ENTER/REPLACE DATA IN GREEN CELLS ONLY!

CALCULATED CAFE, GHG, AND LABEL VALUES

CAFE Values	City	Highway	Combined
✓ A. PHEV meets dual fuel criteria:	City	Highway	Combined
→ 1. Default 50/50 Composite MPGe	46.2902	58.0040	50.9174 ←
2. Optional Utility Factor Composite MPGe	47.7723	42.5497	45.2718
B. PHEV does NOT meet dual fuel criteria:	City	Highway	Combined
1. Utility Factor Composity MPGe	38.5562	39.2312	38.8571
Based on the all-electric range, is this PHEV a dual fuel vehicle for CAFE?			YES
	City	Highway	Combined
All-Electric Range (miles, unadjusted)	22.10	21.00	21.6

GHG Values	City	Highway	Combined
Composite CREE, no upstream emissions	161.7	196.9	177.5
Composite CREE, with upstream emissions		calculation is not yet determined	

Label Values (5-Cycle Adjusted)			
Charge-Depleting	City	Highway	Combined
Charge-depleting Range (Miles)	14.16	14.37	14
All-Electric Range (Miles)	15.50	14.70	15
Total Driving Range (Miles)			490
CD Fuel Economy (MPGe)	48.3777	54.3406	51
CD Electricity Consumption (kW-hr/100mi)	69.1411	59.6219	65
CD Gasoline Consumption (gal/100mi)	0.0	0.0	0.0
Charge-Sustaining	City	Highway	Combined
CS Fuel Economy (MPG)	21.2	24.4	23
CS Fuel Consumption (gal/100mi)	4.7	4.1	4.3
Composite CD/CS	City	Highway	Combined
Annual Fuel Cost ($/year)			$ 1,850
5-Year Fuel Savings Value ($/5 years)		Compared to the average vehicle, you SPEND:	$ 1,750
Composite CO2 (g/mi)	273.0	232.6	255
Composite Fuel Economy (MPG)	26.1160	30.2	28
MPG Rating (on scale of 1-10)			6
GHG Rating (on scale of 1-10)			8

Label Inputs Based on Model Year and Fuel Type (generally these should not be changed)	
Gasoline cost ($/gallon)	$ 3.25
Electricity cost ($/kW-hour)	$ 0.13
Average vehicle 5-year cost ($)	$ 7,500
Average vehicle MPG	27

THE FOLLOWING VALUES ARE USED FOR OTHER EPA PUBLICATIONS OR PROGRAMS

Trends Report Values	City	Highway

ENTER BASIC VEHICLE INFORMATION HER

Vehicle Information
Model year:
Vehicle category:
Manufacturer name:
Model name:
Liquid fuel type:
Additional descriptors as needed:
Fuel tank size (U.S. gallons)
Use 2017 derived 5-cycle equations?
Use upstream GHG emissions?
Inputs & Conversions (most of these should not
DOE Petroleum Equivalence Factor (PEF):
Watt-hours of energy per gallon of gasoline:
Grams of CO2 per gallon of gasoline/diesel:
Fuel lower heating value (kJ/kg):
Fuel density (kg/gal):
Use Amp-hours or Watt-hours for Zn Calculation?

This calculator automatically selects appropriate CAFE value for 2016 and model year PHEVs. If the PHEV is a d vehicle for purposes of CAFE, the be 50/50 weighting or a utility factor ca will be selected. The statute require manufacturers to request use of the factor method for 2016 and later PH Submitting this spreadsheet to EPA, completely and correctly, will consti request. Prior to 2016 the 50/50 we option must be used.

Fleet Utility Factor (43/57)	0.4918	0.2805	
Unadjusted Fuel Economy (MPG)	38.5562	39.2312	
Unadjusted GHG (g/mi)	161.7000	196.9000	
Adjusted Fuel Economy (MPG)	27.8072	27.0964	
Adjusted GHG (g/mi)	235.7	293.5	
HOV Lane Values	**City**	**Highway**	**Combined**
MDIUF based on unadjusted Rcda	0.4548	0.4648	0.4593
Composite CD/CS Fuel Economy (MPGe)	37.1	46.2	40.7

