## 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 | 55.3465 | 53.7980 | 54.6388 |
| → 2. Optional Utility Factor Composite MPGe | 154.7673 | 69.4003 | 99.6230 ← |
| B. PHEV does NOT meet dual fuel criteria: | City | Highway | Combined |
| 1. Utility Factor Composite MPGe | 78.8189 | 52.8218 | 64.5277 |
| Based on the all-electric range, is this PHEV a dual fuel vehicle for CAFE? | | | YES |
| | City | Highway | Combined |
| All-Electric Range (miles, unadjusted) | 79.10 | 75.00 | 77.3 |

| GHG Values | City | Highway | Combined |
|---|---|---|---|
| Composite CREE, no DF (g/mi) | 28.2 | 140.5 | 78.7 |

| Label Values (5-Cycle Adjusted) | | | |
|---|---|---|---|
| **Charge-Depleting** | City | Highway | Combined |
| Charge-depleting Range (Miles) | 55.98 | 52.21 | 54 |
| All-Electric Range (Miles) | 55.38 | 52.47 | 54 |
| Total Driving Range (Miles) | | | 280 |
| CD Fuel Economy (MPGe) | 63.4767 | 60.5382 | 62 |
| CD Electricity Consumption (kW-hr/100mi) | 53.0290 | 55.6720 | 54.2184 |
| CD Gasoline Consumption (gal/100mi) | 0.0 | 0.0 | 0.0 |
| **Charge-Sustaining** | City | Highway | Combined |
| CS Fuel Economy (MPG) | 22.0 | 21.3 | 22 |
| CS Fuel Consumption (gal/100mi) | 4.5 | 4.7 | 4.5 |
| **Composite CD/CS** | City | Highway | Combined |
| Annual Fuel Cost ($/year) | | | $ 1,350 |
| 5-Year Fuel Savings Value ($/5 years) | | You SAVE: | $ 750 |
| Composite CO2 (g/mi) | 91.2 | 101.4 | 96 |
| Composite Fuel Economy (MPG) | 44.1032 | 41.5586 | 43 |
| MPG Rating (on scale of 1-10) | | | 9 |
| GHG Rating (on scale of 1-10) | | | 10 |

| 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 | |
|---|---|---|---|
| Fleet Utility Factor (43/57) | 0.8950 | 0.6000 | |
| Unadjusted Fuel Economy (MPG) | 78.8189 | 52.8218 | |
| Unadjusted GHG (g/mi) | 28.2000 | 140.5000 | |
| Adjusted Fuel Economy (MPG) | 51.8150 | 33.4860 | |
| Adjusted GHG (g/mi) | 45.2 | 181.1 | |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda | 0.8540 | 0.8410 | |
| Composite CD/CS Fuel Economy (MPGe) | 71.1 | 67.2 | 69.3 |

| Fueleconomy.gov Values | | |
|---|---|---|
| **Charge-sustaining Efficiency** | | MPG |
| City FE (Guide) - Conventional Fuel | | 22 |
| Hwy FE (Guide) - Conventional Fuel | | 21 |
| Comb FE (Guide) - Conventional Fuel | | 22 |
| City Unadj FE - Conventional Fuel | | 31.6 |
| Hwy Unadj FE - Conventional Fuel | | 30.8 |
| Comb Unadj FE - Conventional Fuel | | 31.2803 |
| City Unrd Adj FE - Conventional Fuel | | 22.0245 |
| Hwy Unrd Adj FE - Conventional Fuel | | 21.3319 |
| Comb Unrd Adj FE - Conventional Fuel | | 21.7073 |
| **Charge-sustaining CO2** | | g/mi |
| City CO2 Rounded Adjusted | | 401 |
| Hwy CO2 Rounded Adjusted | | 413 |
| Comb CO2 Rounded Adjusted | | 406 |
| *City CO2 Unadj | | 278.0 |
| *Hwy CO2 Unadj | | 286.0 |
| *Comb CO2 Unadj | | 281.6 |
| *City CO2 Unrd Adj | | 400.6 |
| *Hwy CO2 Unrnd Adj | | 413 |
| *Comb CO2 Unrnd Adj | | 406.2 |
| **Charge-sustaining Driving Range (Adjusted)** | | |
| *Range1 - Model Type Driving Range - Conventional Fuel - City | | 227 |
| *Range1 - Model Type Driving Range - Conventional Fuel - Hwy | | 220 |
| Range1 - Model Type Driving Range - Conventional Fuel - Comb | | 224 |
| **Charge-depleting Efficiency** | kW-hr/100mi | MPGe |
| City2 FE (Guide) - Alternative Fuel | 53 | 63 |
| Hwy2 Fuel FE (Guide) - Alternative Fuel | 56 | 61 |
| Comb2 Fuel FE (Guide) - Alternative Fuel | 54 | 62 |
| City2 Unadj FE - Alternative Fuel | 37.3 | 90.4 |
| Hwy2 Unadj FE - Alternative Fuel | 39 | 86.4 |
| Comb2 Unadj FE - Alternative Fuel | 38.0650 | 88.5551 |
| City2 Unrd Adj FE - Alternative Fuel | 53.0290 | 63.4767 |
| Hwy2 Unrd Adj FE - Alternative Fuel | 55.6720 | 60.5382 |
| Cmb2 Unrd Adj FE - Alternative Fuel | 54.2184 | 62.1198 |
| **Charge-depleting CO2** | | g/mi |
| City CO2 Rounded Adj | | 0 |
| Hwy CO2 Rounded Adj | | 0 |
| Comb CO2 Rounded Adj | | 0 |
| *City CO2 Unadj | | 0 |
| *Hwy CO2 Unadj | | 0 |
| *Comb CO2 Unadj | | 0 |
| *City CO2 Unrd Adj | | 0 |
| *Hwy CO2 Unrnd Adj | | 0 |
| *Comb CO2 Unrnd Adj | | 0 |
| **Charge-depleting Driving Range (Adjusted)** | | miles |
| City Range on Electricity (miles) | | 55.98 |
| Hwy Range on Electricity (miles) | | 52.21 |
| Comb Range on Electricity as shown on FE Label (miles) | | 54 |
| **All-Electric Driving Range (Adjusted)** | | miles |
| City All-Electric Range | | 55.38 |
| Hwy All-Electric Range | | 52.46 |
| Comb All-Electric Range as shown on FE Label (miles) | | 54.0 |
| **Charge-depleting Utility Factors** | | UF |
| City Utility Factor (MDIUF) | | 0.774 |
| Hwy Utility Factor (MDIUF) | | 0.755 |
| Comb Utility Factor (MDIUF) | | 0.766 |
| **Composite Efficiency (Adjusted)** | | MPGe |
| City PHEV Composite MPGe | | 44 |
| Hwy PHEV Composite MPGe | | 42 |
| Comb PHEV Composite MPGe | | 43 |
| **Composite CO2 (Adjusted)** | | g/mi |
| City CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 91 |
| Hwy CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 101 |
| CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 96 |
| **PHEV Total Driving Range (Adjusted)** | | miles |
| | | 280 |

