2027	0.9	1.2	0.2	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2028	0.9	1.3	0.4	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2029	0.8	1.2	0.4	0.6	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2030	0.8	1.1	0.4	0.5	0.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2031	0.7	1.0	0.3	0.8	0.8	0.1	0.0	0.0	0.0	0.0	0.0	0.0
2032	1.1	1.5	0.4	1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.724 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.1	0.1	0.0
2025	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.2	0.0	0.1	0.1	0.0
2026	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1	0.1	0.0
2027	0.0	0.0	0.0	0.0	0.0	0.0	0.3	0.3	0.0	0.1	0.1	0.0
2028	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.3	0.0	0.1	0.1	0.0
2029	0.0	0.0	0.0	0.1	0.4	0.3	0.2	0.2	0.0	0.1	0.1	0.0
2030	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.3	0.0	0.1	0.1	0.0
2031	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.0
2032	0.0	0.0	0.0	0.1	0.3	0.2	0.2	0.3	0.1	0.1	0.1	0.0

**Table Error! No text of specified style in document.725 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.4	0.4	0.0	0.2	0.2	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2024	0.5	0.5	0.0	0.7	0.7	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2025	0.7	0.7	0.0	0.7	0.7	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2026	0.8	0.8	0.0	0.8	0.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2027	0.8	0.9	0.0	0.7	0.7	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2028	0.8	0.9	0.1	0.7	0.7	0.0	0.3	0.3	0.0	0.0	0.0	0.0
2029	0.7	0.8	0.1	0.7	0.7	0.0	0.4	0.4	0.0	0.0	0.0	0.0
2030	0.8	0.9	0.1	0.7	0.7	0.0	0.4	0.4	0.0	0.0	0.0	0.0
2031	0.8	0.9	0.1	0.8	0.8	0.0	0.4	0.4	0.0	0.0	0.0	0.0
2032	1.3	1.4	0.1	0.8	0.8	0.0	0.3	0.3	0.0	0.0	0.0	0.0

**Table Error! No text of specified style in document.726 - Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	0.9	0.9	0.0
2023	0.2	0.2	0.0	0.0	0.0	0.0	0.1	0.1	0.0	2.4	2.4	0.0
2024	0.3	0.3	0.0	0.0	0.0	0.0	0.3	0.3	0.0	4.5	4.5	0.0
2025	0.4	0.4	0.0	0.0	0.0	0.0	0.3	0.3	0.0	5.4	5.4	0.0
2026	1.0	1.0	0.0	0.0	0.0	0.0	0.5	0.5	0.0	7.3	7.3	0.0
2027	1.0	1.1	0.1	0.0	0.0	0.0	0.5	0.5	0.0	7.3	8.2	0.9
2028	1.0	1.1	0.1	0.0	0.0	0.0	0.8	0.8	0.0	7.8	9.0	1.2
2029	1.1	1.2	0.1	0.0	0.0	0.0	0.7	0.7	0.0	8.5	9.8	1.3
2030	2.1	2.1	0.0	0.0	0.0	0.0	0.6	0.6	0.0	9.2	10.4	1.2
2031	2.1	2.1	0.0	0.0	0.0	0.0	0.7	0.6	0.0	9.4	10.6	1.2
2032	1.9	1.9	0.0	0.0	0.0	0.0	0.6	0.6	0.0	10.4	11.7	1.3



**Table Error! No text of specified style in document.727 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.1	0.1	0.0	0.3	0.3	0.0	0.0	0.0	0.0
2023	0.1	0.1	0.0	3.0	3.0	0.0	0.6	0.6	0.0	0.4	0.4	0.0
2024	0.1	0.1	0.0	4.1	4.1	0.0	2.7	2.7	0.0	0.5	0.5	0.0
2025	0.2	0.2	0.0	4.2	4.2	0.0	3.4	3.4	0.0	0.6	0.6	0.0
2026	0.3	0.3	0.0	4.8	4.8	0.0	3.7	3.7	0.0	1.1	1.1	0.0
2027	0.3	0.3	0.0	5.5	6.2	0.7	3.8	5.1	1.4	2.7	2.6	0.0
2028	0.3	0.3	0.0	6.4	7.0	0.6	3.6	4.9	1.3	2.5	2.5	0.0
2029	0.2	0.3	0.1	6.5	7.1	0.6	3.3	4.5	1.2	2.2	2.2	0.0
2030	0.3	0.4	0.1	6.0	6.5	0.5	3.2	4.5	1.3	2.0	2.0	0.0
2031	0.2	0.4	0.2	5.5	6.0	0.5	5.0	6.2	1.2	2.0	2.0	0.0
2032	0.5	0.6	0.1	5.1	5.6	0.5	4.9	6.0	1.1	1.7	1.8	0.1

**Table Error! No text of specified style in document.728 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2024	0.1	0.1	0.0	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2025	0.2	0.2	0.0	0.1	0.1	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2026	0.5	0.5	0.0	0.5	0.5	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2027	0.6	0.6	0.0	0.5	0.5	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2028	1.3	1.3	0.0	0.4	0.4	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2029	1.2	1.2	0.0	0.6	0.8	0.2	0.1	0.1	0.0	0.0	0.0	0.0
2030	1.1	1.1	0.0	0.5	0.7	0.2	0.1	0.1	0.0	0.0	0.0	0.0
2031	1.4	1.5	0.1	0.6	0.9	0.2	0.1	0.2	0.1	0.0	0.0	0.0
2032	1.3	1.3	0.1	0.6	0.8	0.2	0.1	0.2	0.1	0.0	0.0	0.0

**Table Error! No text of specified style in document.729 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.0
2024	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
2025	0.0	0.0	0.0	0.1	0.1	0.0	0.1	0.1	0.0	0.1	0.1	0.0
2026	0.0	0.0	0.0	0.3	0.3	0.0	0.3	0.3	0.0	0.1	0.1	0.0
2027	0.0	0.0	0.0	0.4	1.2	0.8	0.5	0.5	0.0	0.1	0.1	0.0
2028	0.0	0.0	0.0	0.4	1.1	0.8	0.6	0.7	0.0	0.1	0.1	0.0
2029	0.0	0.0	0.0	0.6	1.3	0.7	0.6	0.6	0.0	0.1	0.1	0.0
2030	0.0	0.0	0.0	0.7	1.4	0.7	0.8	0.9	0.0	0.1	0.1	0.0
2031	0.0	0.0	0.0	0.7	1.3	0.6	0.8	0.8	0.0	0.2	0.1	-0.1
2032	0.0	0.0	0.0	0.6	1.2	0.6	0.7	0.7	0.0	0.2	0.1	-0.1

**Table Error! No text of specified style in document.730 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.5	0.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2023	1.0	1.0	0.0	2.2	2.2	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2024	1.1	1.1	0.0	2.8	2.8	0.0	0.2	0.2	0.0	0.0	0.0	0.0
2025	1.4	1.4	0.0	4.3	4.3	0.0	0.3	0.3	0.0	0.0	0.0	0.0
2026	1.5	1.5	0.0	4.3	4.3	0.0	1.1	1.1	0.0	0.0	0.0	0.0
2027	1.7	1.7	0.0	4.6	6.2	1.6	1.4	1.3	-0.1	0.0	0.0	0.0
2028	2.6	2.7	0.0	4.6	6.1	1.5	2.2	2.3	0.0	0.0	0.0	0.0
2029	2.6	2.6	0.0	5.6	6.8	1.3	2.0	2.1	0.0	0.0	0.0	0.0
2030	2.3	2.3	0.0	6.1	6.2	0.2	1.8	1.9	0.0	0.0	0.0	0.0
2031	2.1	2.2	0.0	5.6	5.8	0.1	1.7	1.7	0.1	0.0	0.0	0.0
2032	1.9	2.0	0.0	5.4	5.6	0.2	1.5	1.6	0.1	0.0	0.0	0.0

**Table Error! No text of specified style in document.731 - Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Regulatory Costs (\$b) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.0	1.1	1.1	0.0
2023	0.3	0.3	0.0	0.0	0.0	0.0	0.7	0.7	0.0	8.9	8.9	0.0
2024	0.7	0.7	0.0	0.0	0.0	0.0	0.7	0.7	0.0	13.5	13.5	0.0
2025	0.8	0.8	0.0	0.1	0.1	0.0	0.8	0.8	0.0	16.9	16.9	0.0
2026	2.4	2.4	0.0	0.1	0.1	0.0	0.9	0.9	0.0	22.2	22.2	0.0
2027	2.9	2.8	0.0	0.1	0.1	0.0	0.9	0.9	0.0	26.0	30.4	4.4
2028	2.8	2.8	0.0	0.1	0.1	0.0	0.9	0.9	0.0	29.1	33.5	4.4
2029	3.5	3.5	0.0	0.1	0.1	0.0	0.8	0.9	0.1	30.1	34.4	4.3
2030	3.5	3.5	0.0	0.3	0.3	0.0	1.2	1.5	0.3	30.1	33.5	3.4
2031	3.7	3.7	0.0	0.3	0.3	0.0	1.4	1.6	0.3	31.3	34.6	3.4
2032	3.8	3.7	-0.1	0.4	0.4	0.0	1.5	1.8	0.3	30.3	33.5	3.1

## Vehicle Price Increase

**Table Error! No text of specified style in document.732 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	138	138	0
2023	744	744	0
2024	1,201	1,201	0
2025	1,498	1,498	0
2026	1,934	1,934	0
2027	2,130	2,469	339
2028	2,330	2,687	356
2029	2,473	2,837	364
2030	2,576	2,881	305
2031	2,715	3,023	308
2032	2,734	3,032	298

**Table Error! No text of specified style in document.733 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	159	159	0
2023	435	435	0
2024	868	868	0
2025	1,096	1,096	0
2026	1,477	1,477	0
2027	1,468	1,650	183
2028	1,553	1,799	245
2029	1,728	2,005	276
2030	1,909	2,167	258
2031	1,967	2,229	262
2032	2,183	2,461	279

**Table Error! No text of specified style in document.734 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>			
Model Year	Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	125	125	0
2023	918	918	0
2024	1,376	1,376	0
2025	1,697	1,697	0
2026	2,152	2,152	0
2027	2,440	2,852	412
2028	2,691	3,097	406
2029	2,816	3,218	402
2030	2,884	3,209	325
2031	3,067	3,394	326
2032	2,995	3,301	306



**Table Error! No text of specified style in document.735 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	446	446	0	76	76	0	283	283	0	0	0	0
2023	491	491	0	1,737	1,737	0	355	355	0	461	461	0
2024	1,127	1,127	0	2,470	2,470	0	1,725	1,725	0	534	534	0
2025	1,547	1,547	0	2,526	2,526	0	2,106	2,106	0	734	734	0
2026	1,778	1,778	0	2,741	2,741	0	2,290	2,290	0	1,283	1,283	0
2027	1,634	1,634	0	3,064	3,479	415	2,215	3,080	864	2,318	2,364	47
2028	1,723	1,879	156	3,480	3,824	344	2,086	2,927	841	2,381	2,445	64
2029	1,626	2,049	423	3,549	3,897	348	2,223	2,993	770	2,265	2,326	61
2030	1,712	2,266	554	3,320	3,641	321	2,235	2,967	732	2,041	2,109	68
2031	1,621	2,315	694	3,115	3,414	299	3,207	3,955	748	2,019	2,084	65
2032	2,323	2,547	224	2,930	3,212	282	3,129	3,837	709	2,088	2,321	233

**Table Error! No text of specified style in document.736 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	499	499	0	0	0	0
2023	597	597	0	122	122	0	1,599	1,599	0	0	0	0
2024	592	592	0	579	579	0	2,118	2,118	0	0	0	0
2025	945	945	0	564	564	0	2,115	2,115	0	0	0	0
2026	1,544	1,544	0	1,289	1,289	0	2,069	2,069	0	-2,171	-2,171	0
2027	1,657	1,941	284	1,207	1,209	2	1,952	1,954	2	-2,499	-2,499	0
2028	2,396	2,878	482	1,125	1,127	2	1,807	1,810	3	-2,671	-2,671	0
2029	2,185	2,648	463	1,845	2,084	239	1,622	1,627	5	-2,960	-2,960	0
2030	2,022	2,456	433	1,721	2,091	371	1,756	1,806	50	-3,214	-3,214	0
2031	2,432	2,867	435	2,327	2,837	510	1,592	2,427	835	-3,343	-3,343	0
2032	2,746	3,238	492	2,572	3,026	454	1,813	2,769	956	-3,543	-3,543	0

**Table Error! No text of specified style in document.737 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	638	638	0	226	226	0
2023	0	0	0	736	736	0	853	853	0	261	261	0
2024	0	0	0	807	807	0	882	882	0	1,497	1,497	0
2025	0	0	0	880	880	0	1,354	1,354	0	1,625	1,625	0
2026	0	0	0	1,803	1,803	0	2,301	2,301	0	2,341	2,341	0
2027	0	0	0	2,184	6,052	3,867	2,671	2,730	60	2,164	2,164	1
2028	0	0	0	2,064	5,830	3,765	3,053	3,243	189	2,038	2,039	1
2029	0	0	0	3,484	8,402	4,918	2,749	3,024	275	1,887	1,888	1
2030	0	0	0	4,106	8,868	4,762	3,786	4,025	239	1,759	2,099	339
2031	0	0	0	3,858	8,371	4,513	3,643	3,950	307	2,681	2,049	-631
2032	-62	-62	0	3,555	7,815	4,260	3,448	3,726	278	2,476	1,923	-554

**Table Error! No text of specified style in document.738 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	34	34	0	465	465	0	0	0	0	0	0	0
2023	1,361	1,361	0	1,394	1,394	0	439	439	0	5	5	0
2024	1,605	1,605	0	2,031	2,031	0	450	450	0	9	9	0
2025	2,085	2,085	0	2,917	2,917	0	559	559	0	14	14	0
2026	2,231	2,231	0	2,892	2,892	0	1,585	1,585	0	15	15	0
2027	2,464	2,494	30	2,937	3,804	866	1,829	1,747	-82	15	15	0
2028	3,306	3,393	87	2,841	3,659	818	2,949	2,990	41	14	14	0
2029	3,204	3,292	87	3,421	4,102	680	2,845	2,882	37	14	14	0
2030	3,123	3,221	98	3,799	3,877	78	2,685	2,719	34	14	14	0
2031	2,943	3,062	119	3,666	3,740	75	2,463	2,527	64	14	14	0
2032	3,315	3,442	127	3,551	3,657	106	2,268	2,327	59	13	13	0

**Table Error! No text of specified style in document.739 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	295	295	0	138	138	0
2023	211	211	0	131	131	0	1,242	1,242	0	744	744	0
2024	412	412	0	166	166	0	1,483	1,483	0	1,201	1,201	0
2025	494	494	0	1,050	1,050	0	1,768	1,768	0	1,498	1,498	0
2026	1,398	1,398	0	1,085	1,085	0	2,078	2,078	0	1,934	1,934	0
2027	1,532	1,540	8	960	1,061	101	2,078	2,126	48	2,130	2,469	339
2028	1,492	1,526	34	878	978	100	2,451	2,517	66	2,330	2,687	356
2029	1,832	1,865	33	735	898	163	2,255	2,342	87	2,473	2,837	364
2030	2,256	2,265	8	2,219	2,352	133	2,829	3,305	476	2,576	2,881	305
2031	2,381	2,390	9	2,084	2,216	132	3,168	3,572	404	2,715	3,023	308
2032	2,343	2,303	-41	2,627	2,721	94	3,364	3,746	382	2,734	3,032	298

**Table Error! No text of specified style in document.740 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	446	446	0	76	76	0	283	283	0	0	0	0
2023	491	491	0	1,737	1,737	0	355	355	0	461	461	0
2024	1,127	1,127	0	2,470	2,470	0	1,725	1,725	0	534	534	0
2025	1,547	1,547	0	2,526	2,526	0	2,106	2,106	0	734	734	0
2026	1,778	1,778	0	2,741	2,741	0	2,290	2,290	0	1,283	1,283	0
2027	1,634	1,634	0	3,064	3,479	415	2,215	3,080	864	2,318	2,364	47
2028	1,723	1,879	156	3,480	3,824	344	2,086	2,927	841	2,381	2,445	64
2029	1,626	2,049	423	3,549	3,897	348	2,223	2,993	770	2,265	2,326	61
2030	1,712	2,266	554	3,320	3,641	321	2,235	2,967	732	2,041	2,109	68
2031	1,621	2,315	694	3,115	3,414	299	3,207	3,955	748	2,019	2,084	65
2032	2,323	2,547	224	2,930	3,212	282	3,129	3,837	709	2,088	2,321	233

**Table Error! No text of specified style in document.741 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	499	499	0	0	0	0
2023	597	597	0	122	122	0	1,599	1,599	0	0	0	0
2024	592	592	0	579	579	0	2,118	2,118	0	0	0	0
2025	945	945	0	564	564	0	2,115	2,115	0	0	0	0
2026	1,544	1,544	0	1,289	1,289	0	2,069	2,069	0	-2,171	-2,171	0
2027	1,657	1,941	284	1,207	1,209	2	1,952	1,954	2	-2,499	-2,499	0
2028	2,396	2,878	482	1,125	1,127	2	1,807	1,810	3	-2,671	-2,671	0
2029	2,185	2,648	463	1,845	2,084	239	1,622	1,627	5	-2,960	-2,960	0
2030	2,022	2,456	433	1,721	2,091	371	1,756	1,806	50	-3,214	-3,214	0
2031	2,432	2,867	435	2,327	2,837	510	1,592	2,427	835	-3,343	-3,343	0
2032	2,746	3,238	492	2,572	3,026	454	1,813	2,769	956	-3,543	-3,543	0

**Table Error! No text of specified style in document.742 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	638	638	0	226	226	0
2023	0	0	0	736	736	0	853	853	0	261	261	0
2024	0	0	0	807	807	0	882	882	0	1,497	1,497	0
2025	0	0	0	880	880	0	1,354	1,354	0	1,625	1,625	0
2026	0	0	0	1,803	1,803	0	2,301	2,301	0	2,341	2,341	0
2027	0	0	0	2,184	6,052	3,867	2,671	2,730	60	2,164	2,164	1
2028	0	0	0	2,064	5,830	3,765	3,053	3,243	189	2,038	2,039	1
2029	0	0	0	3,484	8,402	4,918	2,749	3,024	275	1,887	1,888	1
2030	0	0	0	4,106	8,868	4,762	3,786	4,025	239	1,759	2,099	339
2031	0	0	0	3,858	8,371	4,513	3,643	3,950	307	2,681	2,049	-631
2032	-62	-62	0	3,555	7,815	4,260	3,448	3,726	278	2,476	1,923	-554



**Table Error! No text of specified style in document.743 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	34	34	0	465	465	0	0	0	0	0	0	0
2023	1,361	1,361	0	1,394	1,394	0	439	439	0	5	5	0
2024	1,605	1,605	0	2,031	2,031	0	450	450	0	9	9	0
2025	2,085	2,085	0	2,917	2,917	0	559	559	0	14	14	0
2026	2,231	2,231	0	2,892	2,892	0	1,585	1,585	0	15	15	0
2027	2,464	2,494	30	2,937	3,804	866	1,829	1,747	-82	15	15	0
2028	3,306	3,393	87	2,841	3,659	818	2,949	2,990	41	14	14	0
2029	3,204	3,292	87	3,421	4,102	680	2,845	2,882	37	14	14	0
2030	3,123	3,221	98	3,799	3,877	78	2,685	2,719	34	14	14	0
2031	2,943	3,062	119	3,666	3,740	75	2,463	2,527	64	14	14	0
2032	3,315	3,442	127	3,551	3,657	106	2,268	2,327	59	13	13	0