Fueleconomy.gov Values		
Charge-sustaining Efficiency		**MPG**
City FE (Guide) - Conventional Fuel		21
Hwy FE (Guide) - Conventional Fuel		24
Comb FE (Guide) - Conventional Fuel		23
City Unadj FE - Conventional Fuel		26.9
Hwy Unadj FE - Conventional Fuel		34.2
Comb Unadj FE - Conventional Fuel		29.8
City Unrd Adj FE - Conventional Fuel		21.2
Hwy Unrd Adj FE - Conventional Fuel		24.4
Comb Unrd Adj FE - Conventional Fuel		22.5
Charge-sustaining CO2		**g/mi**
City CO2 Rounded Adjusted		416
Hwy CO2 Rounded Adjusted		360
Comb CO2 Rounded Adjusted		391
*City CO2 Unadj		327.1
*Hwy CO2 Unadj		256.6
*Comb CO2 Unadj		295.4
*City CO2 Unrd Adj		415.8
*Hwy CO2 Unrnd Adj		360.5
*Comb CO2 Unrnd Adj		390.9
Charge-sustaining Driving Range (Adjusted)		
*Range1 - Model Type Driving Range - Conventional Fuel - City		447
*Range1 - Model Type Driving Range - Conventional Fuel - Hwy		514
Range1 - Model Type Driving Range - Conventional Fuel - Comb		477
Charge-depleting Efficiency	**kW-hr/100mi**	**MPGe**
City2 FE (Guide) - Alternative Fuel	69	48
Hwy2 Fuel FE (Guide) - Alternative Fuel	60	54
Comb2 Fuel FE (Guide) - Alternative Fuel	65	51
City2 Unadj FE - Alternative Fuel	49.4	67.9
Hwy2 Unadj FE - Alternative Fuel	43.2	77.6
Comb2 Unadj FE - Alternative Fuel	46.6100	71.947
City2 Unrd Adj FE - Alternative Fuel	69.1411	48.3777
Hwy2 Unrd Adj FE - Alternative Fuel	59.6219	54.3406

Cmb2 Unrd Adj FE - Alternative Fuel	64.8575	50.8906
Charge-depleting CO2		**g/mi**
City CO2 Rounded Adj		0
Hwy CO2 Rounded Adj		0
Comb CO2 Rounded Adj		0
*City CO2 Unadj		0.3
*Hwy CO2 Unadj		0
*Comb CO2 Unadj		0.2
*City CO2 Unrd Adj		0.5
*Hwy CO2 Unrnd Adj		0.1
*Comb CO2 Unrnd Adj		0.3
Charge-depleting Driving Range (Adjusted)		**miles**
City Range on Electricity (miles)		14.16
Hwy Range on Electricity (miles)		14.37
Comb Range on Electricity as shown on FE Label (miles)		14
All-Electric Driving Range (Adjusted)		**miles**
City All-Electric Range		15.50
Hwy All-Electric Range		14.70
Comb All-Electric Range as shown on FE Label (miles)		15
Charge-depleting Utility Factors		
City Utility Factor (MDIUF)		0.357
Hwy Utility Factor (MDIUF)		0.361
Comb Utility Factor (MDIUF)		0.359
Composite Efficiency (Adjusted)		**MPGe**
City PHEV Composite MPGe		26
Hwy PHEV Composite MPGe		30
Comb PHEV Composite MPGe		28
Composite CO2 (Adjusted)		**g/mi**
City CO2-PHEV Composite Rounded Adjusted Combined CO2		273
Hwy CO2-PHEV Composite Rounded Adjusted Combined CO2		233
CO2-PHEV Composite Rounded Adjusted Combined CO2		255
PHEV Total Driving Range (Adjusted)		**miles**
		490

RE
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DC Watt-hours

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Test Set #1

Test Set name (e.g., Eco, Power):	E0 - FE
Projected production volume:	CBI Ex. (b)(4)

ENTER CHARGE-SUSTAINING TEST RESULTS HERE

	City	Highway
Fuel Economy, Unadjusted (MPG):	26.9	34.2
Fuel Economy, Adjusted (MPG):	21.1786	24.3654
CREE (g/mi):	327.5	256.8
CO2, Unadjusted (g/mi):	327.1	256.6
CO2, Adjusted (g/mi):	415.8	360.5

ERROR MESSAGES

1
2
3
4

CO2 Adjustment Calculation:	
415.83	360.48
FE Adjustment Calculation:	
21.1786	24.3654

These error messages are used on a trial basis and are not complete or comprehensive. Lack of an error reported here does not imply an error-free set of data. Please review your data carefully, ensure that all fields are completed for a Test Set, and that all cells are empty for unused Test Sets.

ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE

Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy
No.	*miles*	*Amp-hours*	*Volts*	*MPG*
1	7.561	-7.520	405.750	51636.00000
2	7.549	-15.080	387.625	42384.00000
3	7.557	-19.960	378.125	64.66526
4	7.476	-19.760	376.875	30.07208
5	7.479	-19.950	376.750	28.63001
6	7.490	-19.900	376.875	28.87711
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30				
				Recharge energy (A
				All-Electric

Calculated transition cycle: 3	To override transition cycle

Test Set #2

Test Set name (e.g., Eco, Power):	
Projected production volume:	

ENTER CHARGE-SUSTAINING TEST RESULTS HERE		
	City	Highway
Fuel Economy, Unadjusted (MPG):		
Fuel Economy, Adjusted (MPG):		
CREE (g/mi):		
CO2, Unadjusted (g/mi):		
CO2, Adjusted (g/mi):		

ERROR MESSAGES

1 Missing CREE data. GHG values will not be calculated.
2 Charge-sustaining test result data is incomplete
3 Charge-depleting UDDS test result data is incomplete
4 Charge-depleting HFET test result data is incomplete
Charge-depleting HFET test result data is incomplete

These error messages are used on a trial basis and are not complete or comprehensive. Lack of an error reported here does not imply an error-free set of data. Please review your data carefully, ensure that all fields are completed for a Test Set, and that all cells are empty for unused Test Sets.

ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE

Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy
No.	*miles*	*Amp-hours*	*Volts*	*MPG*
1				
2				
3				
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29				
30				
				Recharge energy (A
				All-Electric

Calculated transition cycle: ERROR	To override transition cycle

Test Set #3

Test Set name (e.g., Eco, Power):	
Projected production volume:	

ENTER CHARGE-SUSTAINING TEST RESULTS HERE	City	Highway
Fuel Economy, Unadjusted (MPG):		
Fuel Economy, Adjusted (MPG):		
CREE (g/mi):		
CO2, Unadjusted (g/mi):		
CO2, Adjusted (g/mi):		

ERROR MESSAGES

1 Missing CREE data. GHG values will not be calculated.

2

3 Charge-sustaining test result data is incomplete

4 Charge-depleting UDDS test result data is incomplete

Charge-depleting HFET test result data is incomplete

These error messages are used on a trial basis and are not complete or comprehensive. Lack of an error reported here does not imply an error-free set of data. Please review your data carefully, ensure that all fields are completed for a Test Set, and that all cells are empty for unused Test Sets.

ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE

Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy
No.	*miles*	*Amp-hours*	*Volts*	*MPG*
1				
2				
3				
4				
5				
6				
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9				
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29				
30				
				Recharge energy (A
				All-Electric
Calculated transition cycle: ERROR			To override transition cycle	

CO2	CREE
g/mi	g/mi
0.21000	
0.40000	
135.84548	136.000
292.69025	293.000
307.33576	307.000
304.89901	305.000
C Watt-hours):	9793.328
Range (miles):	22.14

ENTER CHARGE-DEPLETING HFET (HIGHWAY) DATA HERE

Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy	CO2	CREE
No.	miles	Amp-hours	Volts	MPG	g/mi	g/mi
1	10.261	-9.000	405.9	99999.0	0.0	0.000
2	10.264	-18.180	385.4	99999.0	0.1	0.100
3	10.261	-18.070	379.1	32.2	273.0	273.000
4	10.265	-17.800	380.3	34.7	253.5	254.000
5	10.261	-17.770	380.3	34.7	253.4	253.000
6	10.261	-17.520	380.3	35.7	246.4	246.000
7						
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30						
Recharge energy (AC Watt-hours):						8566.181
All-Electric Range (miles):						21.00

, enter here--->		Calculated transition cycle: 5	To override transition cycle, enter here---> 3

ENTER CHARGE-DEPLETING HFET (HIGHWAY) DATA HERE

CO2	CREE	Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy	CO2	CREE
g/mi	*g/mi*	*No.*	*miles*	*Amp-hours*	*Volts*	*MPG*	*g/mi*	*g/mi*
		1						
		2						
		3						
		4						
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		29						
		30						
C Watt-hours):							Recharge energy (AC Watt-hours):	
Range (miles):							All-Electric Range (miles):	
, enter here--->		Calculated transition cycle: ERROR					To override transition cycle, enter here--->	

CO2	CREE
g/mi	g/mi
C Watt-hours):	
Range (miles):	
, enter here--->	

ENTER CHARGE-DEPLETING HFET (HIGHWAY) DATA HERE

Cycle No.	Cycle/Phase Measured Distance	Integrated Amp-Hours Electricity Used	Average Cycle Voltage	Fuel Economy	CO2	CREE
No.	miles	Amp-hours	Volts	MPG	g/mi	g/mi
1						
2						
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30						
					Recharge energy (AC Watt-hours):	
					All-Electric Range (miles):	
Calculated transition cycle: ERROR			To override transition cycle, enter here--->			