### ENTER BASIC VEHICLE INFORMATION HERE

| Vehicle Information | |
|---|---|
| Model year: | 2021 |
| Vehicle category: | PV |
| Manufacturer name: | Karma |
| Model name: | Revero GTS |
| Liquid fuel type: | Premium Unleaded |
| Additional descriptors as needed: | 22" wheel size 5500lbs |
| Fuel tank size (U.S. gallons) | 10.3 |
| **Deterioration Factors for GHG (CREE) Values (optional)** | Yes |
| Select the type of DF to apply: | None |
| Enter a single DF for City and Highway: | |
| Enter a City DF : | |
| Enter a Highway DF: | |
| **Inputs & Conversions (most of these should not be changed)** | |
| DOE Petroleum Equivalence Factor (PEF): | 82049 |
| Watt-hours of energy per gallon of gasoline: | 33705 |
| Grams of CO2 per gallon of gasoline/diesel: | 8887 |
| Fuel lower heating value (kJ/kg): | 43020 |
| Fuel density (kg/gal): | 2.805 |

ERROR AND VALIDATION MESSAGES

This calculator automatically selects the appropriate CAFE value for 2016 and later model year PHEVs. If the PHEV is a dual fuel vehicle for purposes of CAFE, the better of a 50/50 weighting or a utility factor calculation will be selected. The statute requires manufacturers to request use of the utility factor method for 2016 and later PHEVs. Submitting this spreadsheet to EPA, filled out completely and correctly, will constitute such a request. Prior to 2016 the 50/50 weighting option must be used.

## Test Set #1

| | |
|---|---|
| Test Set name (e.g., Eco, Power): | SUSTAIN |
| Production Volume (projected or actual): | |

| ENTER CHARGE-SUSTAINING TEST RESULTS HERE | City | Highway |
|---|---|---|
| Fuel Economy, Unadjusted (MPG): | 31.7 | 30.8 |
| Fuel Economy, Adjusted (MPG): | 22.0245 | 21.3319 |
| CREE (g/mi): | 402.4 | 413.8 |
| CO2, Unadjusted (g/mi): | 278 | 286 |
| CO2, Adjusted (g/mi): | 400.6 | 413.0 |

**ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE**

| Cycle No. | Cycle/Phase Measured Distance | Integrated Amp-Hours Electricity Used | Average Cycle Voltage | Fuel Economy | CO2 | CREE |
|---|---|---|---|---|---|---|
| No. | Miles [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | 7.430 | -6.194 | 400.50 | | 0 | 0 |
| 2 | 7.430 | -12.178 | 392.00 | | 0 | 0 |
| 3 | 7.430 | -18.270 | 384.50 | | 0 | 0 |
| 4 | 7.430 | -24.456 | 377.50 | | 0 | 0 |
| 5 | 7.440 | -30.753 | 370.00 | | 0 | 0 |
| 6 | 7.440 | -37.156 | 364.00 | | 0 | 0 |
| 7 | 7.420 | -43.601 | 360.00 | | 0 | 0 |
| 8 | 7.430 | -50.149 | 356.50 | | 0 | 0 |
| 9 | 7.460 | -56.730 | 353.50 | | 0 | 0 |
| 10 | 7.460 | -63.376 | 350.00 | | 0 | 0 |
| 11 | 7.460 | -68.140 | 345.50 | 81.4 | 107 | 108 |
| 12 | 7.460 | -68.109 | 343.00 | 31.8 | 276 | 278 |
| 13 | | | | | | |
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| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | 29.685 |
| All-Electric Range (miles): | | | | | | 79.120 |
| Calculated transition cycle: 11 | | | To override transition cycle, 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 [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | 10.270 | -8.892 | 399.00 | | 0 | 0 |
| 2 | 10.270 | -17.696 | 387.50 | | 0 | 0 |
| 3 | 10.270 | -26.719 | 376.50 | | 0 | 0 |
| 4 | 10.260 | -35.863 | 367.00 | | 0 | 0 |
| 5 | 10.260 | -45.348 | 360.00 | | 0 | 0 |
| 6 | 10.280 | -54.769 | 355.00 | | 0 | 0 |
| 7 | 10.240 | -64.669 | 349.50 | | 0 | 0 |
| 8 | 10.270 | -67.258 | 346.00 | 39.1 | 225 | 226 |
| 9 | 10.270 | -67.285 | 346.00 | 30.7 | 287 | 287 |
| 10 | | | | | | |
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| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | 29.066 |
| All-Electric Range (miles): | | | | | | 74.950 |
| Calculated transition cycle: 8 | | | To override transition cycle, enter here---> | | | |

### Results from Test Set #1: SUSTAIN

| CAFE Values | City | Highway | Combined |
|---|---|---|---|
| A. PHEV meets dual fuel criteria: | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | 55.3465 | 53.7980 | 54.6388 |
| 2. Optional Utility Factor Composite MPGe [4] | 154.7673 | 69.4003 | 99.6230 |
| B. PHEV does NOT meet dual fuel criteria: | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | 78.8189 | 52.8218 | 64.5277 |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, (g/mi) [1] | 28.2 | 140.5 | 78.7 |
| **Label Values (5-Cycle Adjusted)** | | | |
| Charge-Depleting | | | Combined |
| CD range, adjusted (miles) [0] | | | 54 |
| CD All-Electric Range, adjusted (mi) [0] | | | 54 |
| Total Driving Range (Miles) [0] | | | 280 |
| CD Fuel Economy (MPGe) [0] | | | 62 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 54 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| Charge-Sustaining | | | Combined |
| CS Fuel Economy (MPG) [0] | 22.0245 | 21.3319 | 22 |
| CS Fuel Consumption (gal/100mi) [1] | 4.5 | 4.7 | 4.5 |
| Composite CD/CS | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | 1,350 |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 750 |
| Composite CO2 (g/mi) [0] | | | 96 |
| Composite Fuel Economy (MPG) [0] | | | 43 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.854 | 0.841 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 71.1216 | 67.1792 | 69.2917 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.895 | 0.600 | 0.7623 |
| Unadjusted Fuel Economy (MPG) [4] | 78.8189 | 52.8218 | 64.5277 |
| Unadjusted GHG (g/mi) [1] | 28.2 | 140.5 | 78.7 |
| Adjusted Fuel Economy (MPG) [4] | 51.8150 | 33.4860 | 41.5746 |
| Adjusted GHG (g/mi) [1] | 45.2 | 181.1 | 106.4 |

### INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #1: SUSTAIN

| Charge-Depleting (CD) Test Results | CITY | HIGHWAY |
|---|---|---|
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD driving distance (Rcda), unadjusted (miles) [3] | 79.719 | 74.541 |
| CD driving distance (Rcda), adjusted (miles) [3] | 55.979 | 52.209 |
| CD all-electric driving distance, unadjusted (miles) [3] | 79.120 | 74.950 |
| CD All-Electric Range, adjusted (mi) [3] | 55.384 | 52.465 |
| **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 29698.1 | 29055.1 |
| CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 53.029 | 55.672 |
| CD test total DC energy consumed, unadjusted (Watt-hours) [1] | -25106.6 | -24836.7 |
| NEW CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.8819 | 0.8624 |
| CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.010602 | 0.008750 |
| NEW CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.014532 | 0.011112 |
| NEW CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.012776 | 0.013843 |
| CD gasoline consumption (Rcda), unadjusted (gal) [1] | 0 | 0 |
| CD fuel economy (Rcda), adjusted (MPGe) [4] | 63.4767 | 60.5382 |
| CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW CD fuel economy (Rcda), unadjusted (MPGe) [4] | 90.3963 | 86.4329 |
| NEW CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 37.286 | 38.996 |
| **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 3.9 | 11.4 |
| CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 1.6 | 10.6 |
| NEW CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 3.1 | 15.9 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.934 | 0.686 |
| MDIUF based on adjusted Rcda [3] | 0.774 | 0.755 |
| MDIUF based on adjusted Rcdc [3] | 0.782 | 0.782 |
| Fraction of transition cycle that is charge-depleting operation (Zn) [3] | 0.717 | 0.262 |
| Number of last cycle number with charge-depleting operation (transition cycle) [0] | 11 | 8 |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | |
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | 79.719 | 74.541 |
| Charge-sustaining driving range, adjusted (mi) [3] | 226.852 | 219.719 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | 0.929 | 0.651 |
| **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| CD cost per mile - electricity ($/mi) [3] | $ 0.069 | $ 0.072 |
| CD cost per mile - gasoline ($/mi) [3] | $ - | $ - |
| CD total cost per mile ($/mi) [3] | $ 0.069 | $ 0.072 |
| CS cost per mile ($/mi) [3] | $ 0.148 | $ 0.152 |
| Composite CD/CS cost ($/mi) [3] | $ 0.087 | $ 0.092 |
| **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| Composite CD/CS CO2, adjusted (g/mi) [1] | 91.2 | 101.4 |
| Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 44.1032 | 41.5586 |

### DETAILED CALCULATIONS — UDDS — SUSTAIN

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 City Fleet Utility Factor [3] | 55/45 City FUF x CREE | 55/45 City FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-hours | W-hours | W-hours | mi | gal/mi equiv | gal/mi equiv | UF | UF | gal/mi equiv | gal-equiv | % |
| 1 | 0.0000 | 0 | -6.194 | -2480.7 | 2933.1 | 7.45 | 0.011712341 | 0.0117 | 0.243 | 0.0000 | 0.0028 | 0.0870 | 0.7000 |
| 2 | 0.0000 | 0 | -5.984 | -2345.7 | 2773.5 | 14.90 | 0.011075033 | 0.0111 | 0.183 | 0.0000 | 0.0020 | 0.0823 | 0.7000 |
| 3 | 0.0000 | 0 | -6.092 | -2342.4 | 2769.6 | 22.35 | 0.01105946 | 0.0111 | 0.137 | 0.0000 | 0.0015 | 0.0822 | 0.7000 |
| 4 | 0.0000 | 0 | -6.186 | -2335.2 | 2761.0 | 29.80 | 0.011025118 | 0.0110 | 0.103 | 0.0000 | 0.0011 | 0.0819 | 0.7000 |
| 5 | 0.0000 | 0 | -6.297 | -2329.9 | 2754.8 | 37.25 | 0.010985575 | 0.0110 | 0.077 | 0.0000 | 0.0008 | 0.0817 | 0.7000 |
| 6 | 0.0000 | 0 | -6.403 | -2330.7 | 2755.7 | 44.70 | 0.010989164 | 0.0110 | 0.057 | 0.0000 | 0.0006 | 0.0818 | 0.7000 |
| 7 | 0.0000 | 0 | -6.445 | -2320.2 | 2743.3 | 52.15 | 0.010969203 | 0.0110 | 0.043 | 0.0000 | 0.0005 | 0.0814 | 0.7000 |
| 8 | 0.0000 | 0 | -6.547 | -2334.0 | 2759.6 | 59.60 | 0.011019528 | 0.0110 | 0.032 | 0.0000 | 0.0004 | 0.0819 | 0.7000 |
| 9 | 0.0000 | 0 | -6.582 | -2326.7 | 2751.0 | 67.05 | 0.01094101 | 0.0109 | 0.025 | 0.0000 | 0.0003 | 0.0816 | 0.7000 |
| 10 | 0.0000 | 0 | -6.646 | -2326.1 | 2750.3 | 74.50 | 0.010938226 | 0.0109 | 0.019 | 0.0000 | 0.0002 | 0.0816 | 0.7000 |
| 11 | 0.0916 | 798 | -4.764 | -1646.0 | 1946.2 | 81.95 | 0.007740238 | 0.0200 | 0.015 | 1.6200 | 0.0003 | 0.1494 | 0.7329 |
| 12 | 0.2346 | 2059 | 0.032 | 11.0 | -13.0 | 89.40 | -5.1702E-05 | 0.0314 | 0.011 | 3.0580 | 0.0003 | 0.2342 | 0.7749 |