**Table Error! No text of specified style in document.744 - Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	295	295	0	138	138	0
2023	211	211	0	131	131	0	1,242	1,242	0	744	744	0
2024	412	412	0	166	166	0	1,483	1,483	0	1,201	1,201	0
2025	494	494	0	1,050	1,050	0	1,768	1,768	0	1,498	1,498	0
2026	1,398	1,398	0	1,085	1,085	0	2,078	2,078	0	1,934	1,934	0
2027	1,532	1,540	8	960	1,061	101	2,078	2,126	48	2,130	2,469	339
2028	1,492	1,526	34	878	978	100	2,451	2,517	66	2,330	2,687	356
2029	1,832	1,865	33	735	898	163	2,255	2,342	87	2,473	2,837	364
2030	2,256	2,265	8	2,219	2,352	133	2,829	3,305	476	2,576	2,881	305
2031	2,381	2,390	9	2,084	2,216	132	3,168	3,572	404	2,715	3,023	308
2032	2,343	2,303	-41	2,627	2,721	94	3,364	3,746	382	2,734	3,032	298

**Table Error! No text of specified style in document.745 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	631	631	0	133	133	0	411	411	0	0	0	0
2023	622	622	0	74	74	0	280	280	0	335	335	0
2024	1,860	1,860	0	1,394	1,394	0	1,565	1,565	0	376	376	0
2025	1,886	1,886	0	1,611	1,611	0	1,694	1,694	0	706	706	0
2026	2,100	2,100	0	1,464	1,464	0	2,110	2,110	0	1,088	1,088	0
2027	1,904	1,904	0	1,573	2,028	455	1,919	2,925	1,006	1,206	1,306	100
2028	2,166	2,331	165	1,443	1,866	423	1,814	2,795	981	1,603	1,737	134
2029	2,052	2,420	367	1,283	1,670	386	3,116	3,955	839	1,682	1,809	127
2030	2,154	2,592	438	1,087	1,444	357	3,162	3,696	533	1,497	1,624	127
2031	1,986	2,501	515	990	1,323	333	3,290	3,986	697	1,427	1,548	121
2032	1,784	1,786	2	1,076	1,168	91	3,032	3,718	686	1,855	2,223	368

**Table Error! No text of specified style in document.746 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	1,162	1,162	0	0	0	0
2023	911	911	0	60	60	0	4,315	4,315	0	0	0	0
2024	897	897	0	872	872	0	4,072	4,072	0	0	0	0
2025	1,210	1,210	0	806	806	0	3,866	3,866	0	0	0	0
2026	1,845	1,845	0	989	989	0	3,704	3,704	0	-2,171	-2,171	0
2027	1,864	2,326	461	954	958	4	3,435	3,437	2	-2,499	-2,499	0
2028	1,813	2,645	831	886	890	4	3,183	3,187	5	-2,671	-2,671	0
2029	1,664	2,452	788	1,789	1,663	-126	2,857	2,866	9	-2,960	-2,960	0
2030	1,554	2,290	737	1,686	1,850	165	2,649	2,876	226	-3,214	-3,214	0
2031	1,541	2,173	633	2,457	2,683	225	2,465	2,665	200	-3,343	-3,343	0
2032	2,362	3,111	748	3,097	3,265	168	2,234	2,466	232	-3,543	-3,543	0

**Table Error! No text of specified style in document.747 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	904	904	0	345	345	0
2023	0	0	0	858	858	0	1,375	1,375	0	312	312	0
2024	0	0	0	813	813	0	1,410	1,410	0	1,563	1,563	0
2025	0	0	0	948	948	0	2,028	2,028	0	1,722	1,722	0
2026	0	0	0	1,494	1,494	0	2,521	2,521	0	2,480	2,480	0
2027	0	0	0	1,667	1,761	94	2,107	2,349	242	2,276	2,276	1
2028	0	0	0	1,551	1,734	184	1,940	2,161	221	2,140	2,141	1
2029	0	0	0	3,865	14,537	10,672	1,695	2,015	320	1,964	1,964	1
2030	0	0	0	3,549	13,872	10,323	1,823	2,128	305	1,814	2,150	335
2031	0	0	0	3,302	13,064	9,761	1,965	2,445	479	1,633	1,633	1
2032	-62	-62	0	2,993	12,188	9,195	2,056	2,495	438	1,502	1,559	57

**Table Error! No text of specified style in document.748 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	31	31	0	1,194	1,194	0	0	0	0	0	0	0
2023	743	743	0	881	881	0	1,014	1,014	0	0	0	0
2024	932	932	0	3,228	3,228	0	976	976	0	0	0	0
2025	1,267	1,267	0	3,779	3,779	0	1,763	1,763	0	0	0	0
2026	1,473	1,473	0	3,972	3,972	0	2,085	2,085	0	0	0	0
2027	1,572	1,631	59	3,705	3,706	1	2,009	1,974	-35	0	0	0
2028	1,475	1,603	128	3,501	3,568	67	2,914	2,915	0	0	0	0
2029	1,367	1,488	121	3,502	3,508	6	3,732	3,732	0	0	0	0
2030	1,563	1,705	142	3,592	3,569	-23	3,809	3,810	0	0	0	0
2031	1,523	1,702	179	4,088	4,048	-41	3,507	3,502	-4	0	0	0
2032	2,566	2,761	196	4,053	4,142	90	3,259	3,253	-6	0	0	0

**Table Error! No text of specified style in document.749 - Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Average Vehicle Price Increase (dollars) for Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	424	424	0	159	159	0
2023	206	206	0	45	45	0	529	529	0	435	435	0
2024	330	330	0	45	45	0	1,100	1,100	0	868	868	0
2025	486	486	0	399	399	0	1,313	1,313	0	1,096	1,096	0
2026	1,159	1,159	0	551	551	0	1,957	1,957	0	1,477	1,477	0
2027	1,161	1,220	59	486	486	0	2,093	2,093	0	1,468	1,650	183
2028	1,111	1,208	96	443	443	0	3,299	3,299	0	1,553	1,799	245
2029	1,271	1,363	92	262	262	0	2,965	2,974	8	1,728	2,005	276
2030	2,438	2,464	25	317	371	53	2,686	2,694	8	1,909	2,167	258
2031	2,422	2,447	25	356	409	52	2,923	2,842	-81	1,967	2,229	262
2032	2,232	2,237	4	287	378	91	2,618	2,541	-78	2,183	2,461	279

**Table Error! No text of specified style in document.750 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	BMW			Ford			GM			Honda		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	226	226	0	69	69	0	240	240	0	0	0	0
2023	349	349	0	1,938	1,938	0	377	377	0	598	598	0
2024	382	382	0	2,592	2,592	0	1,771	1,771	0	692	692	0
2025	1,225	1,225	0	2,622	2,622	0	2,215	2,215	0	761	761	0
2026	1,480	1,480	0	2,872	2,872	0	2,336	2,336	0	1,461	1,461	0
2027	1,389	1,389	0	3,214	3,625	411	2,290	3,119	829	3,314	3,314	0
2028	1,327	1,476	149	3,682	4,018	336	2,154	2,960	806	3,072	3,071	0
2029	1,247	1,722	474	3,772	4,116	343	2,002	2,756	754	2,779	2,779	0
2030	1,317	1,976	659	3,542	3,858	316	2,004	2,786	782	2,523	2,536	13
2031	1,290	2,147	857	3,330	3,624	294	3,186	3,947	761	2,551	2,563	12
2032	2,816	3,238	423	3,118	3,418	301	3,153	3,868	715	2,298	2,409	111



**Table Error! No text of specified style in document.751 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Hyundai Kia-H			Hyundai Kia-K			JLR			Karma		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	481	481	0	0	0	0
2023	142	142	0	200	200	0	1,530	1,530	0	0	0	0
2024	181	181	0	233	233	0	2,072	2,072	0	0	0	0
2025	610	610	0	294	294	0	2,076	2,076	0	0	0	0
2026	1,176	1,176	0	1,611	1,611	0	2,033	2,033	0	0	0	0
2027	1,408	1,478	70	1,475	1,475	0	1,921	1,922	2	0	0	0
2028	3,090	3,154	65	1,374	1,374	0	1,778	1,781	3	0	0	0
2029	2,802	2,879	77	1,903	2,518	615	1,597	1,601	5	0	0	0
2030	2,580	2,651	71	1,757	2,341	584	1,737	1,784	47	0	0	0
2031	3,509	3,698	190	2,189	2,999	810	1,573	2,422	848	0	0	0
2032	3,212	3,392	180	2,013	2,772	760	1,804	2,775	972	0	0	0

**Table Error! No text of specified style in document.752 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Lucid			Mazda			Mercedes-Benz			Mitsubishi		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	371	371	0	74	74	0
2023	0	0	0	715	715	0	374	374	0	201	201	0
2024	0	0	0	806	806	0	429	429	0	1,425	1,425	0
2025	0	0	0	870	870	0	811	811	0	1,525	1,525	0
2026	0	0	0	1,847	1,847	0	2,130	2,130	0	2,202	2,202	0
2027	0	0	0	2,257	6,652	4,396	3,101	3,022	-79	2,054	2,055	1
2028	0	0	0	2,136	6,395	4,260	3,894	4,058	163	1,940	1,941	1
2029	0	0	0	3,431	7,563	4,132	3,541	3,777	237	1,813	1,814	2
2030	0	0	0	4,183	8,180	3,997	5,267	5,447	180	1,706	2,050	344
2031	0	0	0	3,936	7,716	3,780	4,929	5,096	167	3,708	2,455	-1,253
2032	0	0	0	3,634	7,201	3,567	4,519	4,670	151	3,436	2,279	-1,158

**Table Error! No text of specified style in document.753 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Nissan			Stellantis			Subaru			Tesla		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	39	39	0	347	347	0	0	0	0	0	0	0
2023	2,165	2,165	0	1,470	1,470	0	338	338	0	100	100	0
2024	2,421	2,421	0	1,865	1,865	0	363	363	0	177	177	0
2025	3,017	3,017	0	2,805	2,805	0	372	372	0	252	252	0
2026	3,068	3,068	0	2,756	2,756	0	1,510	1,510	0	248	248	0
2027	3,428	3,428	0	2,842	3,816	973	1,803	1,714	-89	244	244	0
2028	5,266	5,304	38	2,760	3,670	909	2,955	3,001	47	240	240	0
2029	5,160	5,200	40	3,411	4,173	762	2,716	2,759	43	237	237	0
2030	4,791	4,833	41	3,824	3,914	90	2,521	2,561	40	233	233	0
2031	4,486	4,530	44	3,613	3,702	89	2,308	2,383	75	229	229	0
2032	4,133	4,180	48	3,489	3,597	109	2,121	2,190	69	226	226	0

**Table Error! No text of specified style in document.754 - Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Average Vehicle Price Increase (dollars) for Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4												
Model Year	Toyota			Volvo			VWA			Total		
	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference	No Action Alternative (Baseline)	Alternative PC2LT4	Difference
2022	0	0	0	0	0	0	202	202	0	125	125	0
2023	214	214	0	170	170	0	1,709	1,709	0	918	918	0
2024	463	463	0	215	215	0	1,718	1,718	0	1,376	1,376	0
2025	499	499	0	1,300	1,300	0	2,030	2,030	0	1,697	1,697	0
2026	1,532	1,532	0	1,285	1,285	0	2,146	2,146	0	2,152	2,152	0
2027	1,735	1,715	-20	1,134	1,271	137	2,069	2,143	75	2,440	2,852	412
2028	1,697	1,698	0	1,035	1,171	136	1,994	2,096	103	2,691	3,097	406
2029	2,134	2,134	0	905	1,125	220	1,874	2,005	131	2,816	3,218	402
2030	2,158	2,158	0	2,906	3,064	157	2,906	3,631	725	2,884	3,209	325
2031	2,359	2,359	0	2,719	2,875	157	3,302	3,968	666	3,067	3,394	326
2032	2,405	2,339	-66	3,489	3,580	91	3,773	4,405	631	2,995	3,301	306

## Technology Costs, Price Increase, Sales, and Labor Utilization

**Table Error! No text of specified style in document.755 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	138	138	0	0%	14.4	14.4	0.0	0.0%	889	889	0.0	0.0%
2023	9	9	0	0%	744	744	0	0%	15.2	15.2	0.0	0.0%	959	959	0.0	0.0%
2024	15	15	0	0%	1,201	1,201	0	0%	14.9	14.9	0.0	0.0%	955	955	0.0	0.0%
2025	19	19	0	0%	1,498	1,498	0	0%	14.9	14.9	0.0	0.0%	962	962	0.0	0.0%
2026	26	26	0	0%	1,934	1,934	0	0%	15.2	15.2	0.0	0.0%	997	997	0.0	0.0%
2027	30	35	5	18%	2,130	2,469	339	16%	15.7	15.6	0.0	-0.1%	1,032	1,039	7.0	0.7%
2028	33	39	6	17%	2,330	2,687	356	15%	15.8	15.8	0.0	-0.1%	1,045	1,053	7.7	0.7%
2029	35	41	6	16%	2,473	2,837	364	15%	15.6	15.6	0.0	-0.1%	1,035	1,043	7.3	0.7%
2030	36	40	4	12%	2,576	2,881	305	12%	15.3	15.2	0.0	-0.1%	1,015	1,019	4.6	0.5%
2031	38	42	4	11%	2,715	3,023	308	11%	15.0	15.0	0.0	-0.1%	1,000	1,004	4.3	0.4%
2032	38	42	4	12%	2,734	3,032	298	11%	14.9	14.9	0.0	-0.1%	994	998	4.2	0.4%

**Table Error! No text of specified style in document.756 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Passenger Car Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	159	159	0	0%	5.5	5.5	0.0	0.0%	301	301	0.0	0.0%
2023	2	2	0	0%	435	435	0	0%	5.5	5.5	0.0	0.0%	303	303	0.0	0.0%
2024	4	4	0	0%	868	868	0	0%	5.1	5.1	0.0	0.0%	288	288	0.0	0.0%
2025	5	5	0	0%	1,096	1,096	0	0%	4.9	4.9	0.0	0.0%	277	277	0.0	0.0%
2026	7	7	0	0%	1,477	1,477	0	0%	4.9	4.9	0.0	0.0%	280	280	0.0	0.0%
2027	7	8	1	14%	1,468	1,650	183	12%	5.0	5.0	0.0	-0.1%	284	284	0.4	0.1%
2028	7	8	1	16%	1,553	1,799	245	16%	5.0	5.0	0.0	-0.3%	285	285	0.0	0.0%
2029	8	9	1	16%	1,728	2,005	276	16%	4.9	4.9	0.0	-0.5%	281	280	-0.7	-0.2%
2030	9	10	1	13%	1,909	2,167	258	14%	4.8	4.8	0.0	-0.5%	278	277	-0.9	-0.3%
2031	9	10	1	12%	1,967	2,229	262	13%	4.8	4.8	0.0	-0.5%	277	276	-0.9	-0.3%
2032	10	11	1	13%	2,183	2,461	279	13%	4.8	4.8	0.0	-0.4%	277	277	-0.2	-0.1%

**Table Error! No text of specified style in document.757 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Total) Light Truck Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	125	125	0	0%	8.9	8.9	0.0	0.0%	588	588	0.0	0.0%
2023	7	7	0	0%	918	918	0	0%	9.7	9.7	0.0	0.0%	656	656	0.0	0.0%
2024	11	11	0	0%	1,376	1,376	0	0%	9.8	9.8	0.0	0.0%	667	667	0.0	0.0%
2025	14	14	0	0%	1,697	1,697	0	0%	10.0	10.0	0.0	0.0%	685	685	0.0	0.0%
2026	19	19	0	0%	2,152	2,152	0	0%	10.3	10.3	0.0	0.0%	718	718	0.0	0.0%
2027	23	27	4	19%	2,440	2,852	412	17%	10.7	10.7	0.0	-0.1%	748	755	6.7	0.9%
2028	26	30	4	17%	2,691	3,097	406	15%	10.8	10.8	0.0	0.0%	760	768	7.7	1.0%
2029	27	31	4	16%	2,816	3,218	402	14%	10.7	10.7	0.0	0.1%	754	762	8.0	1.1%
2030	27	31	3	12%	2,884	3,209	325	11%	10.4	10.4	0.0	0.1%	737	742	5.5	0.7%
2031	29	32	3	11%	3,067	3,394	326	11%	10.2	10.2	0.0	0.1%	723	728	5.2	0.7%
2032	28	31	3	11%	2,995	3,301	306	10%	10.1	10.1	0.0	0.1%	717	721	4.4	0.6%

**Table Error! No text of specified style in document.758 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (BMW) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (BMW) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	446	446	0	0%	0.4	0.4	0.0	0.0%	17	17	0.0	0.0%
2023	0	0	0	0%	491	491	0	0%	0.4	0.4	0.0	0.0%	18	18	0.0	0.0%
2024	0	0	0	0%	1,127	1,127	0	0%	0.4	0.4	0.0	0.0%	18	18	0.0	0.0%
2025	0	0	0	0%	1,547	1,547	0	0%	0.4	0.4	0.0	0.0%	19	19	0.0	0.0%
2026	1	1	0	0%	1,778	1,778	0	0%	0.4	0.4	0.0	0.0%	19	19	0.0	0.0%
2027	1	1	0	0%	1,634	1,634	0	0%	0.4	0.4	0.0	-0.1%	20	20	0.0	-0.1%
2028	1	1	0	0%	1,723	1,879	156	9%	0.4	0.4	0.0	-0.1%	20	20	0.0	0.0%
2029	1	1	0	2%	1,626	2,049	423	26%	0.4	0.4	0.0	-0.2%	20	20	0.0	0.1%
2030	1	1	0	2%	1,712	2,266	554	32%	0.4	0.4	0.0	-0.2%	19	19	0.0	0.1%
2031	1	1	0	2%	1,621	2,315	694	43%	0.4	0.4	0.0	-0.2%	19	19	0.0	0.1%
2032	1	1	0	10%	2,323	2,547	224	10%	0.4	0.4	0.0	-0.2%	19	19	0.1	0.6%



**Table Error! No text of specified style in document.759 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Ford) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Ford) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	76	76	0	0%	1.6	1.6	0.0	0.0%	146	146	0.0	0.0%
2023	3	3	0	0%	1,737	1,737	0	0%	1.8	1.8	0.0	0.0%	163	163	0.0	0.0%
2024	4	4	0	0%	2,470	2,470	0	0%	1.8	1.8	0.0	0.0%	165	165	0.0	0.0%
2025	4	4	0	0%	2,526	2,526	0	0%	1.8	1.8	0.0	0.0%	167	167	0.0	0.0%
2026	5	5	0	0%	2,741	2,741	0	0%	1.8	1.8	0.0	0.0%	173	173	0.0	0.0%
2027	5	6	1	15%	3,064	3,479	415	14%	1.9	1.9	0.0	-0.1%	180	181	1.1	0.6%
2028	6	7	1	11%	3,480	3,824	344	10%	1.9	1.9	0.0	0.0%	183	184	1.1	0.6%
2029	6	7	1	11%	3,549	3,897	348	10%	1.9	1.9	0.0	0.1%	181	182	1.2	0.7%
2030	6	6	1	11%	3,320	3,641	321	10%	1.9	1.9	0.0	0.1%	176	177	1.1	0.6%
2031	5	6	1	10%	3,115	3,414	299	10%	1.8	1.8	0.0	0.1%	172	173	1.0	0.6%
2032	5	5	1	10%	2,930	3,212	282	10%	1.8	1.8	0.0	0.0%	170	171	0.9	0.5%

**Table Error! No text of specified style in document.760 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (GM) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (GM) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	283	283	0	0%	1.8	1.8	0.0	0.0%	125	125	0.0	0.0%
2023	0	0	0	0%	355	355	0	0%	2.0	2.0	0.0	0.0%	135	135	0.0	0.0%
2024	3	3	0	0%	1,725	1,725	0	0%	1.9	1.9	0.0	0.0%	139	139	0.0	0.0%
2025	4	4	0	0%	2,106	2,106	0	0%	1.9	1.9	0.0	0.0%	141	141	0.0	0.0%
2026	4	4	0	0%	2,290	2,290	0	0%	2.0	2.0	0.0	0.0%	146	146	0.0	0.0%
2027	4	6	2	44%	2,215	3,080	864	39%	2.1	2.1	0.0	-0.1%	150	152	2.2	1.5%
2028	4	6	2	45%	2,086	2,927	841	40%	2.1	2.1	0.0	0.0%	152	154	2.3	1.5%
2029	4	6	2	39%	2,223	2,993	770	35%	2.1	2.1	0.0	0.0%	150	152	2.2	1.5%
2030	4	5	1	37%	2,235	2,967	732	33%	2.0	2.0	0.0	0.0%	146	149	2.2	1.5%
2031	6	7	1	25%	3,207	3,955	748	23%	2.0	2.0	0.0	0.0%	146	149	2.1	1.4%
2032	6	7	1	24%	3,129	3,837	709	23%	2.0	2.0	0.0	0.0%	146	147	1.9	1.3%