→

Results from Test Set #1: E0 - FE

CAFE Values			
A. PHEV meets dual fuel criteria:	City	Highway	Combined
1. Default 50/50 Composite MPGe	**46.2902**	**58.0040**	**50.9174** ←
2. Optional Utility Factor Composite MPGe	47.7723	42.5497	45.2718
B. PHEV does NOT meet dual fuel criteria:	City	Highway	Combined
1. Utility Factor Composity MPGe	38.5562	39.2312	38.8570

GHG Values	City	Highway	Combined
Composite CREE, no upstream emissions	**161.7**	**196.9**	**177.5**
Composite CREE, with upstream emissions	TBD	TBD	TBD

Label Values (5-Cycle Adjusted)			
Charge-Depleting	City	Highway	Combined
Charge-depleting Range (Miles)	14.16426	14.36750	**14**
All-Electric Range (Miles)	15.49870	14.70000	**15**
Total Driving Range (Miles)			**490**
CD Fuel Economy (MPGe)	48.3777	54.3406	**51**
CD Electricity Consumption (kW-hr/100mi)	69.1411	59.622	**65**
CD Gasoline Consumption (gal/100mi)	0.0031	0.0014	**0**
Charge-Sustaining	City	Highway	Combined
CS Fuel Economy (MPG)	21.2	24.4	**23**
CS Fuel Consumption (gal/100mi)	4.7	4.1	**4.3**
Composite CD/CS	City	Highway	Combined
Annual Fuel Cost ($/year)			**1,850**
5-Year Fuel Savings Value ($/5 years)			**(1,750)**
Composite CO2 (g/mi)	273.0	232.6	**255**
Composite Fuel Economy (MPG)	26.1160	30.1910	**28**

HOV Lane Values	City	Highway	Combined
MDIUF based on unadjusted Rcda	0.4548	0.4648	
Composite CD/CS Fuel Economy (MPGe)	37.0795	46.2190	40.7

Trends Report Values	City	Highway	Combined
Fleet Utility Factor (43/57)	0.4918	0.2805	0.3967
Unadjusted Fuel Economy (MPG)	38.5562	39.2312	38.8570
Unadjusted GHG (g/mi)	161.70	196.90	177.5
Adjusted Fuel Economy (MPG)	27.8072	27.0964	27.4827
Adjusted GHG (g/mi)	235.7	293.5	261.7

INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #1:

CAFE & GHG Calculations	City	Highway
CD range, unadjusted (miles)	19.869	20.525
All-Electric Range, unadjusted (mi)	22.141	21.000
Equivalent All-Electric Range, Unadjusted (mi)	19.849	20.522
CD DC energy consumed (Watt-hours)	-7804.3	-6940.2
CD AC consumption rate (W-hrs/mile)	494.34	429.93
CD incentivized fuel economy (MPGe)	166.0	190.8
CD gasoline CREE, with UF applied (g/mi)	18.7	28.8
CD 55/45 Fleet Utility Factor, based on Rcdc	0.5633	0.3453
CD 55/45 Fleet Utility Factor, based on EAER	0.5215	0.2391
CD fuel consumption rate, with UF (gal-e/mi)	0.0097	0.0063
CD CO2 emissions rate, unadjusted (g/mi)	0.3	0.0

Label Calculations	City	Highway
CD cost per mile - electricity ($/mi)	$ 0.090	$ 0.078
CD cost per mile - gasoline ($/mi)	$ 0.000	$ 0.000
CD total cost per mile ($/mi)	$ 0.090	$ 0.078
CS cost per mile ($/mi)	$ 0.15	$ 0.13
MDIUF based on Rcda	0.3571	0.3609
MDIUF based on Rcdc	0.3916	0.4834
Composite CD/CS cost per mile	$ 0.13	$ 0.11
Charge-depleting gasoline consumption (gal)	0.000436691	0.000205252
Charge-sustaining driving range (mi)	446.86	514.10
Charge-depleting CO2 (g/mi)	0.460	0.050

Test Information	City	Highway
CD fraction of transition cycle (Zn)	0.6297	0.0000
Last CD cycle number (transition cycle)	3	3
Calculated All-Electric Range, unadjusted (mi)	0	0