| Cycle No. | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption | 43/57 City Fleet Utility Factor [3] | 43/57 City FUF x Adjusted Total Fuel Consumption Rate | 43/57 City 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | miles | miles | UF | g/mi | gal/mi equiv | UF | gal/mi equiv | g/mi | CD or CS | | CD or CS | |
| 1 | 5.20100 | 5.215000 | 0.155 | 0 | 0.002593447 | 0.198 | 0.003312919 | 0 | CD | 1.000 | CD | 1.000 |
| 2 | 5.20100 | 10.430000 | 0.126 | 0 | 0.001993506 | 0.159 | 0.002515615 | 0 | CD | 1.000 | CD | 0.486 |
| 3 | 5.20100 | 15.645000 | 0.103 | 0 | 0.00162732 | 0.126 | 0.001990703 | 0 | CD | 1.000 | CD | 0.327 |
| 4 | 5.20100 | 20.860000 | 0.086 | 0 | 0.001354515 | 0.100 | 0.001575017 | 0 | CD | 1.000 | CD | 0.246 |
| 5 | 5.20800 | 26.075000 | 0.071 | 0 | 0.001114251 | 0.080 | 0.001255494 | 0 | CD | 1.000 | CD | 0.197 |
| 6 | 5.20800 | 31.290000 | 0.059 | 0 | 0.00092623 | 0.063 | 0.000989025 | 0 | CD | 1.000 | CD | 0.165 |
| 7 | 5.19400 | 36.51 | 0.049 | 0 | 0.000767844 | 0.050 | 0.000783514 | 0 | CD | 1.000 | CD | 0.141 |
| 8 | 5.20100 | 41.72 | 0.041 | 0 | 0.000645429 | 0.040 | 0.000629687 | 0 | CD | 1.000 | CD | 0.124 |
| 9 | 5.22200 | 46.94 | 0.035 | 0 | 0.000547051 | 0.032 | 0.00050016 | 0 | CD | 1.000 | CD | 0.110 |
| 10 | 5.22200 | 52.15 | 0.030 | 0 | 0.000468781 | 0.026 | 0.000406277 | 0 | CD | 1.000 | CD | 0.099 |
| 11 | 5.46764 | 57.61 | 0.027 | 3.941728717 | 0.000737702 | 0.021 | 0.000573768 | 3.094441236 | CD | -2.810 | CD | 0.066 |
| 12 | 5.78112 | 63.38 | 0.023 | 8.191510263 | 0.00093178 | 0.018 | 0.000729219 | 6.457201852 | CD | -0.575 | CS based on 2% b | 0.000 |
| 13 | | | | | | | | | | 1.000 | | 1.000 |
| 14 | | | | | | | | | | 1.000 | | 1.000 |
| 15 | | | | | | | | | | 1.000 | | 1.000 |
| 16 | | | | | | | | | | 1.000 | | 1.000 |
| 17 | | | | | | | | | | 1.000 | | 1.000 |
| 18 | | | | | | | | | | 1.000 | | 1.000 |
| 19 | | | | | | | | | | 1.000 | | 1.000 |
| 20 | | | | | | | | | | 1.000 | | 1.000 |
| 21 | | | | | | | | | | 1.000 | | 1.000 |
| 22 | | | | | | | | | | 1.000 | | 1.000 |
| 23 | | | | | | | | | | 1.000 | | 1.000 |
| 24 | | | | | | | | | | 1.000 | | 1.000 |
| 25 | | | | | | | | | | 1.000 | | 1.000 |
| 26 | | | | | | | | | | 1.000 | | 1.000 |
| 27 | | | | | | | | | | 1.000 | | 1.000 |
| 28 | | | | | | | | | | 1.000 | | 1.000 |
| 29 | | | | | | | | | | 1.000 | | 1.000 |
| 30 | | | | | | | | | | 1.000 | | 1.000 |
| 31 | | | | | | | | | | 1.000 | | 1.000 |
| 32 | | | | | | | | | | 1.000 | | 1.000 |
| 33 | | | | | | | | | | 1.000 | | 1.000 |
| 34 | | | | | | | | | | 1.000 | | 1.000 |
| 35 | | | | | | | | | | 1.000 | | 1.000 |

## Test Set #2

| | |
|---|---|
| Test Set name (e.g., Eco, Power): | |
| Production Volume (projected or actual): | |

| 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): | | |

### Results from Test Set #2: 0

| CAFE Values | City | Highway | Combined |
|---|---|---|---|
| A. PHEV meets dual fuel criteria: | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | - | - | - |
| 2. Optional Utility Factor Composite MPGe [4] | - | - | - |
| B. PHEV does NOT meet dual fuel criteria: | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | - | - | - |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, without upstream emissions [1] | 0.0 | 0.0 | 0.0 |
| **Label Values (5-Cycle Adjusted)** | | | |
| Charge-Depleting | | | Combined |
| CD range, adjusted (miles) [0] | | | 0 |
| CD All-Electric Range, adjusted (mi) [0] | | | 0 |
| Total Driving Range (Miles) [0] | | | 0 |
| CD Fuel Economy (MPGe) [0] | | | 0 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 0 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| Charge-Sustaining | | | Combined |
| CS Fuel Economy (MPG) [0] | 0.0000 | 0.0000 | 0 |
| CS Fuel Consumption (gal/100mi) [1] | 0.0 | 0.0 | 0 |
| Composite CD/CS | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | - |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 7,500 |
| Composite CO2 (g/mi) [0] | | | 0 |
| Composite Fuel Economy (MPG) [0] | | | 0 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.000 | 0.000 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 0.0000 | 0.0000 | 0.0000 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.000 | 0.000 | 0.0000 |
| Unadjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Unadjusted GHG (g/mi) [1] | - | - | - |
| Adjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Adjusted GHG (g/mi) [1] | 0.0 | 0.0 | 0.0 |

### INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #2: 0

| Charge-Depleting (CD) Test Results | CITY | HIGHWAY |
|---|---|---|
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD driving distance (Rcda), unadjusted (miles) [3] | 0.000 | 0.000 |
| CD driving distance (Rcda), adjusted (miles) [3] | 0.000 | 0.000 |
| CD all-electric driving distance, unadjusted (miles) [3] | 0.000 | 0.000 |
| CD All-Electric Range, adjusted (mi) [3] | 0.000 | 0.000 |
| **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 0.000 | 0.000 |
| CD test total DC energy consumed, unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| NEW CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.0000 | 0.0000 |
| CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| CD gasoline consumption (Rcda), adjusted (gal) [1] | 0 | 0 |
| CD fuel economy (Rcda), adjusted (MPGe) [4] | 0.0000 | 0.0000 |
| CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW CD fuel economy (Rcda), unadjusted (MPGe) [4] | 0 | 0 |
| NEW CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 0 | 0 |
| **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.000 | 0.000 |
| MDIUF based on adjusted Rcda [3] | 0.000 | 0.000 |
| MDIUF based on adjusted Rcdc [3] | 0.000 | 0.000 |
| Fraction of transition cycle that is charge-depleting operation (Zn) [3] | #VALUE! | #VALUE! |
| Number of last cycle number with charge-depleting operation (transition cycle) [0] | EOT ERROR | EOT ERROR |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | |
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | #VALUE! | #VALUE! |
| Charge-sustaining driving range, adjusted (mi) [3] | 0.000 | 0.000 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | #VALUE! | #VALUE! |
| **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| CD cost per mile - electricity ($/mi) [3] | $ - | $ - |
| CD cost per mile - gasoline ($/mi) [3] | #VALUE! | #VALUE! |
| CD total cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| CS cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| Composite CD/CS cost ($/mi) [3] | #VALUE! | #VALUE! |
| **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| Composite CD/CS CO2, adjusted (g/mi) [1] | 0.0 | 0.0 |
| Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 0 | 0 |

## Test Set #3

### Results from Test Set #3: 0

| CAFE Values | City | Highway | Combined |
|---|---|---|---|
| A. PHEV meets dual fuel criteria: | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | - | - | - |
| 2. Optional Utility Factor Composite MPGe [4] | - | - | - |
| B. PHEV does NOT meet dual fuel criteria: | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | - | - | - |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, without upstream emissions [1] | 0.0 | 0.0 | 0.0 |
| **Label Values (5-Cycle Adjusted)** | | | |
| Charge-Depleting | | | Combined |
| CD range, adjusted (miles) [0] | | | 0 |
| CD All-Electric Range, adjusted (mi) [0] | | | 0 |
| Total Driving Range (Miles) [0] | | | 0 |
| CD Fuel Economy (MPGe) [0] | | | 0 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 0 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| Charge-Sustaining | | | Combined |
| CS Fuel Economy (MPG) [0] | 0.0000 | 0.0000 | 0 |
| CS Fuel Consumption (gal/100mi) [1] | 0.0 | 0.0 | 0 |
| Composite CD/CS | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | - |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 7,500 |
| Composite CO2 (g/mi) [0] | | | 0 |
| Composite Fuel Economy (MPG) [0] | | | 0 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.000 | 0.000 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 0.0000 | 0.0000 | 0.0000 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.000 | 0.000 | 0.0000 |
| Unadjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Unadjusted GHG (g/mi) [1] | - | - | - |
| Adjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Adjusted GHG (g/mi) [1] | 0.0 | 0.0 | 0.0 |

### INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #3: 0

| Charge-Depleting (CD) Test Results | CITY | HIGHWAY |
|---|---|---|
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD driving distance (Rcda), unadjusted (miles) [3] | 0.000 | 0.000 |
| CD driving distance (Rcda), adjusted (miles) [3] | 0.000 | 0.000 |
| CD all-electric driving distance, unadjusted (miles) [3] | 0.000 | 0.000 |
| CD All-Electric Range, adjusted (mi) [3] | 0.000 | 0.000 |
| **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 0.000 | 0.000 |
| CD test total DC energy consumed, unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| NEW CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.0000 | 0.0000 |
| CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| CD gasoline consumption (Rcda), adjusted (gal) [1] | 0 | 0 |
| CD fuel economy (Rcda), adjusted (MPGe) [4] | 0.0000 | 0.0000 |
| CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW CD fuel economy (Rcda), unadjusted (MPGe) [4] | 0 | 0 |
| NEW CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 0 | 0 |
| **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.000 | 0.000 |
| MDIUF based on adjusted Rcda [3] | 0.000 | 0.000 |
| MDIUF based on adjusted Rcdc [3] | 0.000 | 0.000 |
| Fraction of transition cycle that is charge-depleting operation (Zn) [3] | #VALUE! | #VALUE! |
| Number of last cycle number with charge-depleting operation (transition cycle) [0] | EOT ERROR | EOT ERROR |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | |
| **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | #VALUE! | #VALUE! |
| Charge-sustaining driving range, adjusted (mi) [3] | 0.000 | 0.000 |
| **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | #VALUE! | #VALUE! |
| **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| CD cost per mile - electricity ($/mi) [3] | $ - | $ - |
| CD cost per mile - gasoline ($/mi) [3] | #VALUE! | #VALUE! |
| CD total cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| CS cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| Composite CD/CS cost ($/mi) [3] | #VALUE! | #VALUE! |
| **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| Composite CD/CS CO2, adjusted (g/mi) [1] | 0.0 | 0.0 |
| Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 0 | 0 |