**Table Error! No text of specified style in document.761 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Honda) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Honda) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	1.5	1.5	0.0	0.0%	130	130	0.0	0.0%
2023	0	0	0	0%	461	461	0	0%	1.5	1.5	0.0	0.0%	138	138	0.0	0.0%
2024	0	0	0	0%	534	534	0	0%	1.5	1.5	0.0	0.0%	135	135	0.0	0.0%
2025	1	1	0	0%	734	734	0	0%	1.5	1.5	0.0	0.0%	134	134	0.0	0.0%
2026	2	2	0	0%	1,283	1,283	0	0%	1.5	1.5	0.0	0.0%	139	139	0.0	0.0%
2027	3	3	0	2%	2,318	2,364	47	2%	1.5	1.5	0.0	-0.1%	146	147	0.0	0.0%
2028	3	3	0	3%	2,381	2,445	64	3%	1.5	1.5	0.0	-0.1%	148	148	0.1	0.1%
2029	3	3	0	3%	2,265	2,326	61	3%	1.5	1.5	0.0	-0.2%	145	145	0.0	0.0%
2030	3	3	0	4%	2,041	2,109	68	3%	1.5	1.5	0.0	-0.2%	141	141	0.1	0.0%
2031	3	3	0	3%	2,019	2,084	65	3%	1.5	1.5	0.0	-0.2%	139	139	0.0	0.0%
2032	3	3	0	12%	2,088	2,321	233	11%	1.4	1.4	0.0	-0.2%	138	139	0.7	0.5%

**Table Error! No text of specified style in document.762 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Hyundai Kia-H) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Hyundai Kia-H) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.9	0.9	0.0	0.0%	24	24	0.0	0.0%
2023	1	1	0	0%	597	597	0	0%	0.9	0.9	0.0	0.0%	25	25	0.0	0.0%
2024	1	1	0	0%	592	592	0	0%	0.9	0.9	0.0	0.0%	25	25	0.0	0.0%
2025	1	1	0	0%	945	945	0	0%	0.9	0.9	0.0	0.0%	25	25	0.0	0.0%
2026	1	1	0	0%	1,544	1,544	0	0%	0.9	0.9	0.0	0.0%	25	25	0.0	0.0%
2027	1	2	0	19%	1,657	1,941	284	17%	0.9	0.9	0.0	-0.1%	26	26	0.0	-0.1%
2028	2	3	0	21%	2,396	2,878	482	20%	0.9	0.9	0.0	-0.1%	26	26	0.0	0.0%
2029	2	2	0	23%	2,185	2,648	463	21%	0.9	0.9	0.0	-0.2%	26	26	0.0	0.0%
2030	2	2	0	23%	2,022	2,456	433	21%	0.9	0.9	0.0	-0.2%	25	25	0.0	0.0%
2031	2	2	0	19%	2,432	2,867	435	18%	0.9	0.9	0.0	-0.2%	26	26	0.0	0.1%
2032	2	3	0	19%	2,746	3,238	492	18%	0.9	0.9	0.0	-0.2%	26	26	0.1	0.4%

**Table Error! No text of specified style in document.763 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Hyundai Kia-K) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Hyundai Kia-K) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.6	0.6	0.0	0.0%	29	29	0.0	0.0%
2023	0	0	0	0%	122	122	0	0%	0.6	0.6	0.0	0.0%	30	30	0.0	0.0%
2024	0	0	0	0%	579	579	0	0%	0.6	0.6	0.0	0.0%	30	30	0.0	0.0%
2025	0	0	0	0%	564	564	0	0%	0.6	0.6	0.0	0.0%	30	30	0.0	0.0%
2026	1	1	0	0%	1,289	1,289	0	0%	0.6	0.6	0.0	0.0%	31	31	0.0	0.0%
2027	1	1	0	0%	1,207	1,209	2	0%	0.6	0.6	0.0	-0.1%	32	32	0.0	-0.1%
2028	1	1	0	0%	1,125	1,127	2	0%	0.6	0.6	0.0	-0.1%	32	32	0.0	-0.1%
2029	1	1	0	13%	1,845	2,084	239	13%	0.6	0.6	0.0	-0.2%	32	32	-0.1	-0.3%
2030	1	1	0	22%	1,721	2,091	371	22%	0.6	0.6	0.0	-0.2%	31	31	-0.1	-0.2%
2031	1	2	0	22%	2,327	2,837	510	22%	0.6	0.6	0.0	-0.2%	31	31	0.0	0.0%
2032	2	2	0	18%	2,572	3,026	454	18%	0.6	0.6	0.0	-0.2%	31	31	0.0	0.0%

**Table Error! No text of specified style in document.764 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (JLR) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (JLR) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	499	499	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2023	0	0	0	0%	1,599	1,599	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2024	0	0	0	0%	2,118	2,118	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2025	0	0	0	0%	2,115	2,115	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2026	0	0	0	0%	2,069	2,069	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2027	0	0	0	0%	1,952	1,954	2	0%	0.1	0.1	0.0	-0.1%	1	1	0.0	-0.1%
2028	0	0	0	0%	1,807	1,810	3	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2029	0	0	0	0%	1,622	1,627	5	0%	0.1	0.1	0.0	0.1%	1	1	0.0	0.1%
2030	0	0	0	1%	1,756	1,806	50	3%	0.1	0.1	0.0	0.1%	1	1	0.0	0.1%
2031	0	0	0	60%	1,592	2,427	835	52%	0.1	0.1	0.0	0.1%	1	1	0.0	0.1%
2032	0	0	0	59%	1,813	2,769	956	53%	0.1	0.1	0.0	0.1%	1	1	0.0	0.2%

**Table Error! No text of specified style in document.765 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Karma) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Karma) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2023	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2024	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2025	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2026	0	0	0	0%	-2,171	-2,171	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2027	0	0	0	0%	-2,499	-2,499	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2028	0	0	0	0%	-2,671	-2,671	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2029	0	0	0	0%	-2,960	-2,960	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2030	0	0	0	0%	-3,214	-3,214	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2031	0	0	0	0%	-3,343	-3,343	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2032	0	0	0	0%	-3,543	-3,543	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%

**Table Error! No text of specified style in document.766 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Lucid) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Lucid) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2023	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2024	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2025	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2026	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	0.0%	0	0	0.0	0.0%
2027	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	-0.1%	0	0	0.0	-0.1%
2028	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	-0.3%	0	0	0.0	-0.3%
2029	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	-0.6%	0	0	0.0	-0.6%
2030	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	-0.6%	0	0	0.0	-0.6%
2031	0	0	0	0%	0	0	0	0%	0.0	0.0	0.0	-0.7%	0	0	0.0	-0.7%
2032	0	0	0	0%	-62	-62	0	0%	0.0	0.0	0.0	-0.5%	0	0	0.0	-0.5%



**Table Error! No text of specified style in document.767 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mazda) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mazda) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.2	0.2	0.0	0.0%	2	2	0.0	0.0%
2023	0	0	0	0%	736	736	0	0%	0.2	0.2	0.0	0.0%	2	2	0.0	0.0%
2024	0	0	0	0%	807	807	0	0%	0.2	0.2	0.0	0.0%	2	2	0.0	0.0%
2025	0	0	0	0%	880	880	0	0%	0.2	0.2	0.0	0.0%	2	2	0.0	0.0%
2026	0	0	0	0%	1,803	1,803	0	0%	0.2	0.2	0.0	0.0%	2	2	0.0	0.0%
2027	0	1	1	205%	2,184	6,052	3,867	177%	0.2	0.2	0.0	-0.1%	3	3	0.1	5.8%
2028	0	1	1	213%	2,064	5,830	3,765	182%	0.2	0.2	0.0	0.0%	3	3	0.1	5.7%
2029	1	2	1	154%	3,484	8,402	4,918	141%	0.2	0.2	0.0	0.0%	3	3	0.2	7.5%
2030	1	2	1	124%	4,106	8,868	4,762	116%	0.2	0.2	0.0	0.0%	2	3	0.2	7.3%
2031	1	2	1	126%	3,858	8,371	4,513	117%	0.2	0.2	0.0	0.0%	2	3	0.2	6.9%
2032	1	1	1	129%	3,555	7,815	4,260	120%	0.2	0.2	0.0	0.0%	2	3	0.2	6.5%

**Table Error! No text of specified style in document.768 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mercedes-Benz) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mercedes-Benz) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	638	638	0	0%	0.3	0.3	0.0	0.0%	9	9	0.0	0.0%
2023	0	0	0	0%	853	853	0	0%	0.3	0.3	0.0	0.0%	10	10	0.0	0.0%
2024	0	0	0	0%	882	882	0	0%	0.3	0.3	0.0	0.0%	10	10	0.0	0.0%
2025	0	0	0	0%	1,354	1,354	0	0%	0.3	0.3	0.0	0.0%	10	10	0.0	0.0%
2026	0	0	0	0%	2,301	2,301	0	0%	0.3	0.3	0.0	0.0%	10	10	0.0	0.0%
2027	1	1	0	2%	2,671	2,730	60	2%	0.3	0.3	0.0	-0.1%	11	11	0.0	-0.1%
2028	1	1	0	7%	3,053	3,243	189	6%	0.3	0.3	0.0	-0.1%	11	11	0.1	0.9%
2029	1	1	0	12%	2,749	3,024	275	10%	0.3	0.3	0.0	-0.1%	11	11	0.1	1.0%
2030	1	1	0	7%	3,786	4,025	239	6%	0.3	0.3	0.0	-0.1%	11	11	0.1	0.9%
2031	1	1	0	9%	3,643	3,950	307	8%	0.3	0.3	0.0	-0.2%	10	10	0.1	0.9%
2032	1	1	0	9%	3,448	3,726	278	8%	0.3	0.3	0.0	-0.1%	10	10	0.1	0.8%

**Table Error! No text of specified style in document.769 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mitsubishi) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Mitsubishi) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	226	226	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2023	0	0	0	0%	261	261	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2024	0	0	0	0%	1,497	1,497	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2025	0	0	0	0%	1,625	1,625	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2026	0	0	0	0%	2,341	2,341	0	0%	0.1	0.1	0.0	0.0%	1	1	0.0	0.0%
2027	0	0	0	0%	2,164	2,164	1	0%	0.1	0.1	0.0	-0.1%	1	1	0.0	-0.1%
2028	0	0	0	0%	2,038	2,039	1	0%	0.1	0.1	0.0	-0.1%	1	1	0.0	-0.1%
2029	0	0	0	0%	1,887	1,888	1	0%	0.1	0.1	0.0	-0.2%	1	1	0.0	-0.2%
2030	0	0	0	0%	1,759	2,099	339	19%	0.1	0.1	0.0	-0.2%	1	1	0.0	-0.2%
2031	0	0	0	-24%	2,681	2,049	-631	-24%	0.1	0.1	0.0	-0.2%	1	1	0.0	-0.8%
2032	0	0	0	-23%	2,476	1,923	-554	-22%	0.1	0.1	0.0	-0.2%	1	1	0.0	-0.7%

**Table Error! No text of specified style in document.770 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Nissan) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Nissan) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	34	34	0	0%	1.0	1.0	0.0	0.0%	59	59	0.0	0.0%
2023	1	1	0	0%	1,361	1,361	0	0%	1.0	1.0	0.0	0.0%	62	62	0.0	0.0%
2024	2	2	0	0%	1,605	1,605	0	0%	1.0	1.0	0.0	0.0%	61	61	0.0	0.0%
2025	2	2	0	0%	2,085	2,085	0	0%	1.0	1.0	0.0	0.0%	61	61	0.0	0.0%
2026	2	2	0	0%	2,231	2,231	0	0%	1.0	1.0	0.0	0.0%	62	62	0.0	0.0%
2027	2	2	0	1%	2,464	2,494	30	1%	1.0	1.0	0.0	-0.1%	64	64	-0.1	-0.1%
2028	3	3	0	3%	3,306	3,393	87	3%	1.0	1.0	0.0	-0.1%	65	65	0.0	0.0%
2029	3	3	0	3%	3,204	3,292	87	3%	1.0	1.0	0.0	-0.2%	65	65	0.0	0.0%
2030	3	3	0	3%	3,123	3,221	98	3%	1.0	1.0	0.0	-0.2%	63	63	0.0	0.0%
2031	3	3	0	4%	2,943	3,062	119	4%	1.0	1.0	0.0	-0.2%	62	62	0.0	0.0%
2032	3	3	0	4%	3,315	3,442	127	4%	1.0	1.0	0.0	-0.2%	62	62	0.0	0.1%

**Table Error! No text of specified style in document.771 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Stellantis) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Stellantis) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	465	465	0	0%	1.6	1.6	0.0	0.0%	95	95	0.0	0.0%
2023	2	2	0	0%	1,394	1,394	0	0%	1.7	1.7	0.0	0.0%	109	109	0.0	0.0%
2024	3	3	0	0%	2,031	2,031	0	0%	1.7	1.7	0.0	0.0%	112	112	0.0	0.0%
2025	4	4	0	0%	2,917	2,917	0	0%	1.7	1.7	0.0	0.0%	117	117	0.0	0.0%
2026	5	5	0	0%	2,892	2,892	0	0%	1.8	1.8	0.0	0.0%	121	121	0.0	0.0%
2027	5	6	2	33%	2,937	3,804	866	29%	1.8	1.8	0.0	-0.1%	125	129	4.0	3.2%
2028	5	6	2	32%	2,841	3,659	818	29%	1.9	1.9	0.0	0.0%	126	130	4.0	3.2%
2029	6	7	1	22%	3,421	4,102	680	20%	1.8	1.8	0.0	0.0%	126	130	3.8	3.0%
2030	6	6	0	2%	3,799	3,877	78	2%	1.8	1.8	0.0	0.1%	125	126	1.1	0.9%
2031	6	6	0	2%	3,666	3,740	75	2%	1.8	1.8	0.0	0.0%	122	123	1.0	0.8%
2032	6	6	0	3%	3,551	3,657	106	3%	1.7	1.7	0.0	0.0%	120	121	0.9	0.7%

**Table Error! No text of specified style in document.772 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Subaru) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Subaru) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.7	0.7	0.0	0.0%	39	39	0.0	0.0%
2023	0	0	0	0%	439	439	0	0%	0.8	0.8	0.0	0.0%	42	42	0.0	0.0%
2024	0	0	0	0%	450	450	0	0%	0.8	0.8	0.0	0.0%	42	42	0.0	0.0%
2025	0	0	0	0%	559	559	0	0%	0.8	0.8	0.0	0.0%	42	42	0.0	0.0%
2026	1	1	0	0%	1,585	1,585	0	0%	0.8	0.8	0.0	0.0%	44	44	0.0	0.0%
2027	1	1	0	-5%	1,829	1,747	-82	-4%	0.9	0.9	0.0	-0.1%	46	46	-0.1	-0.3%
2028	2	2	0	1%	2,949	2,990	41	1%	0.9	0.9	0.0	0.0%	47	47	0.0	0.0%
2029	2	2	0	1%	2,845	2,882	37	1%	0.9	0.9	0.0	0.0%	46	46	0.0	0.0%
2030	2	2	0	1%	2,685	2,719	34	1%	0.8	0.8	0.0	0.0%	45	45	0.0	0.0%
2031	2	2	0	3%	2,463	2,527	64	3%	0.8	0.8	0.0	0.0%	44	44	0.0	0.1%
2032	2	2	0	3%	2,268	2,327	59	3%	0.8	0.8	0.0	0.0%	43	43	0.0	0.1%

**Table Error! No text of specified style in document.773 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Tesla) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Tesla) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.5	0.5	0.0	0.0%	59	59	0.0	0.0%
2023	0	0	0	0%	5	5	0	0%	0.5	0.5	0.0	0.0%	59	59	0.0	0.0%
2024	0	0	0	0%	9	9	0	0%	0.5	0.5	0.0	0.0%	56	56	0.0	0.0%
2025	0	0	0	0%	14	14	0	0%	0.5	0.5	0.0	0.0%	54	54	0.0	0.0%
2026	0	0	0	0%	15	15	0	0%	0.5	0.5	0.0	0.0%	54	54	0.0	0.0%
2027	0	0	0	0%	15	15	0	0%	0.5	0.5	0.0	-0.1%	55	54	0.0	-0.1%
2028	0	0	0	0%	14	14	0	0%	0.5	0.5	0.0	-0.3%	55	55	-0.1	-0.3%
2029	0	0	0	0%	14	14	0	1%	0.5	0.5	0.0	-0.5%	54	54	-0.2	-0.5%
2030	0	0	0	0%	14	14	0	1%	0.5	0.5	0.0	-0.5%	53	53	-0.2	-0.5%
2031	0	0	0	0%	14	14	0	1%	0.5	0.5	0.0	-0.5%	52	52	-0.3	-0.5%
2032	0	0	0	0%	13	13	0	0%	0.5	0.5	0.0	-0.4%	52	52	-0.2	-0.4%

**Table Error! No text of specified style in document.774 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Toyota) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Toyota) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	2.4	2.4	0.0	0.0%	144	144	0.0	0.0%
2023	0	0	0	0%	211	211	0	0%	2.5	2.5	0.0	0.0%	151	151	0.0	0.0%
2024	1	1	0	0%	412	412	0	0%	2.4	2.4	0.0	0.0%	148	148	0.0	0.0%
2025	1	1	0	0%	494	494	0	0%	2.4	2.4	0.0	0.0%	147	147	0.0	0.0%
2026	3	3	0	0%	1,398	1,398	0	0%	2.5	2.5	0.0	0.0%	157	157	0.0	0.0%
2027	3	3	0	1%	1,532	1,540	8	1%	2.6	2.6	0.0	-0.1%	162	162	-0.2	-0.1%
2028	3	3	0	3%	1,492	1,526	34	2%	2.6	2.6	0.0	-0.1%	164	164	0.0	0.0%
2029	4	4	0	2%	1,832	1,865	33	2%	2.5	2.5	0.0	-0.1%	164	164	0.0	0.0%
2030	5	5	0	0%	2,256	2,265	8	0%	2.5	2.5	0.0	-0.1%	163	162	-0.2	-0.1%
2031	5	5	0	0%	2,381	2,390	9	0%	2.4	2.4	0.0	-0.1%	160	160	-0.2	-0.1%
2032	5	5	0	-2%	2,343	2,303	-41	-2%	2.4	2.4	0.0	-0.1%	160	159	-0.9	-0.5%



**Table Error! No text of specified style in document.775 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Volvo) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (Volvo) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4																
Model Year	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	0	0	0	0%	0.1	0.1	0.0	0.0%	3	3	0.0	0.0%
2023	0	0	0	0%	131	131	0	0%	0.1	0.1	0.0	0.0%	3	3	0.0	0.0%
2024	0	0	0	0%	166	166	0	0%	0.1	0.1	0.0	0.0%	3	3	0.0	0.0%
2025	0	0	0	0%	1,050	1,050	0	0%	0.1	0.1	0.0	0.0%	3	3	0.0	0.0%
2026	0	0	0	0%	1,085	1,085	0	0%	0.1	0.1	0.0	0.0%	3	3	0.0	0.0%
2027	0	0	0	13%	960	1,061	101	10%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.1%
2028	0	0	0	14%	878	978	100	11%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.1%
2029	0	0	0	28%	735	898	163	22%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.2%
2030	0	0	0	6%	2,219	2,352	133	6%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.1%
2031	0	0	0	7%	2,084	2,216	132	6%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.1%
2032	0	0	0	4%	2,627	2,721	94	4%	0.1	0.1	0.0	-0.1%	3	3	0.0	-0.1%

**Table Error! No text of specified style in document.776 - Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (VWA) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4**