Results from Test Set #2: 0			
CAFE Values			
A. PHEV meets dual fuel criteria:	City	Highway	Combined
1. Default 50/50 Composite MPGe	**-**	**-**	**-** ←
2. Optional Utility Factor Composite MPGe	-	-	-
B. PHEV does NOT meet dual fuel criteria:	City	Highway	Combined
1. Utility Factor Composity MPGe	-	-	-
GHG Values	**City**	**Highway**	**Combined**
Composite CREE, no upstream emissions	**0.0**	**0.0**	**0.0**
Composite CREE, with upstream emissions	TBD	TBD	TBD
Label Values (5-Cycle Adjusted)			
Charge-Depleting	**City**	**Highway**	**Combined**
Charge-depleting Range (Miles)	0.00000	0.00000	**0**
All-Electric Range (Miles)	0.00000	0.00000	**0**
Total Driving Range (Miles)			**0**
CD Fuel Economy (MPGe)	0.0000	0.0000	**0**
CD Electricity Consumption (kW-hr/100mi)	0.0000	0.000	**0**
CD Gasoline Consumption (gal/100mi)	0.0000	0.0000	**0**
Charge-Sustaining	**City**	**Highway**	**Combined**
CS Fuel Economy (MPG)	0.0	0.0	**0**
CS Fuel Consumption (gal/100mi)	0.0	0.0	**0**
Composite CD/CS	**City**	**Highway**	**Combined**
Annual Fuel Cost ($/year)			**-**
5-Year Fuel Savings Value ($/5 years)			**7,500**
Composite CO2 (g/mi)	0.0	0.0	**0**
Composite Fuel Economy (MPG)	0.0000	0.0000	**0**
HOV Lane Values	**City**	**Highway**	**Combined**
MDIUF based on unadjusted Rcda	0.0000	0.0000	
Composite CD/CS Fuel Economy (MPGe)	0.0000	0.0000	**0.0**
Trends Report Values	**City**	**Highway**	**Combined**
Fleet Utility Factor (43/57)	0.0000	0.0000	0.0000
Unadjusted Fuel Economy (MPG)	0.0000	0.0000	0.0000
Unadjusted GHG (g/mi)	-	-	0.0
Adjusted Fuel Economy (MPG)	0.0000	0.0000	0.0000
Adjusted GHG (g/mi)	0.0	0.0	0.0

INTERMEDIATE CALCULATIONS AND INPUTS		Test Set #2:
CAFE & GHG Calculations	**City**	**Highway**
CD range, unadjusted (miles)	#DIV/0!	#DIV/0!
All-Electric Range, unadjusted (mi)	0.000	0.000
Equivalent All-Electric Range, Unadjusted (mi)	#DIV/0!	#DIV/0!
CD DC energy consumed (Watt-hours)	0.0	0.0
CD AC consumption rate (W-hrs/mile)	#DIV/0!	#DIV/0!
CD incentivized fuel economy (MPGe)	#DIV/0!	#DIV/0!
CD gasoline CREE, with UF applied (g/mi)	0.0	0.0
CD 55/45 Fleet Utility Factor, based on Rcdc	0.0000	0.0000
CD 55/45 Fleet Utility Factor, based on EAER	#VALUE!	#VALUE!
CD fuel consumption rate, with UF (gal-e/mi)	0.0000	0.0000
CD CO2 emissions rate, unadjusted (g/mi)	#DIV/0!	#DIV/0!
Label Calculations	**City**	**Highway**
CD cost per mile - electricity ($/mi)	$ -	$ -
CD cost per mile - gasoline ($/mi)	#DIV/0!	#DIV/0!
CD total cost per mile ($/mi)	#DIV/0!	#DIV/0!
CS cost per mile ($/mi)	#DIV/0!	#DIV/0!
MDIUF based on Rcda	0.0000	0.0000
MDIUF based on Rcdc	0.0000	0.0000
Composite CD/CS cost per mile	#DIV/0!	#DIV/0!
Charge-depleting gasoline consumption (gal)	#DIV/0!	#DIV/0!
Charge-sustaining driving range (mi)	0.00	0.00
Charge-depleting CO2 (g/mi)	0.000	0.000
Test Information	**City**	**Highway**
CD fraction of transition cycle (Zn)	#DIV/0!	#DIV/0!
Last CD cycle number (transition cycle)	EOT ERROR	EOT ERROR
Calculated All-Electric Range, unadjusted (mi)	0	0