DETAILED CALCULATIONS HFET SUSTAIN

| Cycle No. | Gasoline Consumed | CO2 [8] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate |
|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-Hours | W-hours | W-hours | mi | gal/thousand |
| 1 | 0.0000 | 0.0000 | -8.851 | 3597.0000 | 4132.1000 | 18.80 | 0.01139107 |
| 2 | 0.0000 | 0.0000 | -8.804 | 3411.0000 | 3992.5000 | 20.60 | 0.01153405 |
| 3 | 0.0000 | 0.0000 | -9.023 | 3397.2000 | 3875.7000 | 38.90 | 0.01148147 |
| 4 | 0.0000 | 0.0000 | -9.144 | 3355.8000 | 3927.2000 | 41.20 | 0.01159437 |
| 5 | 0.0000 | 0.0000 | -9.481 | 3414.6000 | 3996.1000 | 55.50 | 0.01155657 |
| 6 | 0.0000 | 0.0000 | -9.421 | 3344.5000 | 3914.8000 | 61.80 | 0.01129226 |
| 7 | 0.0000 | 0.0000 | -7.589 | 3000.0000 | 3508.2000 | 82.40 | 0.01151364 |
| 8 | 0.1611 | 1511.0000 | -7.589 | 400.8000 | 5048.3000 | 92.40 | 0.01921815 |
| 9 | 0.1161 | 2947.0000 | -0.027 | 9.3000 | 10.9000 | 92.70 | 1.148925E-05 |
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| Cycle No. | Total Fuel Consumption Rate (gas + electric) | 55/45 Highway Fleet Utility Factor [3] | 55/45 Highway FUF x CR55 | 55/45 Highway FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDKUF [3] | MDKUF x Adjusted CO2 | MDKUF x Adjusted Total Fuel Consumption | 45/55 Highway Fleet Utility Factor [3] | FUF x Adjusted Total Fuel Consumption Rate | 45/55 Highway FUF x Adjusted CR55 | Is Cycle CD or CS Tolerance? | MEC Tolerance 1% Fuel Energy Criteria | Is Cycle CD or CS Based on MEC 1% Tolerance? | MEC Tolerance 2% Usable Battery Energy Criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal/thousand | LUF | LUF | gal/thousand | gal/mile | % | miles | miles | LUF | g/mi | gal/mile | LUF | gal/mile | gal/mi | CD or CS | | CD or CS | |
| 1 | 0.0115 | 0.0000 | 0.0000 | 0.0000 | 0.0000 | 0.7000 | 7.189 | 7.21 | 0.0000000 | 0 | 0.00000000 | 0.0870 | 0.00000000 | | CD | 1.000 | CD | 1.000 |
| 2 | 0.0115 | 0.0137 | 0.0000 | 0.0013 | 0.1165 | 0.7000 | 7.189 | 14.42 | 0.1165000 | 0 | 0.00157045 | 0.0940 | 0.00014491 | | CD | 1.000 | CD | 1.000 |
| 3 | 0.0115 | 0.109 | 0.0000 | 0.0012 | 0.1180 | 0.7000 | 7.189 | 21.63 | 0.1190000 | 0 | 0.00159259 | 0.0870 | 0.00014748 | | CD | 1.000 | CD | 1.000 |
| 4 | 0.0114 | 0.092 | 0.0000 | 0.0013 | 0.1165 | 0.7000 | 7.182 | 28.84 | 0.0920000 | 0 | 0.00124953158 | 0.0800 | 0.00019376 | | CD | 1.000 | CD | 1.000 |
| 5 | 0.0115 | 0.079 | 0.0000 | 0.0009 | 0.1180 | 0.7000 | 7.182 | 36.05 | 0.0790000 | 0 | 0.00118858 | 0.0720 | 0.00018858 | | CD | 1.000 | CD | 1.000 |
| 6 | 0.0113 | 0.067 | 0.0000 | 0.0009 | 0.1165 | 0.7000 | 7.196 | 43.26 | 0.0660000 | 0 | 0.00090369 | 0.0640 | 0.00010796 | | CD | 1.000 | CD | 1.000 |
| 7 | 0.0115 | 0.054 | 0.0000 | 0.0007 | 0.1180 | 0.7000 | 7.205 | 51.47 | 0.0540000 | 0 | 0.00062025 | 0.0560 | 0.00010350 | | CD | 1.000 | CD | 1.000 |
| 8 | 0.0192 | 0.041 | 0.0013 | 0.0543 | 0.7213 | 0.7000 | 7.205 | 57.87 | 0.0500000 | 13.55700439 | 0.00145923 | 0.0500 | 0.00030160 | 35.88057431 | CD | 1.000 | CD | 0.000 |
| 9 | 1.1488 | 0.029 | 11.1930 | 0.0011 | 0.3340 | 0.7182 | 7.376 | 65.19 | 0.0290000 | 17.58968757 | 0.00111633 | 0.0410 | 0.00045106 | 17.44210654 | CD | 0.941 | CS based on 2% | 0.000 |
| 10 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 11 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 12 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 13 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 14 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 15 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 17 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 19 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 35 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |

DETAILED CALCULATIONS HFET Q

| Cycle No. | Gasoline Consumed | CO2 [8] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate |
|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-Hours | W-hours | W-hours | mi | gal/thousand |
| 1 | | | | | | | |
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| 34 | | | | | | | |
| 35 | | | | | | | |

| Cycle No. | Total Fuel Consumption Rate (gas + electric) | 55/45 Highway Fleet Utility Factor [3] | 55/45 Highway FUF x CR55 | 55/45 Highway FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDKUF [3] | MDKUF x Adjusted CO2 | MDKUF x Adjusted Total Fuel Consumption | 45/55 Highway Fleet Utility Factor [3] | FUF x Adjusted Total Fuel Consumption Rate | 45/55 Highway FUF x Adjusted CR55 | Is Cycle CD or CS Tolerance? | MEC Tolerance 1% Fuel Energy Criteria | Is Cycle CD or CS Based on MEC 1% Tolerance? | MEC Tolerance 2% Usable Battery Energy Criteria |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal/thousand | LUF | LUF | gal/thousand | gal/mile | % | miles | miles | LUF | g/mi | gal/mile | LUF | gal/mile | gal/mi | CD or CS | | CD or CS | |
| 1 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 2 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 3 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 4 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 5 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 6 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 7 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 8 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 9 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 10 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 11 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 12 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 13 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 14 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 15 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 16 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 17 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 18 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 19 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 20 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 21 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 22 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 23 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 24 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 25 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 26 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 27 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 28 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 29 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 30 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 31 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 32 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 33 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 34 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 35 | | | | | | | | | | | | | | | | 1.000 | | 1.000 |

**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 | 57.6054 | 63.8286 | 60.2488 |
| → 2. Optional Utility Factor Composite MPGe ← | 179.7896 | 90.3817 | 124.4088 |
| B. PHEV does NOT meet dual fuel criteria: | City | Highway | Combined |
| 1. Utility Factor Composite MPGe | 89.5647 | 65.4201 | 76.8083 |
| Based on the all-electric range, is this PHEV a dual fuel vehicle for CAFE? | | | YES |
| | City | Highway | Combined |
| All-Electric Range (miles, unadjusted) | 88.70 | 86.30 | 87.6 |

| GHG Values | City | Highway | Combined |
|---|---|---|---|
| Composite CREE, no DF (g/mi) | 15.6 | 72.5 | 41.2 |