<b>Comparison of Technology Costs, Average Price Increase, Sales, and Labor Utilization for Manufacturer (VWA) Total Fleet Between No Action Alternative (Baseline) and Alternative PC2LT4</b>																
	Technology Costs Increase (\$b)				Avg. Vehicle Price Increase (\$)				Annual Sales (million vehicles)				Labor (person years)			
	Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative		Standards		Change from Alternative	
Model Year	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent	No Action Alternative (Baseline)	Alternative PC2LT4	Absolute	Percent
2022	0	0	0	0%	295	295	0	0%	0.6	0.6	0.0	0.0%	8	8	0.0	0.0%
2023	1	1	0	0%	1,242	1,242	0	0%	0.6	0.6	0.0	0.0%	8	8	0.0	0.0%
2024	1	1	0	0%	1,483	1,483	0	0%	0.6	0.6	0.0	0.0%	8	8	0.0	0.0%
2025	1	1	0	0%	1,768	1,768	0	0%	0.6	0.6	0.0	0.0%	8	8	0.0	0.0%
2026	1	1	0	0%	2,078	2,078	0	0%	0.6	0.6	0.0	0.0%	8	8	0.0	0.0%
2027	1	1	0	3%	2,078	2,126	48	2%	0.7	0.7	0.0	-0.1%	8	8	0.0	0.6%
2028	1	2	0	3%	2,451	2,517	66	3%	0.7	0.7	0.0	-0.1%	8	9	0.1	0.6%
2029	1	1	0	4%	2,255	2,342	87	4%	0.7	0.7	0.0	-0.1%	8	8	0.1	0.9%
2030	2	2	0	18%	2,829	3,305	476	17%	0.6	0.6	0.0	-0.1%	8	9	0.4	4.7%
2031	2	2	0	13%	3,168	3,572	404	13%	0.6	0.6	0.0	-0.1%	8	8	0.4	4.4%
2032	2	2	0	12%	3,364	3,746	382	11%	0.6	0.6	0.0	-0.1%	8	8	0.3	4.1%

## CAFE Compliance Credits

**Table 777 - CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for No Action Alternative (Baseline)**

CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for No Action Alternative (Baseline)						
Manufacturer	2027	2028	2029	2030	2031	2032
BMW	0	15	22	32	34	63
Ford	33	94	153	150	147	158
GM	2	4	84	114	239	265
Honda	84	145	171	164	183	284
Hyundai Kia-H	32	87	84	81	135	192
Hyundai Kia-K	2	2	111	110	162	231
JLR	0	0	0	2	4	8
Karma	0	0	0	0	0	0
Lucid	3	3	3	3	3	3
Mazda	9	9	46	61	60	59
Mercedes-Benz	4	20	20	57	63	68
Mitsubishi	2	2	2	2	22	22
Nissan	3	69	83	112	114	203
Stellantis	0	3	101	155	172	198
Subaru	44	137	175	202	195	217
Tesla	344	345	339	333	330	329
Toyota	93	103	193	510	636	683
Volvo	2	2	2	22	23	45
VWA	4	49	48	85	128	160
<b>Total</b>	<b>660</b>	<b>1,089</b>	<b>1,638</b>	<b>2,196</b>	<b>2,650</b>	<b>3,187</b>

**Table 778 - CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC1LT3**

<b>CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC1LT3</b>						
Manufacturer	2027	2028	2029	2030	2031	2032
BMW	-4	8	11	18	16	44
Ford	53	82	117	91	66	48
GM	40	19	73	59	169	177
Honda	74	119	130	109	113	269
Hyundai Kia-H	28	81	71	60	106	160
Hyundai Kia-K	-4	-11	95	87	140	205
JLR	-1	-2	-4	-3	0	0
Karma	0	0	0	0	0	0
Lucid	3	3	3	3	2	3
Mazda	6	3	38	51	47	43
Mercedes-Benz	2	14	13	47	50	51
Mitsubishi	1	0	-2	-3	20	19
Nissan	-3	52	55	75	68	149
Stellantis	33	15	102	82	76	80
Subaru	28	116	142	156	141	149
Tesla	341	339	330	321	315	312
Toyota	69	54	115	399	498	500
Volvo	0	-1	-2	17	16	36
VWA	-2	36	28	68	104	132
<b>Total</b>	<b>662</b>	<b>927</b>	<b>1,316</b>	<b>1,637</b>	<b>1,946</b>	<b>2,376</b>

**Table 779 - CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC2LT4**

<b>CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC2LT4</b>						
Manufacturer	2027	2028	2029	2030	2031	2032
BMW	-6	4	5	10	6	34
Ford	42	72	109	73	38	9
GM	30	1	43	18	119	116
Honda	69	108	112	83	76	223
Hyundai Kia-H	33	93	76	59	95	153
Hyundai Kia-K	-8	-18	42	39	97	174
JLR	-2	-3	-5	-5	0	0
Karma	0	0	0	0	0	0
Lucid	3	3	3	2	2	2
Mazda	6	2	37	49	44	39
Mercedes-Benz	2	17	15	50	52	52
Mitsubishi	0	-2	-4	-6	2	1
Nissan	-9	46	44	59	46	124
Stellantis	46	21	101	71	56	51
Subaru	23	106	127	137	115	118
Tesla	338	334	321	310	301	295
Toyota	55	26	73	342	426	413
Volvo	0	-3	-4	14	13	32
VWA	-5	29	18	57	91	116
<b>Total</b>	<b>620</b>	<b>837</b>	<b>1,113</b>	<b>1,363</b>	<b>1,579</b>	<b>1,951</b>

**Table 780 - CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC3LT5**

<b>CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC3LT5</b>						
Manufacturer	2027	2028	2029	2030	2031	2032
BMW	-8	0	-2	1	-5	15
Ford	40	58	129	81	35	2
GM	43	9	46	12	111	79
Honda	88	126	87	128	116	184
Hyundai Kia-H	28	75	53	31	65	123
Hyundai Kia-K	-11	-25	44	36	99	182
JLR	-2	-4	-6	-7	-1	0
Karma	0	0	0	0	0	0
Lucid	3	3	2	2	2	2
Mazda	6	1	34	45	39	33
Mercedes-Benz	3	13	9	41	41	40
Mitsubishi	0	-3	-6	-9	20	18
Nissan	-15	55	36	47	39	126
Stellantis	57	22	91	71	45	34
Subaru	18	96	114	129	102	98
Tesla	336	328	313	299	287	277
Toyota	40	18	32	285	354	329
Volvo	-1	-4	-7	12	9	27
VWA	-9	22	6	42	71	91
<b>Total</b>	<b>615</b>	<b>788</b>	<b>977</b>	<b>1,246</b>	<b>1,427</b>	<b>1,660</b>

**Table 781 - CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC6LT8**

<b>CAFE Compliance Credits (in millions) Earned by Manufacturers, Total Fleet by Model Year for Alternative PC6LT8</b>						
Manufacturer	2027	2028	2029	2030	2031	2032
BMW	-14	-11	-20	-25	-40	1
Ford	81	164	271	185	93	22
GM	22	-46	-49	-109	50	36
Honda	62	139	99	85	41	158
Hyundai Kia-H	12	125	82	38	81	159
Hyundai Kia-K	-22	-49	26	10	76	175
JLR	-3	-7	-11	-13	-9	1
Karma	0	0	0	0	0	0
Lucid	3	2	2	2	2	2
Mazda	18	9	15	22	11	0
Mercedes-Benz	-2	6	3	37	37	32
Mitsubishi	-3	-8	-13	-19	9	6
Nissan	-32	16	-24	72	28	123
Stellantis	45	-20	42	77	19	33
Subaru	4	64	104	163	115	93
Tesla	327	308	284	260	238	216
Toyota	-1	-36	-72	101	253	251
Volvo	-3	-9	-15	1	-5	2
VWA	-20	60	30	87	127	144
<b>Total</b>	<b>471</b>	<b>707</b>	<b>753</b>	<b>976</b>	<b>1,126</b>	<b>1,454</b>

## Consumer Impacts

**Table 782 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year**

Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0



**Table 783 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 784 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, No Action Alternative (Baseline) at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 785 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 786 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 787 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, No Action Alternative (Baseline) at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	0	0	0	0	0	0
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	0	0	0	0	0	0
Increase in Taxes/Fees	0	0	0	0	0	0
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	0	0	0	0	0	0
Fuel Savings	0	0	0	0	0	0
Mobility Benefit	0	0	0	0	0	0
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	0	0	0	0	0	0
Total Consumer Benefit	0	0	0	0	0	0
Net Consumer Benefit	0	0	0	0	0	0
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 788 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	227	224	217	150	165	157
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	22	22	21	15	16	15
Increase in Taxes/Fees	13	13	12	9	9	9
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	262	259	250	173	190	181
Fuel Savings	-344	-357	-365	-242	-256	-269
Mobility Benefit	15	16	16	17	18	17
Reallocated Benefit	-1	-1	0	0	0	0
Refueling Benefit	68	69	68	32	28	27
Total Consumer Benefit	391	431	440	308	322	333
Net Consumer Benefit	130	173	190	135	132	151
Payback	0.0	0.0	0.3	0.0	0.0	0.0

**Table 789 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	188	209	212	167	179	210
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	18	20	20	16	17	20
Increase in Taxes/Fees	10	11	12	9	10	11
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	216	240	243	192	206	241
Fuel Savings	-160	-207	-228	-166	-167	-265
Mobility Benefit	5	7	8	7	6	7
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	37	42	46	30	20	31
Total Consumer Benefit	169	235	255	186	192	308
Net Consumer Benefit	-47	-5	12	-6	-14	67
Payback	0.0	0.0	1.0	0.0	0.0	0.0

**Table 790 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC1LT3 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	244	229	217	141	156	131
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	23	22	20	13	15	12
Increase in Taxes/Fees	13	13	12	8	9	7
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	281	263	249	162	179	150
Fuel Savings	-436	-434	-437	-286	-307	-279
Mobility Benefit	20	19	20	22	23	22
Reallocated Benefit	-1	-1	0	0	0	0
Refueling Benefit	83	82	78	33	32	25
Total Consumer Benefit	501	531	534	373	392	354
Net Consumer Benefit	220	267	284	211	213	204
Payback	0.0	0.0	0.0	0.0	0.0	0.0



**Table 791 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	227	224	217	150	165	157
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	18	18	18	12	14	13
Increase in Taxes/Fees	13	13	12	9	9	9
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	258	255	247	171	188	179
Fuel Savings	-264	-275	-282	-190	-201	-211
Mobility Benefit	12	12	13	14	14	14
Reallocated Benefit	-1	-1	0	0	0	0
Refueling Benefit	53	54	53	25	23	22
Total Consumer Benefit	323	361	368	258	269	277
Net Consumer Benefit	66	106	122	87	81	98
Payback	1.0	0.3	0.3	0.7	0.3	0.0

**Table 792 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	188	209	212	167	179	210
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	15	16	17	13	14	16
Increase in Taxes/Fees	10	11	12	9	10	11
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	213	237	240	189	203	238
Fuel Savings	-123	-160	-177	-129	-130	-206
Mobility Benefit	4	6	7	5	5	5
Reallocated Benefit	0	0	0	0	0	0
Refueling Benefit	29	33	36	23	15	24
Total Consumer Benefit	140	195	212	154	158	254
Net Consumer Benefit	-73	-41	-28	-35	-45	16
Payback	1.0	1.0	1.0	0.0	1.0	0.0

**Table 793 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC1LT3 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	244	229	217	141	156	131
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	19	18	17	11	12	10
Increase in Taxes/Fees	13	13	12	8	9	7
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	277	260	246	160	177	148
Fuel Savings	-335	-334	-337	-224	-241	-220
Mobility Benefit	15	15	15	17	18	17
Reallocated Benefit	-1	-1	0	0	0	0
Refueling Benefit	65	64	61	26	26	20
Total Consumer Benefit	414	444	447	313	328	294
Net Consumer Benefit	137	184	201	154	151	146
Payback	1.0	0.0	0.0	1.0	0.0	0.0

**Table 794 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	339	356	364	305	308	298
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	32	34	35	30	30	29
Increase in Taxes/Fees	18	20	20	17	17	17
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	389	410	420	352	355	344
Fuel Savings	-458	-511	-525	-418	-425	-453
Mobility Benefit	19	22	23	25	25	25
Reallocated Benefit	1	1	1	2	2	2
Refueling Benefit	94	98	98	64	57	56
Total Consumer Benefit	519	616	630	520	519	541
Net Consumer Benefit	130	206	211	168	164	197
Payback	0.0	0.0	0.3	0.3	0.0	0.0

**Table 795 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	183	245	276	258	262	279
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	17	23	26	24	25	26
Increase in Taxes/Fees	10	13	15	14	14	15
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	210	282	318	296	301	320
Fuel Savings	-151	-249	-225	-189	-177	-269
Mobility Benefit	5	10	11	10	9	9
Reallocated Benefit	1	1	1	1	1	1
Refueling Benefit	31	36	39	25	10	35
Total Consumer Benefit	162	287	240	207	201	302
Net Consumer Benefit	-49	5	-78	-89	-100	-18
Payback	0.0	0.0	1.0	1.0	0.0	0.0

**Table 796 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC2LT4 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	412	406	402	325	326	306
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	39	38	38	31	31	29
Increase in Taxes/Fees	23	22	22	18	18	17
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	474	467	462	373	375	352
Fuel Savings	-600	-638	-673	-535	-553	-549
Mobility Benefit	25	27	28	31	32	32
Reallocated Benefit	1	1	2	2	2	3
Refueling Benefit	124	127	125	81	78	67
Total Consumer Benefit	685	773	821	677	679	664
Net Consumer Benefit	212	306	359	303	304	312
Payback	0.0	0.0	0.0	0.0	0.0	0.0

**Table 797 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	339	356	364	305	308	298
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	26	28	29	25	25	24
Increase in Taxes/Fees	18	20	20	17	17	17
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	384	404	414	347	350	339
Fuel Savings	-352	-394	-405	-326	-332	-354
Mobility Benefit	14	17	18	19	20	20
Reallocated Benefit	0	0	1	1	1	2
Refueling Benefit	74	77	77	50	45	45
Total Consumer Benefit	429	515	527	435	431	448
Net Consumer Benefit	46	110	113	88	81	109
Payback	1.0	0.3	1.0	0.7	0.3	0.3

**Table 798 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	183	245	276	258	262	279
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	14	19	22	20	21	22
Increase in Taxes/Fees	10	13	15	14	14	15
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	207	278	313	292	297	316
Fuel Savings	-116	-192	-174	-147	-138	-209
Mobility Benefit	4	8	9	8	7	7
Reallocated Benefit	0	0	1	1	1	1
Refueling Benefit	24	28	30	19	8	27
Total Consumer Benefit	133	236	195	168	162	247
Net Consumer Benefit	-75	-42	-119	-124	-136	-68
Payback	1.0	1.0	1.0	0.0	1.0	1.0



**Table 799 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC2LT4 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	412	406	402	325	326	306
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	32	32	32	25	26	24
Increase in Taxes/Fees	23	22	22	18	18	17
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	467	460	456	368	370	347
Fuel Savings	-461	-491	-519	-417	-432	-429
Mobility Benefit	19	21	22	24	25	25
Reallocated Benefit	0	0	1	1	1	2
Refueling Benefit	97	99	98	64	62	53
Total Consumer Benefit	567	647	687	568	567	550
Net Consumer Benefit	100	187	232	200	197	203
Payback	1.0	0.0	1.0	1.0	0.0	0.0

**Table 800 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	428	495	523	546	567	523
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	40	47	50	52	54	50
Increase in Taxes/Fees	23	27	29	30	31	29
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	492	569	602	629	653	603
Fuel Savings	-600	-700	-736	-795	-850	-837
Mobility Benefit	23	28	32	38	40	39
Reallocated Benefit	0	0	1	1	2	2
Refueling Benefit	124	125	108	97	94	77
Total Consumer Benefit	673	848	912	1,009	1,053	1,018
Net Consumer Benefit	181	280	309	380	400	415
Payback	0.3	0.0	1.0	0.3	0.3	0.7

**Table 801 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	248	379	389	374	434	410
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	23	36	37	35	41	39
Increase in Taxes/Fees	14	21	21	20	24	22
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	285	435	447	430	499	472
Fuel Savings	-263	-414	-344	-320	-382	-380
Mobility Benefit	6	10	11	10	11	11
Reallocated Benefit	0	0	1	1	1	1
Refueling Benefit	85	88	77	63	49	32
Total Consumer Benefit	266	490	386	368	456	456
Net Consumer Benefit	-19	55	-61	-62	-43	-16
Payback	1.0	0.0	1.0	1.0	1.0	0.0

**Table 802 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC3LT5 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	514	548	583	624	627	575
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	48	52	55	59	59	54
Increase in Taxes/Fees	28	30	32	34	34	31
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	591	630	671	717	720	661
Fuel Savings	-754	-834	-924	-1,023	-1,079	-1,063
Mobility Benefit	32	36	41	51	53	53
Reallocated Benefit	0	1	1	2	2	2
Refueling Benefit	142	142	122	112	114	98
Total Consumer Benefit	858	1,017	1,161	1,314	1,343	1,294
Net Consumer Benefit	268	387	490	597	623	633
Payback	0.0	0.0	1.0	0.0	0.0	1.0

**Table 803 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	428	495	523	546	567	523
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	33	39	42	43	45	42
Increase in Taxes/Fees	23	27	29	30	31	29
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	485	561	594	620	644	594
Fuel Savings	-461	-539	-568	-616	-660	-651
Mobility Benefit	18	22	25	30	31	31
Reallocated Benefit	0	0	0	1	1	1
Refueling Benefit	97	98	85	76	74	61
Total Consumer Benefit	555	708	759	842	874	839
Net Consumer Benefit	70	147	165	222	230	245
Payback	1.0	1.0	1.0	1.0	1.0	0.3

**Table 804 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	248	379	389	374	434	410
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	19	30	30	29	34	32
Increase in Taxes/Fees	14	21	21	20	24	22
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	281	429	441	424	492	465
Fuel Savings	-202	-320	-265	-247	-296	-295
Mobility Benefit	4	8	8	8	9	9
Reallocated Benefit	0	0	0	0	1	1
Refueling Benefit	66	69	60	49	38	25
Total Consumer Benefit	223	412	321	306	378	375
Net Consumer Benefit	-58	-17	-120	-118	-114	-90
Payback	1.0	1.0	1.0	1.0	1.0	1.0

**Table 805 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC3LT5 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	514	548	583	624	627	575
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	40	43	46	49	49	45
Increase in Taxes/Fees	28	30	32	34	34	31
Lost Consumer Surplus	0	0	0	0	0	0
Total Consumer Cost	582	621	661	708	710	652
Fuel Savings	-579	-642	-713	-794	-839	-827
Mobility Benefit	25	28	32	40	41	41
Reallocated Benefit	0	0	0	1	1	2
Refueling Benefit	111	111	96	88	90	78
Total Consumer Benefit	707	847	967	1,096	1,114	1,067
Net Consumer Benefit	125	226	305	388	404	415
Payback	1.0	1.0	1.0	1.0	1.0	0.0

**Table 806 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	639	1,028	1,244	1,546	1,578	1,634
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	60	98	119	146	149	154
Increase in Taxes/Fees	35	57	69	85	86	89
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	735	1,185	1,434	1,780	1,817	1,880
Fuel Savings	-758	-1,223	-1,418	-1,830	-2,264	-2,598
Mobility Benefit	26	42	50	60	70	82
Reallocated Benefit	4	4	5	6	7	7
Refueling Benefit	149	195	173	176	198	219
Total Consumer Benefit	856	1,509	1,784	2,345	2,805	3,135
Net Consumer Benefit	122	323	350	565	989	1,255
Payback	1.0	1.3	1.6	1.3	1.0	1.0



**Table 807 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	498	1,076	1,207	1,278	1,187	1,148
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	47	102	114	121	112	108
Increase in Taxes/Fees	27	59	66	70	65	63
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	572	1,238	1,389	1,471	1,367	1,322
Fuel Savings	-359	-976	-1,002	-1,115	-1,216	-1,325
Mobility Benefit	7	19	22	21	23	26
Reallocated Benefit	2	2	3	4	4	5
Refueling Benefit	101	212	205	205	192	200
Total Consumer Benefit	382	1,169	1,181	1,341	1,449	1,538
Net Consumer Benefit	-190	-69	-208	-130	82	216
Payback	1.0	2.0	3.0	2.0	1.0	1.0