Results from Test Set #3: 0				
CAFE Values				
A. PHEV meets dual fuel criteria:	City	Highway	Combined	←
1. Default 50/50 Composite MPGe	**-**	**-**	**-**	←
2. Optional Utility Factor Composite MPGe	-	-	-	
B. PHEV does NOT meet dual fuel criteria:	City	Highway	Combined	
1. Utility Factor Composity MPGe	-	-	-	
GHG Values	**City**	**Highway**	**Combined**	
Composite CREE, no upstream emissions	**0.0**	**0.0**	**0**	
Composite CREE, with upstream emissions	TBD	TBD	TBD	
Label Values (5-Cycle Adjusted)				
Charge-Depleting	**City**	**Highway**	**Combined**	
Charge-depleting Range (Miles)	0.00000	0.00000	**0**	
All-Electric Range (Miles)	0.00000	0.00000	**0**	
Total Driving Range (Miles)			**0**	
CD Fuel Economy (MPGe)	0.0000	0.0000	**0**	
CD Electricity Consumption (kW-hr/100mi)	0.0000	0.000	**0**	
CD Gasoline Consumption (gal/100mi)	0.0000	0.0000	**0**	
Charge-Sustaining	**City**	**Highway**	**Combined**	
CS Fuel Economy (MPG)	0.0	0.0	**0**	
CS Fuel Consumption (gal/100mi)	0.0	0.0	**0**	
Composite CD/CS	**City**	**Highway**	**Combined**	
Annual Fuel Cost ($/year)			**-**	
5-Year Fuel Savings Value ($/5 years)			**7,500**	
Composite CO2 (g/mi)	0.0	0.0	**0**	
Composite Fuel Economy (MPG)	0.0000	0.0000	**0**	
HOV Lane Values	**City**	**Highway**	**Combined**	
MDIUF based on unadjusted Rcda	0.0000	0.0000		
Composite CD/CS Fuel Economy (MPGe)	0.0000	0.0000	**0.0**	
Trends Report Values	**City**	**Highway**	**Combined**	
Fleet Utility Factor (43/57)	0.0000	0.0000	0.0000	
Unadjusted Fuel Economy (MPG)	0.0000	0.0000	0.0000	
Unadjusted GHG (g/mi)	-	-	0.0	
Adjusted Fuel Economy (MPG)	0.0000	0.0000	0.0000	
Adjusted GHG (g/mi)	0.0	0.0	0.0	

INTERMEDIATE CALCULATIONS AND INPUTS		Test Set #3:
CAFE & GHG Calculations	**City**	**Highway**
CD range, unadjusted (miles)	#DIV/0!	#DIV/0!
All-Electric Range, unadjusted (mi)	0.000	0.000
Equivalent All-Electric Range, Unadjusted (mi)	#DIV/0!	#DIV/0!
CD DC energy consumed (Watt-hours)	0.000	0.000
CD AC consumption rate (W-hrs/mile)	#DIV/0!	#DIV/0!
CD incentivized fuel economy (MPGe)	#DIV/0!	#DIV/0!
CD gasoline CREE, with UF applied (g/mi)	0.0	0.0
CD 55/45 Fleet Utility Factor, based on Rcdc	0.0000	0.0000
CD 55/45 Fleet Utility Factor, based on EAER	#VALUE!	#VALUE!
CD fuel consumption rate, with UF (gal-e/mi)	0.0000	0.0000
CD CO2 emissions rate, unadjusted (g/mi)	#DIV/0!	#DIV/0!
Label Calculations	**City**	**Highway**
CD cost per mile - electricity ($/mi)	$ -	$ -
CD cost per mile - gasoline ($/mi)	#DIV/0!	#DIV/0!
CD total cost per mile ($/mi)	#DIV/0!	#DIV/0!
CS cost per mile ($/mi)	#DIV/0!	#DIV/0!
MDIUF based on Rcda	0.0000	0.0000
MDIUF based on Rcdc	0.0000	0.0000
Composite CD/CS cost per mile	#DIV/0!	#DIV/0!
Charge-depleting gasoline consumption (gal)	#DIV/0!	#DIV/0!
Charge-sustaining driving range (mi)	0.00	0.00
Charge-depleting CO2 (g/mi)	0.000	0.000
Test Information	**City**	**Highway**
CD fraction of transition cycle (Zn)	#DIV/0!	#DIV/0!
Last CD cycle number (transition cycle)	EOT ERROR	EOT ERROR
Calculated All-Electric Range, unadjusted (mi)	0	0