| Label Values (5-Cycle Adjusted) | | | |
|---|---|---|---|
| **Charge-Depleting** | City | Highway | Combined |
| Charge-depleting Range (Miles) | 62.00 | 60.28 | 61 |
| All-Electric Range (Miles) | 62.11 | 60.40 | 61 |
| Total Driving Range (Miles) | | | 330 |
| CD Fuel Economy (MPGe) | 71.0511 | 69.1167 | 70 |
| CD Electricity Consumption (kW-hr/100mi) | 47.4590 | 48.7530 | 48.0413 |
| CD Gasoline Consumption (gal/100mi) | 0.0 | 0.0 | 0.0 |
| **Charge-Sustaining** | City | Highway | Combined |
| CS Fuel Economy (MPG) | 26.7 | 24.9 | 26 |
| CS Fuel Consumption (gal/100mi) | 3.8 | 4.0 | 3.8 |
| **Composite CD/CS** | City | Highway | Combined |
| Annual Fuel Cost ($/year) | | | $ 1,100 |
| 5-Year Fuel Savings Value ($/5 years) | | You SAVE: | $ 2,000 |
| Composite CO2 (g/mi) | 67.4 | 73.8 | 70 |
| Composite Fuel Economy (MPG) | 52.8056 | 50.2055 | 52 |
| MPG Rating (on scale of 1-10) | | | 9 |
| GHG Rating (on scale of 1-10) | | | 10 |

| 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 | |
|---|---|---|---|
| Fleet Utility Factor (43/57) | 0.9120 | 0.6410 | |
| Unadjusted Fuel Economy (MPG) | 89.5647 | 65.4201 | |
| Unadjusted GHG (g/mi) | 15.6000 | 72.5000 | |
| Adjusted Fuel Economy (MPG) | 61.0929 | 40.9548 | |
| Adjusted GHG (g/mi) | 30.4 | 137.3 | |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda | 0.8730 | 0.8680 | |
| Composite CD/CS Fuel Economy (MPGe) | 80.0 | 80.8 | 80.4 |

| Fueleconomy.gov Values | | |
|---|---|---|
| **Charge-sustaining Efficiency** | | MPG |
| City FE (Guide) - Conventional Fuel | | 27 |
| Hwy FE (Guide) - Conventional Fuel | | 25 |
| Comb FE (Guide) - Conventional Fuel | | 26 |
| City Unadj FE - Conventional Fuel | | 32.6 |
| Hwy Unadj FE - Conventional Fuel | | 36.8 |
| Comb Unadj FE - Conventional Fuel | | 34.3649 |
| City Unrd Adj FE - Conventional Fuel | | 26.6545 |
| Hwy Unrd Adj FE - Conventional Fuel | | 24.8647 |
| Comb Unrd Adj FE - Conventional Fuel | | 25.8182 |
| **Charge-sustaining CO2** | | g/mi |
| City CO2 Rounded Adjusted | | 332 |
| Hwy CO2 Rounded Adjusted | | 356 |
| Comb CO2 Rounded Adjusted | | 343 |
| *City CO2 Unadj | | 271.0 |
| *Hwy CO2 Unadj | | 241.0 |
| *Comb CO2 Unadj | | 257.5 |
| *City CO2 Unrd Adj | | 332.1 |
| *Hwy CO2 Unrnd Adj | | 356.1 |
| *Comb CO2 Unrnd Adj | | 342.9 |
| **Charge-sustaining Driving Range (Adjusted)** | | |
| *Range1 - Model Type Driving Range - Conventional Fuel - City | | 275 |
| *Range1 - Model Type Driving Range - Conventional Fuel - Hwy | | 256 |
| Range1 - Model Type Driving Range - Conventional Fuel - Comb | | 266 |
| **Charge-depleting Efficiency** | kW-hr/100mi | MPGe |
| City2 FE (Guide) - Alternative Fuel | 47 | 71 |
| Hwy2 Fuel FE (Guide) - Alternative Fuel | 49 | 69 |
| Comb2 Fuel FE (Guide) - Alternative Fuel | 48 | 70 |
| City2 Unadj FE - Alternative Fuel | 33.2 | 101.5 |
| Hwy2 Unadj FE - Alternative Fuel | 34.1 | 98.7 |
| Comb2 Unadj FE - Alternative Fuel | 33.6050 | 100.2206 |
| City2 Unrd Adj FE - Alternative Fuel | 47.4590 | 71.0511 |
| Hwy2 Unrd Adj FE - Alternative Fuel | 48.7530 | 69.1167 |
| Cmb2 Unrd Adj FE - Alternative Fuel | 48.0413 | 70.1674 |
| **Charge-depleting CO2** | | g/mi |
| City CO2 Rounded Adj | | 0 |
| Hwy CO2 Rounded Adj | | 0 |
| Comb CO2 Rounded Adj | | 0 |
| *City CO2 Unadj | | 0 |
| *Hwy CO2 Unadj | | 0 |
| *Comb CO2 Unadj | | 0 |
| *City CO2 Unrd Adj | | 0 |
| *Hwy CO2 Unrnd Adj | | 0 |
| *Comb CO2 Unrnd Adj | | 0 |
| **Charge-depleting Driving Range (Adjusted)** | | miles |
| City Range on Electricity (miles) | | 62.00 |
| Hwy Range on Electricity (miles) | | 60.28 |
| Comb Range on Electricity as shown on FE Label (miles) | | 61 |
| **All-Electric Driving Range (Adjusted)** | | miles |
| City All-Electric Range | | 62.11 |
| Hwy All-Electric Range | | 60.40 |
| Comb All-Electric Range as shown on FE Label (miles) | | 61.0 |
| **Charge-depleting Utility Factors** | | UF |
| City Utility Factor (MDIUF) | | 0.8 |
| Hwy Utility Factor (MDIUF) | | 0.793 |
| Comb Utility Factor (MDIUF) | | 0.797 |
| **Composite Efficiency (Adjusted)** | | MPGe |
| City PHEV Composite MPGe | | 53 |
| Hwy PHEV Composite MPGe | | 50 |
| Comb PHEV Composite MPGe | | 52 |
| **Composite CO2 (Adjusted)** | | g/mi |
| City CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 67 |
| Hwy CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 74 |
| CO2-PHEV Composite Rounded Adjusted Combined CO2 | | 70 |
| **PHEV Total Driving Range (Adjusted)** | | miles |
| | | 330 |