**Table 808 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC6LT8 at a 3% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	704	1,003	1,257	1,668	1,761	1,864
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	66	95	119	157	166	176
Increase in Taxes/Fees	38	55	69	91	96	102
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	810	1,154	1,447	1,920	2,026	2,144
Fuel Savings	-946	-1,352	-1,625	-2,167	-2,759	-3,198
Mobility Benefit	35	53	63	78	92	108
Reallocated Benefit	4	5	6	7	8	9
Refueling Benefit	171	186	157	162	200	228
Total Consumer Benefit	1,081	1,681	2,076	2,816	3,445	3,888
Net Consumer Benefit	271	527	629	896	1,419	1,744
Payback	1.0	1.0	1.0	1.0	1.0	1.0

**Table 809 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Total Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	639	1,028	1,244	1,546	1,578	1,634
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	50	82	99	122	124	128
Increase in Taxes/Fees	35	57	69	85	86	89
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	725	1,169	1,414	1,755	1,791	1,854
Fuel Savings	-581	-941	-1,093	-1,412	-1,747	-2,009
Mobility Benefit	20	33	39	47	55	64
Reallocated Benefit	1	2	3	3	4	5
Refueling Benefit	116	152	135	138	155	172
Total Consumer Benefit	705	1,258	1,483	1,950	2,313	2,573
Net Consumer Benefit	-20	89	69	194	522	719
Payback	2.0	2.6	2.6	3.0	2.3	1.3

**Table 810 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Passenger Car Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	498	1,076	1,207	1,278	1,187	1,148
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	39	84	95	100	93	90
Increase in Taxes/Fees	27	59	66	70	65	63
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	565	1,221	1,370	1,451	1,348	1,304
Fuel Savings	-277	-754	-776	-865	-946	-1,032
Mobility Benefit	6	15	17	17	18	21
Reallocated Benefit	1	1	2	2	3	3
Refueling Benefit	79	166	160	161	151	157
Total Consumer Benefit	319	988	992	1,130	1,214	1,281
Net Consumer Benefit	-246	-233	-377	-321	-134	-22
Payback	2.0	4.0	4.0	3.0	3.0	2.0

**Table 811 - Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year**

<b>Average Impacts to Consumers Relative to Alternative 0 (Baseline) for the Light Truck Fleet, Alternative PC6LT8 at a 7% Discount Rate (dollars), per Vehicle Model Year</b>						
Model Year	2027	2028	2029	2030	2031	2032
Price Increase	704	1,003	1,257	1,668	1,761	1,864
Implicit Opportunity Cost	0	0	0	0	0	0
Increase in Financing Cost	0	0	0	0	0	0
Increase in Insurance Cost	55	79	99	131	138	146
Increase in Taxes/Fees	38	55	69	91	96	102
Lost Consumer Surplus	1	1	2	3	3	3
Total Consumer Cost	799	1,138	1,427	1,893	1,998	2,114
Fuel Savings	-726	-1,038	-1,250	-1,669	-2,126	-2,469
Mobility Benefit	27	41	49	61	72	85
Reallocated Benefit	2	2	3	4	5	6
Refueling Benefit	134	146	123	127	157	179
Total Consumer Benefit	888	1,394	1,719	2,333	2,832	3,182
Net Consumer Benefit	89	256	293	440	834	1,068
Payback	2.0	2.0	2.0	3.0	2.0	1.0

## Environmental Impacts

**Table 812 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fleetwide Change in Upstream Emissions				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
Fleetwide Change in Tailpipe Emissions				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
Fleetwide Change in Total Emissions				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0

**Table 813 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0

**Table 814 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0



**Table 815 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.1	0.2	0.4	1.2
VOC Upstream	-0.4	-0.6	-1.1	-3.5
NOx Upstream	0.2	0.3	0.6	1.8
SO2 Upstream	0.2	0.3	0.6	2.0
PM Upstream	0.0	0.0	0.1	0.2
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-3.0	-5.1	-9.4	-30.6
VOC Tailpipe	-0.2	-0.3	-0.6	-1.9
NOx Tailpipe	-0.1	-0.1	-0.2	-0.7
SO2 Tailpipe	0.0	0.0	0.0	-0.1
PM Tailpipe	0.0	0.0	0.0	-0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-2.9	-4.9	-9.0	-29.4
VOC Total	-0.6	-0.9	-1.7	-5.4
NOx Total	0.1	0.2	0.4	1.1

**Table 816 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.2
VOC Upstream	-0.1	-0.1	-0.2	-0.6
NOx Upstream	0.0	0.0	0.0	0.2
SO2 Upstream	0.1	0.0	0.1	0.3
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-1.2	-1.1	-1.6	-6.4
VOC Tailpipe	-0.1	-0.1	-0.1	-0.4
NOx Tailpipe	0.0	0.0	0.0	-0.1
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-1.2	-1.1	-1.6	-6.3
VOC Total	-0.2	-0.2	-0.3	-1.0
NOx Total	0.0	0.0	0.0	0.1

**Table 817 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.1	0.2	0.3	1.0
VOC Upstream	-0.3	-0.5	-1.0	-2.9
NOx Upstream	0.2	0.3	0.5	1.5
SO2 Upstream	0.2	0.3	0.6	1.7
PM Upstream	0.0	0.0	0.0	0.1
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-1.9	-4.1	-7.8	-24.1
VOC Tailpipe	-0.1	-0.3	-0.5	-1.5
NOx Tailpipe	0.0	-0.1	-0.2	-0.5
SO2 Tailpipe	0.0	0.0	0.0	-0.1
PM Tailpipe	0.0	0.0	0.0	-0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-1.7	-3.9	-7.4	-23.1
VOC Total	-0.4	-0.8	-1.5	-4.5
NOx Total	0.1	0.2	0.3	1.0

**Table 818 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Total Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.1	0.2	0.3	0.9
VOC Upstream	-0.3	-0.5	-0.9	-2.7
NOx Upstream	0.1	0.2	0.4	1.2
SO2 Upstream	0.2	0.2	0.4	1.4
PM Upstream	0.0	0.0	0.0	0.1
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-3.8	-6.3	-11.4	-36.4
VOC Tailpipe	-0.2	-0.3	-0.6	-1.9
NOx Tailpipe	-0.1	-0.1	-0.2	-0.7
SO2 Tailpipe	0.0	0.0	0.0	-0.1
PM Tailpipe	0.0	0.0	0.0	-0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-3.7	-6.1	-11.1	-35.5
VOC Total	-0.5	-0.8	-1.5	-4.6
NOx Total	0.1	0.1	0.2	0.5

**Table 819 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Passenger Car Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.1
VOC Upstream	-0.1	-0.1	-0.1	-0.4
NOx Upstream	0.0	0.0	0.0	0.2
SO2 Upstream	0.0	0.0	0.0	0.2
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-1.4	-1.3	-1.9	-7.8
VOC Tailpipe	-0.1	-0.1	-0.1	-0.4
NOx Tailpipe	0.0	0.0	0.0	-0.1
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-1.4	-1.3	-1.9	-7.6
VOC Total	-0.2	-0.2	-0.2	-0.9
NOx Total	0.0	0.0	0.0	0.0

**Table 820 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) from the MY 2032 Light Truck Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.1	0.1	0.3	0.8
VOC Upstream	-0.2	-0.4	-0.8	-2.3
NOx Upstream	0.1	0.2	0.4	1.1
SO2 Upstream	0.1	0.2	0.4	1.2
PM Upstream	0.0	0.0	0.0	0.1
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-2.4	-5.0	-9.4	-28.6
VOC Tailpipe	-0.1	-0.3	-0.5	-1.5
NOx Tailpipe	0.0	-0.1	-0.2	-0.6
SO2 Tailpipe	0.0	0.0	0.0	-0.1
PM Tailpipe	0.0	0.0	0.0	-0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-2.3	-4.9	-9.2	-27.8
VOC Total	-0.3	-0.7	-1.3	-3.7
NOx Total	0.1	0.1	0.2	0.5

**Table 821 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Total Fleet, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Total Fleet, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	13.9	19.2	32.2	71.7
VOC Upstream	-38.5	-57.5	-93.3	-206.9
NOx Upstream	20.2	27.6	46.3	103.0
SO2 Upstream	22.2	31.0	51.4	113.6
PM Upstream	1.8	2.5	4.2	9.4
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-471.7	-700.3	#####	#####
VOC Tailpipe	-35.8	-54.0	-92.9	-224.2
NOx Tailpipe	-8.3	-12.2	-20.6	-47.1
SO2 Tailpipe	-0.9	-1.3	-2.2	-4.9
PM Tailpipe	-1.3	-2.0	-3.3	-7.8
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-457.8	-681.1	#####	#####
VOC Total	-74.3	-111.5	-186.2	-431.1
NOx Total	11.9	15.3	25.7	55.9

**Table 822 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Light Truck Fleet, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Light Truck Fleet, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	12.3	18.3	28.5	60.4
VOC Upstream	-30.3	-49.5	-79.8	-169.5
NOx Upstream	18.3	26.6	41.3	87.0
SO2 Upstream	19.3	29.0	45.3	95.1
PM Upstream	1.6	2.4	3.8	7.9
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-357.6	-622.7	-993.7	#####
VOC Tailpipe	-26.8	-48.1	-78.2	-179.0
NOx Tailpipe	-6.3	-10.9	-17.3	-36.9
SO2 Tailpipe	-0.7	-1.2	-1.9	-4.0
PM Tailpipe	-1.0	-1.7	-2.8	-6.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-345.3	-604.5	-965.2	#####
VOC Total	-57.1	-97.5	-158.0	-348.5
NOx Total	11.9	15.8	24.0	50.1



**Table 823 - Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Passenger Car Fleet, by Alternative (1,000 metric tons)**

<b>Incremental Change in Criteria Emissions Relative to Alternative 0 (Baseline) Over Lifetimes of Vehicles Through 2032 for the Passenger Car Fleet, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	1.5	0.9	3.6	11.4
VOC Upstream	-8.2	-8.1	-13.5	-37.4
NOx Upstream	1.9	0.9	5.0	16.0
SO2 Upstream	2.8	2.0	6.1	18.6
PM Upstream	0.2	0.1	0.5	1.5
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	-114.0	-77.5	-188.4	-583.3
VOC Tailpipe	-9.0	-5.9	-14.6	-45.2
NOx Tailpipe	-2.0	-1.4	-3.4	-10.2
SO2 Tailpipe	-0.2	-0.2	-0.3	-0.9
PM Tailpipe	-0.3	-0.3	-0.6	-1.8
<b>Fleetwide Change in Total Emissions</b>				
CO Total	-112.5	-76.6	-184.7	-571.9
VOC Total	-17.2	-14.0	-28.2	-82.6
NOx Total	0.0	-0.4	1.7	5.8

**Table 824 - Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0

**Table 825 - Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0

**Table 826 - Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2030, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	0.0	0.0	0.0	0.0
VOC Upstream	0.0	0.0	0.0	0.0
NOx Upstream	0.0	0.0	0.0	0.0
SO2 Upstream	0.0	0.0	0.0	0.0
PM Upstream	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	0.0	0.0	0.0	0.0
VOC Tailpipe	0.0	0.0	0.0	0.0
NOx Tailpipe	0.0	0.0	0.0	0.0
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	0.0	0.0	0.0	0.0
VOC Total	0.0	0.0	0.0	0.0
NOx Total	0.0	0.0	0.0	0.0

**Table 827 - Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	6.2	6.2	6.4	7.2
VOC Upstream	10.8	10.6	10.0	7.7
NOx Upstream	11.1	11.2	11.5	12.7
SO2 Upstream	7.2	7.3	7.6	8.9
PM Upstream	0.8	0.9	0.9	1.0
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	80.1	78.0	73.8	52.6
VOC Tailpipe	5.1	5.0	4.7	3.4
NOx Tailpipe	1.7	1.7	1.6	1.1
SO2 Tailpipe	0.2	0.2	0.2	0.1
PM Tailpipe	0.2	0.2	0.2	0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	86.3	84.3	80.2	59.8
VOC Total	15.9	15.5	14.7	11.0
NOx Total	12.8	12.9	13.1	13.8

**Table 828 - Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	1.8	1.8	1.8	2.0
VOC Upstream	2.0	2.0	2.0	1.6
NOx Upstream	3.2	3.2	3.2	3.4
SO2 Upstream	2.2	2.2	2.3	2.5
PM Upstream	0.2	0.2	0.3	0.3
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	16.9	17.0	16.5	11.6
VOC Tailpipe	1.1	1.1	1.1	0.8
NOx Tailpipe	0.4	0.4	0.4	0.3
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.0	0.0	0.0	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	18.7	18.8	18.3	13.6
VOC Total	3.1	3.1	3.0	2.3
NOx Total	3.6	3.6	3.6	3.7

**Table 829 - Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2035, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	4.3	4.4	4.6	5.3
VOC Upstream	8.8	8.5	8.1	6.1
NOx Upstream	7.9	8.0	8.3	9.3
SO2 Upstream	4.9	5.1	5.3	6.4
PM Upstream	0.6	0.6	0.6	0.7
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	63.2	61.0	57.3	41.0
VOC Tailpipe	4.0	3.9	3.6	2.6
NOx Tailpipe	1.4	1.3	1.2	0.9
SO2 Tailpipe	0.2	0.2	0.1	0.1
PM Tailpipe	0.2	0.2	0.1	0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	67.6	65.4	61.9	46.2
VOC Total	12.8	12.4	11.7	8.7
NOx Total	9.3	9.3	9.5	10.1

**Table 830 - Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Total Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	4.6	4.7	4.8	5.4
VOC Upstream	8.2	8.0	7.6	5.8
NOx Upstream	8.2	8.3	8.5	9.3
SO2 Upstream	5.1	5.1	5.3	6.3
PM Upstream	0.6	0.6	0.6	0.7
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	94.3	91.8	86.7	61.7
VOC Tailpipe	4.9	4.8	4.5	3.2
NOx Tailpipe	1.8	1.7	1.6	1.2
SO2 Tailpipe	0.1	0.1	0.1	0.1
PM Tailpipe	0.3	0.3	0.2	0.2
<b>Fleetwide Change in Total Emissions</b>				
CO Total	98.9	96.5	91.5	67.1
VOC Total	13.1	12.8	12.1	9.0
NOx Total	10.0	10.0	10.1	10.5



**Table 831 - Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Passenger Car Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	1.4	1.4	1.4	1.5
VOC Upstream	1.5	1.5	1.5	1.2
NOx Upstream	2.3	2.3	2.3	2.5
SO2 Upstream	1.6	1.6	1.6	1.7
PM Upstream	0.2	0.2	0.2	0.2
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	20.4	20.6	19.9	14.1
VOC Tailpipe	1.1	1.1	1.0	0.7
NOx Tailpipe	0.4	0.4	0.4	0.2
SO2 Tailpipe	0.0	0.0	0.0	0.0
PM Tailpipe	0.1	0.1	0.1	0.0
<b>Fleetwide Change in Total Emissions</b>				
CO Total	21.8	21.9	21.3	15.5
VOC Total	2.6	2.6	2.5	1.9
NOx Total	2.7	2.7	2.7	2.7

**Table 832 - Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)**

<b>Total Criteria Emissions from the MY 2032 Light Truck Fleet in Calendar Year 2040, by Alternative (1,000 metric tons)</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fleetwide Change in Upstream Emissions</b>				
CO Upstream	3.3	3.3	3.4	3.9
VOC Upstream	6.7	6.5	6.1	4.6
NOx Upstream	5.9	5.9	6.1	6.8
SO2 Upstream	3.5	3.6	3.8	4.5
PM Upstream	0.4	0.4	0.5	0.5
<b>Fleetwide Change in Tailpipe Emissions</b>				
CO Tailpipe	73.9	71.2	66.8	47.7
VOC Tailpipe	3.8	3.7	3.5	2.5
NOx Tailpipe	1.4	1.4	1.3	0.9
SO2 Tailpipe	0.1	0.1	0.1	0.1
PM Tailpipe	0.2	0.2	0.2	0.1
<b>Fleetwide Change in Total Emissions</b>				
CO Total	77.1	74.6	70.3	51.6
VOC Total	10.5	10.2	9.6	7.1
NOx Total	7.3	7.3	7.4	7.7

## Electrification Costs

**Table 833 - Incremental Electrification Costs for Manufacturer (Total), MY 2032 Total Fleet**

<b>Incremental Electrification Costs for Manufacturer (Total), MY 2032 Total Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	-108.8	-106.1	-100.4	-68.6
Electrification Tax Credits (\$b)	-17.1	-16.7	-15.6	-11.1
Irretrievable Electrification Costs (\$b)	-22.0	-21.5	-20.7	-15.4
<b>Total Electrification Costs (\$b)</b>	<b>-61.3</b>	<b>-59.7</b>	<b>-56.3</b>	<b>-36.3</b>

**Table 834 - Incremental Electrification Costs for Manufacturer (Total), MY 2032 Passenger Car Fleet**

<b>Incremental Electrification Costs for Manufacturer (Total), MY 2032 Passenger Car Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	-31.0	-31.1	-30.2	-23.7
Electrification Tax Credits (\$b)	-6.0	-6.1	-5.9	-4.9
Irretrievable Electrification Costs (\$b)	-7.1	-7.2	-7.1	-5.7
Total Electrification Costs (\$b)	-15.5	-15.5	-14.9	-11.1

**Table 835 - Incremental Electrification Costs for Manufacturer (Total), MY 2032 Light Truck Fleet**

<b>Incremental Electrification Costs for Manufacturer (Total), MY 2032 Light Truck Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	-77.7	-75.0	-70.2	-44.8
Electrification Tax Credits (\$b)	-11.1	-10.6	-9.7	-6.2
Irretrievable Electrification Costs (\$b)	-14.9	-14.4	-13.6	-9.7
Total Electrification Costs (\$b)	-45.7	-44.2	-41.5	-25.2

**Table 836 - Total Electrification Costs for Manufacturer (Total), MY 2032 Total Fleet**

<b>Total Electrification Costs for Manufacturer (Total), MY 2032 Total Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	4.3	6.9	12.6	44.5
Electrification Tax Credits (\$b)	0.8	1.2	2.2	6.7
Irretrievable Electrification Costs (\$b)	0.8	1.2	2.1	7.4
<b>Total Electrification Costs (\$b)</b>	<b>2.4</b>	<b>4.0</b>	<b>7.3</b>	<b>27.3</b>

**Table 837 - Total Electrification Costs for Manufacturer (Total), MY 2032 Passenger Car Fleet**

<b>Total Electrification Costs for Manufacturer (Total), MY 2032 Passenger Car Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	1.5	1.5	2.4	8.8
Electrification Tax Credits (\$b)	0.2	0.2	0.3	1.3
Irretrievable Electrification Costs (\$b)	0.3	0.3	0.4	1.7
<b>Total Electrification Costs (\$b)</b>	<b>1.0</b>	<b>1.0</b>	<b>1.6</b>	<b>5.4</b>

**Table 838 - Total Electrification Costs for Manufacturer (Total), MY 2032 Light Truck Fleet**

<b>Total Electrification Costs for Manufacturer (Total), MY 2032 Light Truck Fleet</b>				
	Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Retrievable Electrification Costs (\$b)	2.8	5.5	10.2	35.6
Electrification Tax Credits (\$b)	0.6	1.0	1.9	5.4
Irretrievable Electrification Costs (\$b)	0.5	1.0	1.7	5.7
<b>Total Electrification Costs (\$b)</b>	<b>1.5</b>	<b>3.0</b>	<b>5.7</b>	<b>22.0</b>