Trends Report Values											
UnadjCityMPG	UnadjHwyMPG	UnadjMPG554	AdjCityMPG	AdjHwMPG	AdjMPG4357	UnadjCityGHG	UnadjHwyGHG	ComplianceGH	AdjCityGHG	AdjHwyGHG	AdjGHG4357
38.5562	39.2312	38.8571	27.8072	27.0964	27.3975	161.7	196.9	178	235.7	293.5	268.646

E0 - FE
Combined
20.2
21.6
20.2
-7415
465.35
176.3
23.22
0.4652
0.3944
0.0082
0.196
Combined
0.3588
$ 0.12
0.000332544
477.1197889
0.275

DETAILED CALCULATIONS UDDS E0 - FE

Cycle No.	Gasoline Consumed	CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance	Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*	*gal/mi equiv*	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*
1	0.0001	1.5878	-7.520	-3051.240	3828.889	7.45	0.015073218	0.0151	0.2427	0.0000	0.0037
2	0.0002	3.0196	-7.56	-2930.445	3677.308	14.90	0.014499499	0.0145	0.1832	0.0000	0.0027
3	0.1169	1026.5843	-4.88	-1845.250	2315.536	22.35	0.009120416	0.0246	0.1373	18.6781	0.0034
4	0.2486	2188.1523	0.2	75.375	-94.585	29.80	-0.00037659	0.0329	0.1026	30.0480	0.0034
5	0.2612	2298.5642	-0.19	-71.583	89.826	37.25	0.000357497	0.0353	0.0765	23.4919	0.0027
6	0.2594	2283.6936	0.05	18.844	-23.646	44.70	-9.3971E-05	0.0345	0.0572	17.4450	0.0020
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Combined
#DIV/0!
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#VALUE!
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#DIV/0!
Combined
0.0000
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#DIV/0!
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0.000

DETAILED CALCULATIONS UDDS 0

Cycle No.		CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance	Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*	*gal/mi equiv*	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*
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#VALUE!
0.0000
#DIV/0!
Combined
0.0000
#DIV/0!
#DIV/0!
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0.000

DETAILED CALCULATIONS **UDDS** **0**

Cycle No.	Gasoline Consumed	CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance	Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*	*gal/mi equiv*	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*
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2											
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CityFUF4357	HwyFUF4357
0.4918	0.2805

Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2	MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption
gal-equiv	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*	*gal-equiv*	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*
0.1141	0.7000	5.293	5.22	FALSE	0.1546772	0.3000000	0.046403152	0.003334969	0.2118876	0.003197931	0.1983	0.004274993
0.1096	0.7000	5.284	10.43	FALSE	0.1262248	0.5714286	0.072128476	0.002618821	0.1589767	0.002308833	0.1586	0.003290221
0.1858	0.7539	5.697	16.05	FALSE	0.1107141	180.1996486	19.95063579	0.003610571	0.1205502	0.002963686	0.1349	0.004400005
0.2458	0.7785	5.820	21.85	FALSE	0.0926292	375.9705889	34.82585839	0.003911864	0.0923573	0.003036418	0.1084	0.004576386
0.2639	0.7837	5.861	27.68	FALSE	0.0756969	392.1723306	29.68624101	0.003408342	0.0714659	0.002521738	0.0843	0.003796659
0.2587	0.7821	5.858	33.51	FALSE	0.0616745	389.8309760	24.0426287	0.002723279	0.0558341	0.001928262	0.0650	0.002871619

Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2	MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption
gal-equiv	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*	*gal-equiv*	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*

Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2	MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption
gal-equiv	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*	*gal-equiv*	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*

43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on battery 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
g/mi	*CD or CS*		*CD or CS*	
0	CD	-620.239	CD	1.000
0	CD	-548.614	CD	0.490
24.34040099	CD	-1.988	CD	0.236
40.78495678	CD	-0.631	CS based on 2%	-0.010
33.03230741	CD	-0.227	CS based on 2%	0.000
25.360655	CD	-0.061	CS based on 2%	-0.003
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
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		1.000		1.000

DETAILED CALCULATIONS HFET E0 - FE

Cycle No.	Gasoline Consumed	CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*
1	0.0001	0.0000	-9.000	-3653.1000	4508.9446	10.30
2	0.0001	0.7185	-9.18	-3537.9720	4366.8445	20.60
3	0.3185	2801.4582	0.11	41.7037	-51.4741	30.90
4	0.2957	2602.1775	0.27	102.6675	-126.7203	41.20
5	0.2955	2599.8296	0.03	11.4075	-14.0800	51.50
6	0.2873	2528.4130	0.25	95.063	-117.3336	61.80
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43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on battery 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
g/mi	*CD or CS*		*CD or CS*	
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
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		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000