## Fleet Characteristics

**Table 839 - Changes in Fleet Characteristics for Model Years 2027-2032 for No Action Alternative (Baseline)**

<b>Changes in Fleet Characteristics for Model Years 2027-2032 for No Action Alternative (Baseline)</b>								
Model Year	2027	2028	2029	2030	2031	2032	Total	Avg.
Changes in Fleet Size, Usage and Fuel Consumption								
Changes in Fleet Size (m)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Light Truck Share (%)	70%	70%	71%	70%	70%	70%	N/A	70%
Pass. Car Share (%)	30%	30%	29%	30%	30%	30%	N/A	30%
VMT from Rebound (b)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Volume - Total (b gallons)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Volume - Lt. Truck (b gallons)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuel Volume - Pass. Car (b gallons)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Changes in Fatalities by Source								
Fatalities from Rebound Miles	0	0	0	0	0	0	0	0
Fatalities from Curb Weight Change	0	0	0	0	0	0	0	0
Total Changes in Fatalities	0	0	0	0	0	0	0	0
Changes in Non-Fatal Safety Impacts								
Injuries from Rebound Miles (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0	0
Injuries from Curb Weight (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Change in Injuries (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property Damage from Rebound Miles (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Property Damage from Curb Weight (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Property Damaged Vehicles (thousands)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table 840 - Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC1LT3**

Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC1LT3								
Model Year	2027	2028	2029	2030	2031	2032	Total	Avg.
Changes in Fleet Size, Usage and Fuel Consumption								
Changes in Fleet Size (m)	-0.2	-0.1	0.0	0.0	-0.1	0.0	-0.4	-0.1
Light Truck Share (%)	70%	70%	71%	71%	70%	70%	N/A	70%
Pass. Car Share (%)	30%	30%	29%	29%	30%	30%	N/A	30%
VMT from Rebound (b)	3.1	3.3	3.4	3.1	3.1	3.1	19.2	3.2
Fuel Volume - Total (b gallons)	-2.6	-2.6	-2.6	-1.6	-1.7	-1.7	-12.9	-2.1
Fuel Volume - Lt. Truck (b gallons)	-2.2	-2.1	-2.0	-1.2	-1.3	-1.1	-10.0	-1.7
Fuel Volume - Pass. Car (b gallons)	-0.4	-0.5	-0.6	-0.4	-0.4	-0.6	-2.9	-0.5
Changes in Fatalities by Source								
Fatalities from Rebound Miles	14	15	15	14	14	14	88	15
Fatalities from Curb Weight Change	0	0	-1	-1	-1	-1	-2	0
Total Changes in Fatalities	13	19	20	16	14	16	97	16
Changes in Non-Fatal Safety Impacts								
Injuries from Rebound Miles (thousands)	2.3	2.4	2.4	2.2	2.2	2.2	14	2
Injuries from Curb Weight (thousands)	0.0	0.0	-0.1	-0.1	-0.1	-0.1	-0.4	-0.1
Total Change in Injuries (thousands)	2.0	2.9	3.0	2.4	2.2	2.5	15.1	2.5
Property Damage from Rebound Miles (thousands)	7.0	7.4	7.5	6.9	7.0	6.9	42.7	7.1
Property Damage from Curb Weight (thousands)	0.1	0.1	-0.3	-0.2	-0.4	-0.4	-1.1	-0.2
Total Property Damaged Vehicles (thousands)	6.1	8.8	9.3	7.5	6.9	7.9	46.3	7.7

**Table 841 - Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC3LT5**

Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC3LT5								
Model Year	2027	2028	2029	2030	2031	2032	Total	Avg.
Changes in Fleet Size, Usage and Fuel Consumption								
Changes in Fleet Size (m)	-0.4	-0.4	-0.4	-0.3	-0.4	-0.4	-2.2	-0.4
Light Truck Share (%)	70%	70%	71%	71%	70%	70%	N/A	70%
Pass. Car Share (%)	30%	30%	29%	29%	30%	30%	N/A	30%
VMT from Rebound (b)	5.2	6.3	6.6	7.6	7.8	7.6	41.2	6.9
Fuel Volume - Total (b gallons)	-4.5	-5.2	-5.3	-5.5	-5.7	-5.5	-31.7	-5.3
Fuel Volume - Lt. Truck (b gallons)	-3.9	-4.2	-4.5	-4.7	-4.8	-4.7	-26.8	-4.5
Fuel Volume - Pass. Car (b gallons)	-0.6	-1.0	-0.8	-0.8	-0.9	-0.9	-4.9	-0.8
Changes in Fatalities by Source								
Fatalities from Rebound Miles	24	29	30	34	35	34	186	31
Fatalities from Curb Weight Change	0	-2	-1	-1	-1	1	-4	-1
Total Changes in Fatalities	15	23	25	32	32	35	161	27
Changes in Non-Fatal Safety Impacts								
Injuries from Rebound Miles (thousands)	3.7	4.5	4.7	5.4	5.5	5.4	29	5
Injuries from Curb Weight (thousands)	0.0	-0.3	-0.1	-0.2	-0.2	0.2	-0.6	-0.1
Total Change in Injuries (thousands)	2.3	3.6	4.0	5.0	5.0	5.5	25.3	4.2
Property Damage from Rebound Miles (thousands)	11.7	13.9	14.6	16.7	17.1	16.8	90.8	15.1
Property Damage from Curb Weight (thousands)	-0.1	-0.8	-0.4	-0.5	-0.6	0.5	-1.9	-0.3
Total Property Damaged Vehicles (thousands)	7.2	10.9	12.2	15.4	15.6	17.1	78.3	13.0

**Table 842 - Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC2LT4**

Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC2LT4								
Model Year	2027	2028	2029	2030	2031	2032	Total	Avg.
Changes in Fleet Size, Usage and Fuel Consumption								
Changes in Fleet Size (m)	-0.3	-0.2	-0.2	-0.2	-0.2	-0.2	-1.4	-0.2
Light Truck Share (%)	70%	70%	71%	71%	70%	70%	N/A	70%
Pass. Car Share (%)	30%	30%	29%	29%	30%	30%	N/A	30%
VMT from Rebound (b)	4.1	4.8	4.9	4.7	4.6	4.7	27.8	4.6
Fuel Volume - Total (b gallons)	-3.4	-3.8	-3.8	-2.9	-2.8	-3.0	-19.7	-3.3
Fuel Volume - Lt. Truck (b gallons)	-3.1	-3.2	-3.2	-2.4	-2.4	-2.4	-16.6	-2.8
Fuel Volume - Pass. Car (b gallons)	-0.4	-0.6	-0.6	-0.5	-0.4	-0.6	-3.1	-0.5
Changes in Fatalities by Source								
Fatalities from Rebound Miles	19	22	22	21	21	21	126	21
Fatalities from Curb Weight Change	0	-2	-2	-3	-3	0	-11	-2
Total Changes in Fatalities	11	19	21	18	16	21	106	18
Changes in Non-Fatal Safety Impacts								
Injuries from Rebound Miles (thousands)	2.9	3.4	3.5	3.3	3.3	3.3	20	3
Injuries from Curb Weight (thousands)	0.0	-0.3	-0.4	-0.4	-0.5	-0.1	-1.7	-0.3
Total Change in Injuries (thousands)	1.8	3.0	3.2	2.8	2.5	3.3	16.6	2.8
Property Damage from Rebound Miles (thousands)	9.1	10.5	10.8	10.3	10.2	10.3	61.2	10.2
Property Damage from Curb Weight (thousands)	-0.1	-0.9	-1.2	-1.2	-1.5	-0.2	-5.1	-0.9
Total Property Damaged Vehicles (thousands)	5.4	9.1	9.7	8.5	7.6	10.4	50.7	8.5

**Table 843 - Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC6LT8**

Changes in Fleet Characteristics for Model Years 2027-2032 for Alternative PC6LT8								
Model Year	2027	2028	2029	2030	2031	2032	Total	Avg.
Changes in Fleet Size, Usage and Fuel Consumption								
Changes in Fleet Size (m)	-0.8	-1.0	-1.4	-1.6	-1.4	-1.4	-7.7	-1.3
Light Truck Share (%)	70%	71%	71%	71%	70%	70%	N/A	70%
Pass. Car Share (%)	30%	29%	29%	29%	30%	30%	N/A	30%
VMT from Rebound (b)	6.1	10.2	11.5	13.4	15.7	18.2	75.0	12.5
Fuel Volume - Total (b gallons)	-5.8	-9.2	-10.4	-12.9	-15.3	-17.2	-70.8	-11.8
Fuel Volume - Lt. Truck (b gallons)	-4.9	-6.8	-8.0	-10.4	-12.7	-14.5	-57.2	-9.5
Fuel Volume - Pass. Car (b gallons)	-0.9	-2.4	-2.4	-2.5	-2.6	-2.8	-13.6	-2.3
Changes in Fatalities by Source								
Fatalities from Rebound Miles	28	46	52	61	71	82	339	56
Fatalities from Curb Weight Change	-1	-2	-1	-1	0	1	-5	-1
Total Changes in Fatalities	9	21	13	16	50	72	181	30
Changes in Non-Fatal Safety Impacts								
Injuries from Rebound Miles (thousands)	4.3	7.2	8.1	9.5	11.0	12.7	53	9
Injuries from Curb Weight (thousands)	-0.1	-0.4	-0.2	-0.1	0.0	0.1	-0.7	-0.1
Total Change in Injuries (thousands)	1.4	3.4	2.1	2.6	7.9	11.4	28.7	4.8
Property Damage from Rebound Miles (thousands)	13.5	22.5	25.3	29.6	34.3	39.8	164.9	27.5
Property Damage from Curb Weight (thousands)	-0.3	-1.2	-0.6	-0.4	0.1	0.4	-2.0	-0.3
Total Property Damaged Vehicles (thousands)	4.1	10.2	6.5	8.6	24.9	36.1	90.3	15.0

## Liquid Fuel and Electricity Consumption

**Table 844 - Change in Liquid Fuel Consumed (b Gallons), Total Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Liquid Fuel Consumed (b Gallons), Total Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	1261.4	-2.6	-2.6	-1.6	-1.7	-1.7	1251.1
Alternative PC2LT4	1261.6	-3.8	-3.8	-2.9	-2.8	-3.0	1245.4
Alternative PC3LT5	1261.8	-5.2	-5.3	-5.5	-5.7	-5.5	1234.6
Alternative PC6LT8	1262.8	-9.2	-10.4	-12.9	-15.3	-17.2	1197.8

**Table 845 - Change in Liquid Fuel Consumed (b Gallons), Passenger Car Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Liquid Fuel Consumed (b Gallons), Passenger Car Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	478.2	-0.5	-0.6	-0.4	-0.4	-0.6	475.7
Alternative PC2LT4	478.4	-0.6	-0.6	-0.5	-0.4	-0.6	475.6
Alternative PC3LT5	478.4	-1.0	-0.8	-0.8	-0.9	-0.9	474.1
Alternative PC6LT8	479.1	-2.4	-2.4	-2.5	-2.6	-2.8	466.3

**Table 846 - Change in Liquid Fuel Consumed (b Gallons), Light Truck Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Liquid Fuel Consumed (b Gallons), Light Truck Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	783.2	-2.1	-2.0	-1.2	-1.3	-1.1	775.4
Alternative PC2LT4	783.3	-3.2	-3.2	-2.4	-2.4	-2.4	769.8
Alternative PC3LT5	783.3	-4.2	-4.5	-4.7	-4.8	-4.7	760.5
Alternative PC6LT8	783.8	-6.8	-8.0	-10.4	-12.7	-14.5	731.5



**Table 847 - Change in Electricity (G-Wh) Consumed, Total Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Electricity (G-Wh) Consumed, Total Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	90.0	30.3	29.4	16.7	17.2	18.7	202.4
Alternative PC2LT4	90.0	39.8	39.3	27.3	27.1	30.0	253.5
Alternative PC3LT5	90.0	54.5	56.9	56.9	59.1	57.4	374.8
Alternative PC6LT8	90.1	95.7	106.8	134.7	162.3	183.5	773.0

**Table 848 - Change in Electricity (G-Wh) Consumed, Passenger Car Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Electricity (G-Wh) Consumed, Passenger Car Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	66.8	3.6	3.7	2.3	2.3	5.0	83.7
Alternative PC2LT4	66.8	3.6	2.5	1.5	1.1	3.8	79.3
Alternative PC3LT5	66.8	9.2	6.9	5.7	6.6	6.2	101.4
Alternative PC6LT8	66.9	21.2	20.2	22.2	24.4	26.3	181.2

**Table 849 - Change in Electricity (G-Wh) Consumed, Light Truck Fleet, Undiscounted Over the Lifetime of the Model Year**

<b>Change in Electricity (G-Wh) Consumed, Light Truck Fleet, Undiscounted Over the Lifetime of the Model Year</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Alternative PC1LT3	23.2	26.7	25.7	14.3	14.9	13.8	118.6
Alternative PC2LT4	23.2	36.2	36.8	25.8	26.0	26.2	174.1
Alternative PC3LT5	23.2	45.3	50.0	51.1	52.5	51.2	273.4
Alternative PC6LT8	23.2	74.5	86.6	112.4	137.9	157.2	591.8

## Sales Impacts

**Table 850 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Total)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	15,663,000	-9,000	-17,000	-21,000	-40,000
2028	15,823,000	-4,000	-12,000	-18,000	-54,000
2029	15,606,000	-3,000	-13,000	-20,000	-73,000
2030	15,260,000	-3,000	-12,000	-18,000	-83,000
2031	14,988,000	-5,000	-13,000	-20,000	-68,000
2032	14,912,000	-3,000	-12,000	-19,000	-65,000

**Table 851 - Estimated Sales Impacts by Alternative, Passenger Car Fleet for Manufacturer (Total)**

<b>Estimated Sales Impacts by Alternative, Passenger Car Fleet for Manufacturer (Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	4,995,000	-13,000	-3,000	2,000	-17,000
2028	5,011,000	-17,000	-14,000	-10,000	-46,000
2029	4,920,000	-18,000	-24,000	-21,000	-54,000
2030	4,830,000	-16,000	-25,000	-21,000	-38,000
2031	4,794,000	-17,000	-25,000	-25,000	-28,000
2032	4,784,000	-15,000	-20,000	-24,000	-18,000

**Table 852 - Estimated Sales Impacts by Alternative, Light Truck Fleet for Manufacturer (Total)**

<b>Estimated Sales Impacts by Alternative, Light Truck Fleet for Manufacturer (Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	10,668,000	4,000	-14,000	-23,000	-23,000
2028	10,812,000	13,000	2,000	-8,000	-8,000
2029	10,685,000	15,000	12,000	1,000	-19,000
2030	10,430,000	13,000	13,000	3,000	-45,000
2031	10,194,000	12,000	12,000	5,000	-41,000
2032	10,128,000	12,000	8,000	5,000	-47,000

**Table 853 - Estimated Sales Impacts by Alternative, Domestic Car Fleet for Manufacturer (Total)**

<b>Estimated Sales Impacts by Alternative, Domestic Car Fleet for Manufacturer (Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,466,000	-6,000	-1,000	1,000	-8,000
2028	2,475,000	-9,000	-7,000	-5,000	-23,000
2029	2,430,000	-9,000	-12,000	-10,000	-27,000
2030	2,385,000	-8,000	-12,000	-10,000	-19,000
2031	2,367,000	-8,000	-12,000	-13,000	-14,000
2032	2,362,000	-8,000	-10,000	-12,000	-9,000

**Table 854 - Estimated Sales Impacts by Alternative, Imported Car Fleet for Manufacturer (Total)**

<b>Estimated Sales Impacts by Alternative, Imported Car Fleet for Manufacturer (Total)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,528,000	-6,000	-1,000	1,000	-9,000
2028	2,537,000	-9,000	-7,000	-5,000	-23,000
2029	2,491,000	-9,000	-12,000	-11,000	-27,000
2030	2,445,000	-8,000	-12,000	-11,000	-19,000
2031	2,426,000	-9,000	-13,000	-13,000	-14,000
2032	2,421,000	-8,000	-10,000	-12,000	-9,000



**Table 855 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (BMW)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (BMW)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	376,000	0	0	0	-1,000
2028	379,000	0	0	-1,000	-2,000
2029	374,000	0	-1,000	-1,000	-2,000
2030	366,000	0	-1,000	-1,000	-2,000
2031	360,000	0	-1,000	-1,000	-2,000
2032	358,000	0	-1,000	-1,000	-2,000

**Table 856 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Ford)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Ford)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,897,000	0	-2,000	-4,000	-4,000
2028	1,921,000	2,000	0	-2,000	-3,000
2029	1,897,000	2,000	1,000	-1,000	-5,000
2030	1,853,000	2,000	1,000	0	-9,000
2031	1,814,000	1,000	1,000	0	-8,000
2032	1,803,000	1,000	1,000	0	-8,000

**Table 857 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (GM)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (GM)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,057,000	0	-2,000	-3,000	-5,000
2028	2,081,000	1,000	-1,000	-2,000	-5,000
2029	2,054,000	1,000	0	-2,000	-7,000
2030	2,007,000	1,000	0	-1,000	-10,000
2031	1,967,000	1,000	0	-1,000	-9,000
2032	1,956,000	1,000	0	-1,000	-9,000

**Table 858 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Honda)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Honda)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,517,000	-2,000	-1,000	-1,000	-4,000
2028	1,530,000	-2,000	-2,000	-2,000	-7,000
2029	1,508,000	-1,000	-3,000	-3,000	-9,000
2030	1,476,000	-1,000	-3,000	-3,000	-9,000
2031	1,453,000	-2,000	-3,000	-3,000	-7,000
2032	1,446,000	-1,000	-2,000	-3,000	-6,000

**Table 859 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Hyundai Kia-H)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Hyundai Kia-H)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	923,000	-1,000	-1,000	-1,000	-3,000
2028	930,000	-1,000	-1,000	-1,000	-5,000
2029	916,000	-1,000	-2,000	-2,000	-6,000
2030	897,000	-1,000	-2,000	-2,000	-6,000
2031	884,000	-1,000	-2,000	-2,000	-4,000
2032	880,000	-1,000	-2,000	-2,000	-4,000

**Table 860 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Hyundai Kia-K)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Hyundai Kia-K)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	636,000	-1,000	-1,000	-1,000	-2,000
2028	642,000	-1,000	-1,000	-1,000	-3,000
2029	632,000	-1,000	-1,000	-1,000	-4,000
2030	619,000	-1,000	-1,000	-1,000	-4,000
2031	610,000	-1,000	-1,000	-2,000	-3,000
2032	607,000	-1,000	-1,000	-1,000	-3,000

**Table 861 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (JLR)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (JLR)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	87,000	0	0	0	0
2028	88,000	0	0	0	0
2029	87,000	0	0	0	0
2030	85,000	0	0	0	0
2031	83,000	0	0	0	0
2032	82,000	0	0	0	0

**Table 862 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Karma)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Karma)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	0	0	0	0	0
2028	0	0	0	0	0
2029	0	0	0	0	0
2030	0	0	0	0	0
2031	0	0	0	0	0
2032	0	0	0	0	0



**Table 863 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Lucid)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Lucid)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	4,000	0	0	0	0
2028	4,000	0	0	0	0
2029	3,000	0	0	0	0
2030	3,000	0	0	0	0
2031	3,000	0	0	0	0
2032	3,000	0	0	0	0

**Table 864 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mazda)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mazda)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	201,000	0	0	0	0
2028	204,000	0	0	0	0
2029	201,000	0	0	0	-1,000
2030	196,000	0	0	0	-1,000
2031	192,000	0	0	0	-1,000
2032	191,000	0	0	0	-1,000

**Table 865 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mercedes-Benz)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mercedes-Benz)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	284,000	0	0	0	-1,000
2028	286,000	0	0	0	-1,000
2029	282,000	0	0	0	-2,000
2030	276,000	0	0	0	-2,000
2031	272,000	0	0	-1,000	-1,000
2032	270,000	0	0	0	-1,000

**Table 866 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mitsubishi)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Mitsubishi)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	119,000	0	0	0	0
2028	120,000	0	0	0	-1,000
2029	118,000	0	0	0	-1,000
2030	116,000	0	0	0	-1,000
2031	114,000	0	0	0	-1,000
2032	113,000	0	0	0	0

**Table 867 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Nissan)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Nissan)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,033,000	-1,000	-1,000	-1,000	-3,000
2028	1,042,000	-1,000	-1,000	-1,000	-5,000
2029	1,026,000	-1,000	-2,000	-2,000	-7,000
2030	1,005,000	-1,000	-2,000	-2,000	-6,000
2031	990,000	-1,000	-2,000	-2,000	-5,000
2032	986,000	-1,000	-2,000	-2,000	-4,000

**Table 868 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Stellantis)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Stellantis)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	1,832,000	0	-2,000	-3,000	-4,000
2028	1,855,000	1,000	0	-2,000	-3,000
2029	1,832,000	2,000	1,000	-1,000	-5,000
2030	1,789,000	1,000	1,000	0	-8,000
2031	1,752,000	1,000	1,000	0	-7,000
2032	1,741,000	1,000	0	0	-8,000

**Table 869 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Subaru)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Subaru)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	860,000	0	-1,000	-2,000	-2,000
2028	871,000	1,000	0	-1,000	-2,000
2029	860,000	1,000	0	0	-3,000
2030	840,000	1,000	0	0	-4,000
2031	823,000	0	0	0	-3,000
2032	818,000	1,000	0	0	-4,000

**Table 870 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Tesla)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Tesla)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	474,000	-1,000	0	0	-2,000
2028	476,000	-2,000	-1,000	-1,000	-4,000
2029	468,000	-2,000	-2,000	-2,000	-5,000
2030	459,000	-1,000	-2,000	-2,000	-4,000
2031	455,000	-1,000	-2,000	-2,000	-3,000
2032	454,000	-1,000	-2,000	-2,000	-2,000



**Table 871 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Toyota)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Toyota)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	2,553,000	-2,000	-3,000	-3,000	-7,000
2028	2,578,000	-1,000	-2,000	-3,000	-10,000
2029	2,542,000	-1,000	-3,000	-4,000	-13,000
2030	2,486,000	-1,000	-3,000	-3,000	-14,000
2031	2,443,000	-1,000	-3,000	-4,000	-11,000
2032	2,431,000	-1,000	-2,000	-4,000	-11,000

**Table 872 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Volvo)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (Volvo)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	145,000	0	0	0	0
2028	147,000	0	0	0	0
2029	145,000	0	0	0	-1,000
2030	142,000	0	0	0	-1,000
2031	139,000	0	0	0	-1,000
2032	138,000	0	0	0	-1,000

**Table 873 - Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (VWA)**

<b>Estimated Sales Impacts by Alternative, Total Fleet for Manufacturer (VWA)</b>					
Model Year	Regulatory Alternative				
	No Action (Baseline)	PC1LT3	PC2LT4	PC13LT5	PC6LT8
2027	664,000	0	-1,000	-1,000	-2,000
2028	670,000	0	-1,000	-1,000	-2,000
2029	661,000	0	-1,000	-1,000	-3,000
2030	646,000	0	-1,000	-1,000	-4,000
2031	635,000	0	-1,000	-1,000	-3,000
2032	632,000	0	-1,000	-1,000	-3,000

## Regulatory Costs per Vehicle, by Vehicle Type

**Table 874 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Total)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Total)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,183	2,995	2,734
Alternative PC1LT3	2,392	3,125	2,891
Alternative PC2LT4	2,461	3,301	3,032
Alternative PC3LT5	2,593	3,570	3,258
Alternative PC6LT8	3,331	4,858	4,368

**Table 875 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (BMW)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (BMW)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	1,784	2,816	2,323
Alternative PC1LT3	1,786	3,040	2,443
Alternative PC2LT4	1,786	3,238	2,547
Alternative PC3LT5	1,786	2,675	2,252
Alternative PC6LT8	2,923	4,334	3,660

**Table 876 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Ford)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Ford)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	1,076	3,118	2,930
Alternative PC1LT3	2,092	3,112	3,019
Alternative PC2LT4	1,168	3,418	3,212
Alternative PC3LT5	1,491	3,829	3,615
Alternative PC6LT8	3,068	5,233	5,034

**Table 877 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (GM)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (GM)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	3,032	3,153	3,129
Alternative PC1LT3	3,734	3,843	3,821
Alternative PC2LT4	3,718	3,868	3,837
Alternative PC3LT5	3,877	4,104	4,058
Alternative PC6LT8	4,328	5,340	5,135

**Table 878 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Honda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Honda)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	1,855	2,298	2,088
Alternative PC1LT3	2,381	2,307	2,342
Alternative PC2LT4	2,223	2,409	2,321
Alternative PC3LT5	2,179	3,106	2,667
Alternative PC6LT8	2,695	3,793	3,271



**Table 879 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Hyundai Kia-H)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Hyundai Kia-H)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,362	3,212	2,746
Alternative PC1LT3	2,602	3,386	2,957
Alternative PC2LT4	3,111	3,392	3,238
Alternative PC3LT5	3,355	3,377	3,365
Alternative PC6LT8	5,948	5,437	5,717

**Table 880 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Hyundai Kia-K)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Hyundai Kia-K)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	3,097	2,013	2,572
Alternative PC1LT3	3,101	2,407	2,764
Alternative PC2LT4	3,265	2,772	3,026
Alternative PC3LT5	3,490	3,120	3,310
Alternative PC6LT8	4,452	4,323	4,390

**Table 881 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (JLR)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (JLR)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,234	1,804	1,813
Alternative PC1LT3	2,278	2,262	2,262
Alternative PC2LT4	2,466	2,775	2,769
Alternative PC3LT5	2,488	2,856	2,848
Alternative PC6LT8	2,611	4,113	4,082

**Table 882 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Karma)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Karma)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	-3,543	0	-3,543
Alternative PC1LT3	-3,543	0	-3,543
Alternative PC2LT4	-3,543	0	-3,543
Alternative PC3LT5	-3,543	0	-3,543
Alternative PC6LT8	-3,543	0	-3,543

**Table 883 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Lucid)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Lucid)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	-62	0	-62
Alternative PC1LT3	-62	0	-62
Alternative PC2LT4	-62	0	-62
Alternative PC3LT5	-62	0	-62
Alternative PC6LT8	-62	0	-62

**Table 884 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mazda)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mazda)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,993	3,634	3,555
Alternative PC1LT3	3,020	3,667	3,587
Alternative PC2LT4	12,188	7,201	7,815
Alternative PC3LT5	12,190	7,215	7,827
Alternative PC6LT8	12,012	7,477	8,039

**Table 885 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mercedes-Benz)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mercedes-Benz)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,056	4,519	3,448
Alternative PC1LT3	2,159	4,504	3,487
Alternative PC2LT4	2,495	4,670	3,726
Alternative PC3LT5	2,577	4,561	3,700
Alternative PC6LT8	2,959	5,034	4,131

**Table 886 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mitsubishi)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Mitsubishi)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	1,502	3,436	2,476
Alternative PC1LT3	1,505	3,836	2,682
Alternative PC2LT4	1,559	2,279	1,923
Alternative PC3LT5	1,943	5,250	3,614
Alternative PC6LT8	3,898	4,075	3,987



**Table 887 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Nissan)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Nissan)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,566	4,133	3,315
Alternative PC1LT3	2,639	4,133	3,355
Alternative PC2LT4	2,761	4,180	3,442
Alternative PC3LT5	3,175	4,122	3,629
Alternative PC6LT8	3,890	5,369	4,597

**Table 888 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Stellantis)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Stellantis)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	4,053	3,489	3,551
Alternative PC1LT3	4,265	3,358	3,458
Alternative PC2LT4	4,142	3,597	3,657
Alternative PC3LT5	4,541	4,114	4,161
Alternative PC6LT8	4,876	5,875	5,764

**Table 889 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Subaru)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Subaru)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	3,259	2,121	2,268
Alternative PC1LT3	3,253	2,190	2,327
Alternative PC2LT4	3,253	2,190	2,327
Alternative PC3LT5	3,253	2,289	2,413
Alternative PC6LT8	3,509	3,335	3,357

**Table 890 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Tesla)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Tesla)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	0	226	13
Alternative PC1LT3	0	226	13
Alternative PC2LT4	0	226	13
Alternative PC3LT5	0	226	13
Alternative PC6LT8	0	226	13

**Table 891 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Toyota)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Toyota)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,232	2,405	2,343
Alternative PC1LT3	2,237	2,339	2,303
Alternative PC2LT4	2,237	2,339	2,303
Alternative PC3LT5	2,246	2,489	2,403
Alternative PC6LT8	2,404	3,880	3,355

**Table 892 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Volvo)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (Volvo)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	287	3,489	2,627
Alternative PC1LT3	288	3,580	2,696
Alternative PC2LT4	378	3,580	2,721
Alternative PC3LT5	567	3,586	2,776
Alternative PC6LT8	1,509	3,239	2,773

**Table 893 - Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (VWA)**

<b>Estimated Average Per Vehicle Regulatory Costs (\$) for MY 2032, by Alternative for Manufacturer (VWA)</b>			
	Passenger Cars	Light Trucks	Total Fleet
No Action Alternative (Baseline)	2,618	3,773	3,364
Alternative PC1LT3	2,544	4,279	3,666
Alternative PC2LT4	2,541	4,405	3,746
Alternative PC3LT5	2,627	4,212	3,652
Alternative PC6LT8	3,549	5,350	4,711

**Table 894 - Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Total Fleet, by Alternative**

<b>Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Total Fleet, by Alternative</b>				
	Lifetime Fuel Expenditures		Lifetime Increase	
	7% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate
No Action Alternative (Baseline)	9,176	11,801	0	0
Alternative PC1LT3	8,965	11,533	-211	-269
Alternative PC2LT4	8,822	11,349	-354	-453
Alternative PC3LT5	8,524	10,964	-651	-837
Alternative PC6LT8	7,167	9,203	-2,009	-2,598



**Table 895 - Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Passenger Car Fleet, by Alternative**

<b>Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Passenger Car Fleet, by Alternative</b>				
	Lifetime Fuel Expenditures		Lifetime Increase	
	7% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate
No Action Alternative (Baseline)	5,913	7,501	0	0
Alternative PC1LT3	5,707	7,236	-206	-265
Alternative PC2LT4	5,704	7,232	-209	-269
Alternative PC3LT5	5,618	7,121	-295	-380
Alternative PC6LT8	4,881	6,176	-1,032	-1,325

**Table 896 - Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Light Truck Fleet, by Alternative**

<b>Estimated Average Per Vehicle Fuel Costs (\$) for MY 2032 Light Truck Fleet, by Alternative</b>				
	Lifetime Fuel Expenditures		Lifetime Increase	
	7% Discount Rate	3% Discount Rate	7% Discount Rate	3% Discount Rate
No Action Alternative (Baseline)	10,717	13,833	0	0
Alternative PC1LT3	10,496	13,553	-220	-279
Alternative PC2LT4	10,287	13,284	-429	-549
Alternative PC3LT5	9,889	12,770	-827	-1,063
Alternative PC6LT8	8,248	10,635	-2,469	-3,198

## Vehicle-Mass-Related Fatality Impacts

**Table 897 - Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Total Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Total Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	103	155	229	431
Fatality Costs (\$ Billion, 3% Discount Rate)	0.8	1.2	1.7	3.4
Fatality Costs (\$ Billion, 7% Discount Rate)	0.4	0.7	1.0	2.0
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	-0.1	0.0	0.0
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	0.0	0.0	0.0
Total Crash Costs (\$ Billion, 3% Discount Rate)	0.8	1.1	1.7	3.4
Total Crash Costs (\$ Billion, 7% Discount Rate)	0.4	0.6	1.0	2.0

**Table 898 - Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Passenger Car Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Passenger Car Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	-63	-50	-13	66
Fatality Costs (\$ Billion, 3% Discount Rate)	-0.5	-0.3	0.0	0.6
Fatality Costs (\$ Billion, 7% Discount Rate)	-0.2	-0.2	0.0	0.4
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	0.0	0.0	0.0
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	0.0	0.0	0.0
Total Crash Costs (\$ Billion, 3% Discount Rate)	-0.5	-0.3	0.0	0.7
Total Crash Costs (\$ Billion, 7% Discount Rate)	-0.2	-0.2	0.0	0.5

**Table 899 - Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Light Truck Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts over the Lifetime of MY 1981-2032 for Light Truck Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	167	205	242	365
Fatality Costs (\$ Billion, 3% Discount Rate)	1.2	1.5	1.8	2.8
Fatality Costs (\$ Billion, 7% Discount Rate)	0.7	0.8	1.0	1.5
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	-0.1	0.0	-0.1
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	0.0	0.0	0.0
Total Crash Costs (\$ Billion, 3% Discount Rate)	1.2	1.4	1.7	2.7
Total Crash Costs (\$ Billion, 7% Discount Rate)	0.7	0.8	0.9	1.5

**Table 900 - Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Total Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Total Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	90	136	248	546
Fatality Costs (\$ Billion, 3% Discount Rate)	0.6	0.9	1.6	3.5
Fatality Costs (\$ Billion, 7% Discount Rate)	0.2	0.4	0.7	1.5
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	0.0	0.0	0.1
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	0.0	0.0	0.1
Total Crash Costs (\$ Billion, 3% Discount Rate)	0.5	0.8	1.6	3.6
Total Crash Costs (\$ Billion, 7% Discount Rate)	0.2	0.3	0.7	1.5

**Table 901 - Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Passenger Car Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Passenger Car Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	-94	-86	-48	194
Fatality Costs (\$ Billion, 3% Discount Rate)	-0.6	-0.5	-0.3	1.2
Fatality Costs (\$ Billion, 7% Discount Rate)	-0.3	-0.2	-0.1	0.5
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	0.1	0.1	0.3
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	0.0	0.0	0.1
Total Crash Costs (\$ Billion, 3% Discount Rate)	-0.6	-0.5	-0.2	1.5
Total Crash Costs (\$ Billion, 7% Discount Rate)	-0.3	-0.2	-0.1	0.7

**Table 902 - Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Light Truck Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%**

<b>Vehicle-Mass-Related Fatality Impacts for CY 2039-2048 for Light Truck Fleet, Compared to Alternative 0 (Baseline) - Fatalities Undiscounted, Dollars Discounted at 3% and 7%</b>				
Category	Regulatory Alternative			
	PC1LT3	PC2LT4	PC13LT5	PC6LT8
Fatalities	184	221	296	352
Fatality Costs (\$ Billion, 3% Discount Rate)	1.2	1.4	1.9	2.2
Fatality Costs (\$ Billion, 7% Discount Rate)	0.5	0.6	0.8	1.0
Non-Fatal Crash Costs (\$ Billion, 3% Discount Rate)	0.0	-0.1	-0.1	-0.2
Non-Fatal Crash Costs (\$ Billion, 7% Discount Rate)	0.0	-0.1	0.0	-0.1
Total Crash Costs (\$ Billion, 3% Discount Rate)	1.1	1.3	1.7	2.0
Total Crash Costs (\$ Billion, 7% Discount Rate)	0.5	0.5	0.8	0.9



**Table 903 - Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), Undiscounted**

Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), Undiscounted							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0	0	0	0	0	0	0
Light Trucks	0	0	0	0	0	0	0
Total	0	0	0	0	0	0	0

**Table 904 - Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), Undiscounted**

Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), Undiscounted							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	25	-8	-19	-20	-21	-11	-54
Light Trucks	16	28	39	38	37	33	190
Total	41	19	21	18	16	21	136

**Table 905 - Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), Undiscounted**

Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), Undiscounted							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	37	-2	-14	-15	-18	-13	-24
Light Trucks	22	25	39	46	50	48	230
Total	59	23	25	32	32	35	206

**Table 906 - Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), Undiscounted**

<b>Incremental Vehicle-Mass-Related Fatality Impacts by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), Undiscounted</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	128	-26	-34	-17	-4	11	58
Light Trucks	85	47	46	32	54	62	327
Total	213	21	13	16	50	72	385

**Table 907 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), 3% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), 3% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Light Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table 908 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC1LT3 Compared to Alternative 0 (Baseline), 3% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC1LT3 Compared to Alternative 0 (Baseline), 3% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-0.4
Light Trucks	0.0	0.2	0.2	0.2	0.2	0.2	1.1
Total	0.1	0.1	0.1	0.1	0.1	0.1	0.7

**Table 909 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), 3% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), 3% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.2	-0.1	-0.1	-0.1	-0.1	-0.1	-0.4
Light Trucks	0.1	0.2	0.3	0.3	0.3	0.2	1.4
Total	0.3	0.1	0.2	0.1	0.1	0.1	1.0

**Table 910 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), 3% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), 3% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.3	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
Light Trucks	0.2	0.2	0.3	0.3	0.4	0.3	1.7
Total	0.5	0.2	0.2	0.2	0.2	0.2	1.6



**Table 911 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), 3% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), 3% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	1.1	-0.2	-0.2	-0.1	0.0	0.1	0.6
Light Trucks	0.7	0.4	0.3	0.2	0.4	0.4	2.5
Total	1.8	0.2	0.1	0.1	0.4	0.5	3.0

**Table 912 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), 7% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, No Action Alternative (Baseline) Compared to Alternative 0 (Baseline), 7% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Light Trucks	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total	0.0	0.0	0.0	0.0	0.0	0.0	0.0

**Table 913 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC1LT3 Compared to Alternative 0 (Baseline), 7% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC1LT3 Compared to Alternative 0 (Baseline), 7% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.0	-0.1	-0.1	0.0	0.0	0.0	-0.2
Light Trucks	0.0	0.1	0.1	0.1	0.1	0.1	0.6
Total	0.0	0.1	0.1	0.1	0.1	0.1	0.4

**Table 914 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), 7% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC2LT4 Compared to Alternative 0 (Baseline), 7% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.1	0.0	-0.1	-0.1	-0.1	0.0	-0.2
Light Trucks	0.1	0.1	0.2	0.1	0.1	0.1	0.8
Total	0.2	0.1	0.1	0.1	0.1	0.1	0.6

**Table 915 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), 7% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC3LT5 Compared to Alternative 0 (Baseline), 7% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.2	0.0	-0.1	-0.1	-0.1	0.0	0.0
Light Trucks	0.1	0.1	0.2	0.2	0.2	0.2	0.9
Total	0.3	0.1	0.1	0.1	0.1	0.1	0.9

**Table 916 - Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), 7% Discount Rate**

<b>Incremental Vehicle-Mass-Related Fatality Costs (\$ billion) by Model Year and Fleet, Alternative PC6LT8 Compared to Alternative 0 (Baseline), 7% Discount Rate</b>							
Model Year	1981-2022	2028	2029	2030	2031	2032	Total
Passenger Cars	0.7	-0.1	-0.1	-0.1	0.0	0.0	0.4
Light Trucks	0.4	0.2	0.2	0.1	0.2	0.2	1.4
Total	1.1	0.1	0.1	0.1	0.2	0.3	1.8

## Change in Safety Parameters

**Table 917 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-2	-11	-4	-5
Fatalities from Rebound Effect	88	126	187	340
Fatalities from Sales/Scrappage	18	40	46	96
Total Changes in Fatalities	103	155	229	431
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.7	0.9	1.4	2.5
Fatality Costs From Rebound Effect	0.7	0.9	1.4	2.5
Fatality Costs from Sales/Scrappage	-0.5	-0.7	-1.0	-1.6
Total - Fatality Costs (\$b)	0.8	1.2	1.7	3.4
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	1.3	1.9	2.7	5.0
Non-Fatal Crash Costs From Rebound Effect	1.5	2.2	3.3	6.2
Non-Fatal Crash Costs from Sales/Scrappage	-2.8	-4.2	-6.1	-11.2
Total - Non-Fatal Crash Costs (\$b)	0.0	-0.1	0.0	0.0
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.2	0.3	0.4	0.8
Property Damage Costs From Rebound Effect	0.2	0.3	0.5	0.8
Property Damage Costs From Sales/Scrappage	-0.5	-0.8	-1.0	-1.7
Total - Property Damage Costs (\$b)	0.0	-0.2	-0.1	-0.1
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	2.2	3.1	4.6	8.3
Crash Costs from Rebound Effect	2.4	3.5	5.2	9.5
Crash Costs from Sales/Scrappage	-3.8	-5.6	-8.1	-14.5
Total - Societal Crash Costs (\$b)	0.7	0.9	1.7	3.3