DETAILED CALCULATIONS HFET 0

Cycle No.	Gasoline Consumed	CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*
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43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on battery 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
g/mi	*CD or CS*		*CD or CS*	
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000
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		1.000		1.000
		1.000		1.000
		1.000		1.000
		1.000		1.000

DETAILED CALCULATIONS HFET 0

Cycle No.	Gasoline Consumed	CO2	Net Amp-Hours Used Per Cycle	DC Energy Consumed	AC Energy Consumed	Theoretical Cumulative Cycle Distance
No.	*gal*	*grams*	*Amp-hours*	*W-hours*	*W-hours*	*mi*
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Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption	Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2
gal/mi equiv	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*	*gal-equiv*	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*
0.013079696	0.0131	0.1232	0.0000	0.0016	0.1343	0.7000	7.183	7.21	FALSE	0.2059786	0.000000	0
0.012663785	0.0127	0.1167	0.0117	0.0015	0.1301	0.7000	7.185	14.42	FALSE	0.1559306	0.100000	0.015593055
-0.00014932	0.0309	0.1054	28.7615	0.0033	0.3169	0.7154	7.341	21.79	FALSE	0.1215118	381.630373	46.37260183
-0.00036745	0.0284	0.0921	23.3986	0.0026	0.2920	0.7109	7.297	29.11	FALSE	0.0927785	356.596045	33.0844374
-4.0844E-05	0.0288	0.0789	19.9526	0.0023	0.2951	0.7115	7.301	36.44	FALSE	0.0721009	356.098577	25.67503232
-0.00034037	0.0277	0.0666	16.3869	0.0018	0.2838	0.7093	7.278	43.74	FALSE	0.0563429	347.409851	19.57407349

Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption	Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2
gal/mi equiv	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*	*gal-equiv*	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*

Electric Only Fuel Consumption	Total Fuel Consumption Rate (gas + electric)	55/45 City Fleet Utility Factor	55/45 City FUF x CREE	55/45 FUF x Total Consumption	Total Fuel Consumption (gas + electric)	5-Cycle Adjustment	Adjusted Cycle Measured Distance	Adjusted Cycle Theoretical Cumulative Distance	All-Electric Operation for AER Calculation?	MDIUF	Adjusted CO2	MDIUF x Adjusted CO2
gal/mi equiv	*gal/mi equiv*	*UF*	*UF*	*gal/mi equiv*	*gal-equiv*	*%*	*miles*	*miles*	*TRUE/FALSE*	*UF*	*g/mi*	*g/mi*

MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption	43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on NEC 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
gal-equiv	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*	*g/mi*	*CD or CS*		*CD or CS*	
0.00385171	0.2780522	0.003639618	0.0974	0.001822254	0	CD	-1059.685	CD	1.000
0.002823186	0.1879014	0.002381421	0.0937	0.001696985	0.013389726	CD	-1042.834	CD	0.492
0.005246226	0.1295390	0.004001109	0.0893	0.003856559	34.08651648	CD	-0.668	CS based on 2%	-0.006
0.003712073	0.0910246	0.002588986	0.0809	0.003235028	28.88956857	CD	-0.341	CD	-0.020
0.002914471	0.0651335	0.001873306	0.0725	0.002930393	25.77759729	CD	-0.111	CD	-0.022
0.002196843	0.0474159	0.001311294	0.0639	0.002493133	22.17708148	CS based on 1%	0.005	CD	-0.036
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
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							1.000		1.000

MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption	43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on NEC 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
gal-equiv	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*	*g/mi*	*CD or CS*		*CD or CS*	
							1.000		1.000
							1.000		1.000
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							1.000		1.000

MDIUF x Adjusted Total Fuel Consumption	MDIUF for HOV Calculation	MDIUF x Fuel Consumption	43/57 City Fleet Utility Factor	43/57 FUF x Adjusted Total Fuel Consumption	43/57 FUF x Adjusted CREE	Is Cycle CD or CS based on NEC 1% Tolerance?	NEC Tolerance 1% Fuel Energy Criteria	Is Cycle CD or CS based on NEC 2% Tolerance?	NEC Tolerance 2% Usable Battery Energy Criteria
gal-equiv	*UF*	*gal/mi equiv*	*UF*	*gal-equiv*	*g/mi*	*CD or CS*		*CD or CS*	
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000
							1.000		1.000