**Table 918 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	0	-1	1	5
Fatalities from Rebound Effect	12	16	22	56
Fatalities from Sales/Scrappage	-76	-65	-36	4
Total Changes in Fatalities	-63	-50	-13	66
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.1	0.1	0.2	0.4
Fatality Costs From Rebound Effect	0.1	0.1	0.2	0.4
Fatality Costs from Sales/Scrappage	-0.6	-0.6	-0.4	-0.2
Total - Fatality Costs (\$b)	-0.5	-0.3	0.0	0.6
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.2	0.2	0.3	0.8
Non-Fatal Crash Costs From Rebound Effect	-0.9	-0.7	-0.1	1.0
Non-Fatal Crash Costs from Sales/Scrappage	0.7	0.5	-0.2	-1.8
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.0
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.0	0.0	0.1	0.1
Property Damage Costs From Rebound Effect	-0.2	-0.1	-0.1	0.1
Property Damage Costs From Sales/Scrappage	0.1	0.1	0.0	-0.1
Total - Property Damage Costs (\$b)	0.0	0.0	0.0	0.1
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.3	0.4	0.5	1.4
Crash Costs from Rebound Effect	-1.0	-0.7	0.0	1.5
Crash Costs from Sales/Scrappage	0.2	0.0	-0.5	-2.1
Total - Societal Crash Costs (\$b)	-0.5	-0.3	0.0	0.7



**Table 919 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-3	-10	-6	-10
Fatalities from Rebound Effect	75	110	165	283
Fatalities from Sales/Scrappage	94	105	83	92
Total Changes in Fatalities	167	205	242	365
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.6	0.8	1.2	2.1
Fatality Costs From Rebound Effect	0.6	0.8	1.2	2.1
Fatality Costs from Sales/Scrappage	0.1	-0.1	-0.7	-1.4
Total - Fatality Costs (\$b)	1.2	1.5	1.8	2.8
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	1.1	1.6	2.4	4.1
Non-Fatal Crash Costs From Rebound Effect	2.4	2.9	3.5	5.2
Non-Fatal Crash Costs from Sales/Scrappage	-3.6	-4.6	-5.9	-9.4
Total - Non-Fatal Crash Costs (\$b)	0.0	-0.1	0.0	-0.1
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.2	0.3	0.4	0.7
Property Damage Costs From Rebound Effect	0.4	0.5	0.5	0.8
Property Damage Costs From Sales/Scrappage	-0.6	-0.9	-1.0	-1.6
Total - Property Damage Costs (\$b)	0.0	-0.1	-0.1	-0.1
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	1.9	2.7	4.0	6.9
Crash Costs from Rebound Effect	3.4	4.2	5.2	8.1
Crash Costs from Sales/Scrappage	-4.1	-5.6	-7.6	-12.4
Total - Societal Crash Costs (\$b)	1.2	1.3	1.7	2.6

**Table 920 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-2	-11	-4	-5
Fatalities from Rebound Effect	88	126	187	340
Fatalities from Sales/Scrappage	18	40	46	96
Total Changes in Fatalities	103	155	229	431
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.4	0.5	0.8	1.4
Fatality Costs From Rebound Effect	0.4	0.5	0.8	1.4
Fatality Costs from Sales/Scrappage	-0.3	-0.4	-0.5	-0.8
Total - Fatality Costs (\$b)	0.4	0.7	1.0	2.0
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.7	1.0	1.5	2.7
Non-Fatal Crash Costs From Rebound Effect	0.8	1.3	1.9	3.6
Non-Fatal Crash Costs from Sales/Scrappage	-1.6	-2.3	-3.4	-6.4
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.0
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.1	0.2	0.3	0.5
Property Damage Costs From Rebound Effect	0.1	0.2	0.3	0.5
Property Damage Costs From Sales/Scrappage	-0.3	-0.4	-0.6	-1.0
Total - Property Damage Costs (\$b)	0.0	-0.1	0.0	0.0
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	1.2	1.7	2.6	4.6
Crash Costs from Rebound Effect	1.3	2.0	2.9	5.5
Crash Costs from Sales/Scrappage	-2.2	-3.2	-4.5	-8.1
Total - Societal Crash Costs (\$b)	0.4	0.5	0.9	1.9

**Table 921 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	0	-1	1	5
Fatalities from Rebound Effect	12	16	22	56
Fatalities from Sales/Scrappage	-76	-65	-36	4
Total Changes in Fatalities	-63	-50	-13	66
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.1	0.1	0.1	0.2
Fatality Costs From Rebound Effect	0.1	0.1	0.1	0.2
Fatality Costs from Sales/Scrappage	-0.4	-0.3	-0.2	0.0
Total - Fatality Costs (\$b)	-0.2	-0.2	0.0	0.4
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.1	0.1	0.2	0.5
Non-Fatal Crash Costs From Rebound Effect	-0.5	-0.3	0.0	0.7
Non-Fatal Crash Costs from Sales/Scrappage	0.4	0.2	-0.2	-1.2
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.0
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.0	0.0	0.0	0.1
Property Damage Costs From Rebound Effect	-0.1	-0.1	0.0	0.0
Property Damage Costs From Sales/Scrappage	0.1	0.0	0.0	-0.1
Total - Property Damage Costs (\$b)	0.0	0.0	0.0	0.0
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.2	0.2	0.3	0.8
Crash Costs from Rebound Effect	-0.5	-0.4	0.1	1.0
Crash Costs from Sales/Scrappage	0.1	0.0	-0.3	-1.3
Total - Societal Crash Costs (\$b)	-0.2	-0.2	0.0	0.5

**Table 922 - Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-3	-10	-6	-10
Fatalities from Rebound Effect	75	110	165	283
Fatalities from Sales/Scrappage	94	105	83	92
Total Changes in Fatalities	167	205	242	365
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.3	0.5	0.7	1.1
Fatality Costs From Rebound Effect	0.3	0.5	0.7	1.1
Fatality Costs from Sales/Scrappage	0.0	-0.1	-0.4	-0.7
Total - Fatality Costs (\$b)	0.7	0.8	1.0	1.5
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.6	0.9	1.4	2.3
Non-Fatal Crash Costs From Rebound Effect	1.3	1.6	1.9	2.9
Non-Fatal Crash Costs from Sales/Scrappage	-2.0	-2.6	-3.3	-5.2
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.0
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.1	0.2	0.2	0.4
Property Damage Costs From Rebound Effect	0.2	0.3	0.3	0.4
Property Damage Costs From Sales/Scrappage	-0.3	-0.5	-0.6	-0.9
Total - Property Damage Costs (\$b)	0.0	-0.1	0.0	-0.1
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	1.0	1.5	2.3	3.8
Crash Costs from Rebound Effect	1.9	2.3	2.9	4.5
Crash Costs from Sales/Scrappage	-2.3	-3.2	-4.2	-6.8
Total - Societal Crash Costs (\$b)	0.6	0.7	0.9	1.4

**Table 923 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-6	-7	0	22
Fatalities from Rebound Effect	94	147	255	565
Fatalities from Sales/Scrappage	2	-4	-7	-40
Total Changes in Fatalities	90	136	248	546
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.6	0.9	1.6	3.6
Fatality Costs From Rebound Effect	0.6	0.9	1.6	3.6
Fatality Costs from Sales/Scrappage	-0.6	-1.0	-1.6	-3.7
Total - Fatality Costs (\$b)	0.6	0.9	1.6	3.5
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	1.2	1.8	3.2	7.1
Non-Fatal Crash Costs From Rebound Effect	1.1	1.7	3.1	6.9
Non-Fatal Crash Costs from Sales/Scrappage	-2.3	-3.6	-6.3	-13.8
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.1
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.2	0.3	0.5	1.2
Property Damage Costs From Rebound Effect	0.2	0.3	0.5	1.2
Property Damage Costs From Sales/Scrappage	-0.4	-0.7	-1.0	-2.1
Total - Property Damage Costs (\$b)	-0.1	-0.1	0.0	0.3
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	2.0	3.1	5.3	11.8
Crash Costs from Rebound Effect	1.9	2.9	5.2	11.6
Crash Costs from Sales/Scrappage	-3.4	-5.2	-9.0	-19.6
Total - Societal Crash Costs (\$b)	0.5	0.7	1.6	3.9

**Table 924 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	0	14	18	53
Fatalities from Rebound Effect	14	19	26	96
Fatalities from Sales/Scrappage	-108	-118	-92	45
Total Changes in Fatalities	-94	-86	-48	194
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.1	0.1	0.2	0.6
Fatality Costs From Rebound Effect	0.1	0.1	0.2	0.6
Fatality Costs from Sales/Scrappage	-0.8	-0.8	-0.6	0.0
Total - Fatality Costs (\$b)	-0.6	-0.5	-0.3	1.2
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.2	0.2	0.3	1.2
Non-Fatal Crash Costs From Rebound Effect	-1.2	-1.1	-0.6	2.5
Non-Fatal Crash Costs from Sales/Scrappage	1.0	0.9	0.4	-3.4
Total - Non-Fatal Crash Costs (\$b)	0.0	0.1	0.1	0.3
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.0	0.0	0.1	0.2
Property Damage Costs From Rebound Effect	-0.2	-0.2	-0.1	0.4
Property Damage Costs From Sales/Scrappage	0.2	0.3	0.3	0.0
Total - Property Damage Costs (\$b)	0.0	0.2	0.2	0.7
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.3	0.4	0.5	2.0
Crash Costs from Rebound Effect	-1.3	-1.1	-0.5	3.5
Crash Costs from Sales/Scrappage	0.4	0.4	0.0	-3.3
Total - Societal Crash Costs (\$b)	-0.6	-0.3	0.1	2.2

**Table 925 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, 3% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, 3% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-6	-21	-19	-31
Fatalities from Rebound Effect	80	128	229	469
Fatalities from Sales/Scrappage	111	114	85	-85
Total Changes in Fatalities	184	221	296	352
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.5	0.8	1.4	2.9
Fatality Costs From Rebound Effect	0.5	0.8	1.4	2.9
Fatality Costs from Sales/Scrappage	0.2	-0.2	-1.0	-3.7
Total - Fatality Costs (\$b)	1.2	1.4	1.9	2.2
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	1.0	1.6	2.9	5.9
Non-Fatal Crash Costs From Rebound Effect	2.3	2.8	3.7	4.4
Non-Fatal Crash Costs from Sales/Scrappage	-3.3	-4.5	-6.7	-10.5
Total - Non-Fatal Crash Costs (\$b)	0.0	-0.1	-0.1	-0.2
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.2	0.3	0.5	1.0
Property Damage Costs From Rebound Effect	0.4	0.4	0.6	0.7
Property Damage Costs From Sales/Scrappage	-0.6	-1.0	-1.3	-2.1
Total - Property Damage Costs (\$b)	-0.1	-0.3	-0.2	-0.4
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	1.7	2.7	4.8	9.8
Crash Costs from Rebound Effect	3.2	4.0	5.7	8.1
Crash Costs from Sales/Scrappage	-3.8	-5.7	-9.0	-16.2
Total - Societal Crash Costs (\$b)	1.0	1.0	1.5	1.6

**Table 926 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-6	-7	0	22
Fatalities from Rebound Effect	94	147	255	565
Fatalities from Sales/Scrappage	2	-4	-7	-40
Total Changes in Fatalities	90	136	248	546
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.3	0.4	0.7	1.5
Fatality Costs From Rebound Effect	0.3	0.4	0.7	1.5
Fatality Costs from Sales/Scrappage	-0.3	-0.4	-0.7	-1.6
Total - Fatality Costs (\$b)	0.2	0.4	0.7	1.5
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.5	0.8	1.4	3.1
Non-Fatal Crash Costs From Rebound Effect	0.5	0.7	1.3	3.0
Non-Fatal Crash Costs from Sales/Scrappage	-1.0	-1.5	-2.7	-6.0
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.1
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.1	0.1	0.2	0.5
Property Damage Costs From Rebound Effect	0.1	0.1	0.2	0.5
Property Damage Costs From Sales/Scrappage	-0.2	-0.3	-0.4	-0.9
Total - Property Damage Costs (\$b)	0.0	0.0	0.0	0.1
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.8	1.3	2.3	5.1
Crash Costs from Rebound Effect	0.8	1.2	2.3	5.0
Crash Costs from Sales/Scrappage	-1.5	-2.2	-3.9	-8.4
Total - Societal Crash Costs (\$b)	0.2	0.3	0.7	1.7



**Table 927 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	0	14	18	53
Fatalities from Rebound Effect	14	19	26	96
Fatalities from Sales/Scrappage	-108	-118	-92	45
Total Changes in Fatalities	-94	-86	-48	194
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.0	0.1	0.1	0.3
Fatality Costs From Rebound Effect	0.0	0.1	0.1	0.3
Fatality Costs from Sales/Scrappage	-0.3	-0.3	-0.3	0.0
Total - Fatality Costs (\$b)	-0.3	-0.2	-0.1	0.5
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.1	0.1	0.1	0.5
Non-Fatal Crash Costs From Rebound Effect	-0.5	-0.5	-0.2	1.1
Non-Fatal Crash Costs from Sales/Scrappage	0.4	0.4	0.2	-1.4
Total - Non-Fatal Crash Costs (\$b)	0.0	0.0	0.0	0.1
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.0	0.0	0.0	0.1
Property Damage Costs From Rebound Effect	-0.1	-0.1	0.0	0.2
Property Damage Costs From Sales/Scrappage	0.1	0.1	0.1	0.0
Total - Property Damage Costs (\$b)	0.0	0.1	0.1	0.3
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.1	0.2	0.2	0.9
Crash Costs from Rebound Effect	-0.5	-0.5	-0.2	1.5
Crash Costs from Sales/Scrappage	0.2	0.2	0.0	-1.4
Total - Societal Crash Costs (\$b)	-0.3	-0.1	0.0	0.9

**Table 928 - Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, 7% Percent Discount Rate, by Alternative**

<b>Change in Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, 7% Percent Discount Rate, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Fatalities</b>				
Fatalities From Mass Changes	-6	-21	-19	-31
Fatalities from Rebound Effect	80	128	229	469
Fatalities from Sales/Scrappage	111	114	85	-85
Total Changes in Fatalities	184	221	296	352
<b>Fatality Costs (\$b)</b>				
Fatality Costs From Mass Changes	0.2	0.3	0.6	1.3
Fatality Costs From Rebound Effect	0.2	0.3	0.6	1.3
Fatality Costs from Sales/Scrappage	0.1	-0.1	-0.4	-1.6
Total - Fatality Costs (\$b)	0.5	0.6	0.8	1.0
<b>Non-Fatal Crash Costs (\$b)</b>				
Non-Fatal Crash Costs From Mass Changes	0.4	0.7	1.2	2.5
Non-Fatal Crash Costs From Rebound Effect	1.0	1.2	1.6	1.9
Non-Fatal Crash Costs from Sales/Scrappage	-1.4	-1.9	-2.9	-4.5
Total - Non-Fatal Crash Costs (\$b)	0.0	-0.1	0.0	-0.1
<b>Property Damage Costs (\$b)</b>				
Property Damage Costs From Mass Changes	0.1	0.1	0.2	0.4
Property Damage Costs From Rebound Effect	0.2	0.2	0.3	0.3
Property Damage Costs From Sales/Scrappage	-0.3	-0.4	-0.6	-0.9
Total - Property Damage Costs (\$b)	0.0	-0.1	-0.1	-0.2
<b>Societal Crash Costs (\$b)</b>				
Crash Costs from Mass Changes	0.7	1.1	2.1	4.2
Crash Costs from Rebound Effect	1.4	1.7	2.5	3.5
Crash Costs from Sales/Scrappage	-1.6	-2.4	-3.9	-7.0
Total - Societal Crash Costs (\$b)	0.5	0.4	0.7	0.7

**Table 929 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Total Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	-372	-1,704	-638	-700
Non-Fatal Injuries from Rebound Effect	13,706	19,669	29,179	53,067
Non-Fatal Injuries from Sales/Scrappage	2,539	5,210	5,955	10,808
<b>Total Changes in Non-Fatal Injuries</b>	<b>15,873</b>	<b>23,175</b>	<b>34,496</b>	<b>63,175</b>
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	-1,107	-5,132	-1,874	-1,985
Property Damaged Vehicles from Rebound Effect	42,730	61,274	90,924	165,287
Property Damaged Vehicles from Sales/Scrappage	5,839	8,047	7,939	-1,273
<b>Total Changes in Property Damaged Vehicles</b>	<b>47,462</b>	<b>64,189</b>	<b>96,989</b>	<b>162,029</b>

**Table 930 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Passenger Car Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	39	-92	228	807
Non-Fatal Injuries from Rebound Effect	1,944	2,443	3,398	8,868
Non-Fatal Injuries from Sales/Scrappage	-11,992	-10,707	-6,352	-1,625
Total Changes in Non-Fatal Injuries	-10,009	-8,357	-2,726	8,050
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	144	-229	761	2,601
Property Damaged Vehicles from Rebound Effect	6,102	7,618	10,658	27,981
Property Damaged Vehicles from Sales/Scrappage	-37,791	-36,729	-25,140	-23,421
Total Changes in Property Damaged Vehicles	-31,545	-29,340	-13,722	7,161

**Table 931 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for MY 1981-2032 for Light Truck Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	-411	-1,611	-866	-1,507
Non-Fatal Injuries from Rebound Effect	11,762	17,226	25,781	44,199
Non-Fatal Injuries from Sales/Scrappage	14,530	15,917	12,307	12,432
<b>Total Changes in Non-Fatal Injuries</b>	<b>25,882</b>	<b>31,531</b>	<b>37,222</b>	<b>55,125</b>
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	-1,251	-4,903	-2,635	-4,586
Property Damaged Vehicles from Rebound Effect	36,628	53,656	80,266	137,306
Property Damaged Vehicles from Sales/Scrappage	43,630	44,776	33,080	22,148
<b>Total Changes in Property Damaged Vehicles</b>	<b>79,007</b>	<b>93,529</b>	<b>110,711</b>	<b>154,868</b>

**Table 932 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Total Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	-992	-1,088	10	3,495
Non-Fatal Injuries from Rebound Effect	14,843	23,238	40,470	89,725
Non-Fatal Injuries from Sales/Scrappage	327	-762	-1,190	-6,281
<b>Total Changes in Non-Fatal Injuries</b>	<b>14,178</b>	<b>21,389</b>	<b>39,290</b>	<b>86,940</b>
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	-3,248	-3,055	170	12,643
Property Damaged Vehicles from Rebound Effect	46,568	74,918	130,102	290,177
Property Damaged Vehicles from Sales/Scrappage	802	-1,391	-2,098	-9,229
<b>Total Changes in Property Damaged Vehicles</b>	<b>44,122</b>	<b>70,472</b>	<b>128,175</b>	<b>293,590</b>

**Table 933 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Passenger Car Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	40	2,213	2,974	8,461
Non-Fatal Injuries from Rebound Effect	2,215	2,944	4,107	15,288
Non-Fatal Injuries from Sales/Scrappage	-17,082	-18,652	-14,635	7,543
Total Changes in Non-Fatal Injuries	-14,827	-13,494	-7,553	31,292
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	150	7,725	10,249	29,199
Property Damaged Vehicles from Rebound Effect	6,980	9,476	12,754	49,806
Property Damaged Vehicles from Sales/Scrappage	-52,843	-58,367	-46,373	29,841
Total Changes in Property Damaged Vehicles	-45,712	-41,166	-23,370	108,846

**Table 934 - Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, by Alternative**

<b>Change in Non-Fatal Safety Parameters from Alternative 0 (Baseline) for CY 2039-2048 for Light Truck Fleet, by Alternative</b>				
Alternative	PC1LT3	PC2LT4	PC13LT5	PC6LT8
<b>Non-Fatal Injuries</b>				
Non-Fatal Injuries From Mass Changes	-1,032	-3,301	-2,964	-4,966
Non-Fatal Injuries from Rebound Effect	12,628	20,294	36,363	74,437
Non-Fatal Injuries from Sales/Scrappage	17,409	17,890	13,444	-13,824
Total Changes in Non-Fatal Injuries	29,005	34,883	46,843	55,647
<b>Property Damaged Vehicles</b>				
Property Damaged Vehicles From Mass Changes	-3,399	-10,780	-10,079	-16,556
Property Damaged Vehicles from Rebound Effect	39,588	65,442	117,348	240,371
Property Damaged Vehicles from Sales/Scrappage	53,645	56,976	44,275	-39,071
Total Changes in Property Damaged Vehicles	89,834	111,638	151,545	184,745