## ENTER BASIC VEHICLE INFORMATION HERE

| Vehicle Information | |
|---|---|
| Model year: | 2021 |
| Vehicle category: | PV |
| Manufacturer name: | Karma |
| Model name: | Revero GTS |
| Liquid fuel type: | Premium Unleaded |
| Additional descriptors as needed: | 22" wheel size 5500lbs |
| Fuel tank size (U.S. gallons) | 10.3 |
| **Deterioration Factors for GHG (CREE) Values (optional** | Yes |
| Select the type of DF to apply: | None |
| Enter a single DF for City and Highway: | |
| Enter a City DF : | |
| Enter a Highway DF: | |
| **Inputs & Conversions (most of these should not be changed)** | |
| DOE Petroleum Equivalence Factor (PEF): | 82049 |
| Watt-hours of energy per gallon of gasoline: | 33705 |
| Grams of CO2 per gallon of gasoline/diesel: | 8887 |
| Fuel lower heating value (kJ/kg): | 43020 |
| Fuel density (kg/gal): | 2.805 |

**ERROR AND VALIDATION MESSAGES**

This calculator automatically selects the appropriate CAFE value for 2016 and later model year PHEVs. If the PHEV is a dual fuel vehicle for purposes of CAFE, the better of a 50/50 weighting or a utility factor calculation will be selected. The statute requires manufacturers to request use of the utility factor method for 2016 and later PHEVs. Submitting this spreadsheet to EPA, filled out completely and correctly, will constitute such a request. Prior to 2016 the 50/50 weighting option must be used.

## Test Set #1

| Test Set name (e.g., Eco, Power): | SUSTAIN |
|---|---|
| Production Volume (projected or actual): | |

**ENTER CHARGE-SUSTAINING TEST RESULTS HERE**

| | City | Highway |
|---|---|---|
| Fuel Economy, Unadjusted (MPG): | 32.6 | 36.8 |
| Fuel Economy, Adjusted (MPG): | 26.6545 | 24.8647 |
| CREE (g/mi): | 272.0 | 241.0 |
| CO2, Unadjusted (g/mi): | 271 | 241 |
| CO2, Adjusted (g/mi): | 332.1 | 356.1 |

**ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE**

| Cycle No. | Cycle/Phase Measured Distance | Integrated Amp-Hours Electricity Used | Average Cycle Voltage | Fuel Economy | CO2 | CREE |
|---|---|---|---|---|---|---|
| No. | Miles [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | 7.476 | -5.459 | 401.00 | | | |
| 2 | 7.491 | -10.846 | 393.50 | | | |
| 3 | 7.501 | -16.294 | 386.50 | | | |
| 4 | 7.490 | -21.780 | 380.00 | | | |
| 5 | 7.491 | -27.349 | 373.50 | | | |
| 6 | 7.476 | -32.994 | 367.00 | | | |
| 7 | 7.494 | -38.725 | 362.00 | | | |
| 8 | 7.491 | -44.471 | 359.00 | | | |
| 9 | 7.481 | -50.267 | 356.50 | | | |
| 10 | 7.470 | -56.167 | 354.00 | | | |
| 11 | 7.523 | -62.082 | 350.50 | | | |
| 12 | 7.501 | -66.964 | 346.50 | 175.0 | 50 | 51 |
| 13 | 7.493 | -67.051 | 344.00 | 42.0 | 210 | 211 |
| 14 | | | | | | |
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| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | 29.425 |
| All-Electric Range (miles): | | | | | | 88.731 |
| Calculated transition cycle: 12 | | | To override transition cycle, 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 [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | 10.330 | -7.847 | 394.00 | | | |
| 2 | 10.330 | -15.529 | 384.00 | | | |
| 3 | 10.320 | -23.253 | 374.00 | | | |
| 4 | 10.240 | -31.024 | 366.00 | | | |
| 5 | 10.330 | -39.068 | 360.00 | | | |
| 6 | 10.330 | -47.305 | 356.00 | | | |
| 7 | 10.311 | -55.544 | 352.00 | | | |
| 8 | 10.310 | -63.900 | 346.00 | | | |
| 9 | 10.300 | -66.835 | 345.00 | 55.8 | 158 | 159 |
| 10 | 10.317 | -66.824 | 345.00 | 37.5 | 236 | 236 |
| 11 | | | | | | |
| 12 | | | | | | |
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| 32 | | | | | | |
| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | 29.389 |
| All-Electric Range (miles): | | | | | | 86.281 |
| Calculated transition cycle: 9 | | | To override transition cycle, enter here---> | | | |

## Results from Test Set #1: SUSTAIN

| CAFE Values | | | |
|---|---|---|---|
| **A. PHEV meets dual fuel criteria:** | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | 57.6054 | 63.8286 | 60.2488 |
| 2. Optional Utility Factor Composite MPGe [4] | 179.7896 | 90.3817 | 124.4088 |
| **B. PHEV does NOT meet dual fuel criteria:** | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | 89.5647 | 65.4201 | 76.8083 |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, (g/mi) [1] | 15.6 | 72.5 | 41.2 |
| **Label Values (5-Cycle Adjusted)** | | | |
| **Charge-Depleting** | | | Combined |
| CD range, adjusted (miles) [0] | | | 61 |
| CD All-Electric Range, adjusted (mi) [0] | | | 61 |
| Total Driving Range (Miles) [0] | | | 330 |
| CD Fuel Economy (MPGe) [0] | | | 70 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 48 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| **Charge-Sustaining** | | | Combined |
| CS Fuel Economy (MPG) [0] | 26.6545 | 24.8647 | 26 |
| CS Fuel Consumption (gal/100mi) [1] | 3.8 | 4.0 | 3.8 |
| **Composite CD/CS** | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | 1,100 |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 2,000 |
| Composite CO2 (g/mi) [0] | | | 70 |
| Composite Fuel Economy (MPG) [0] | | | 52 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.873 | 0.868 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 80.0231 | 80.7870 | 80.3651 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.912 | 0.641 | 0.7901 |
| Unadjusted Fuel Economy (MPG) [4] | 89.5647 | 65.4201 | 76.8083 |
| Unadjusted GHG (g/mi) [1] | 15.6 | 72.5 | 41.2 |
| Adjusted Fuel Economy (MPG) [4] | 61.0929 | 40.9548 | 50.0240 |
| Adjusted GHG (g/mi) [1] | 30.4 | 137.3 | 78.5 |

## INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #1: SUSTAIN

| Charge-Depleting (CD) Test Results | | | |
|---|---|---|---|
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD driving distance (Rcda), unadjusted (miles) [3] | 88.572 | 86.116 |
| | CD driving distance (Rcda), adjusted (miles) [3] | 62.001 | 60.281 |
| | CD all-electric driving distance, unadjusted (miles) [3] | 88.731 | 86.281 |
| | CD All-Electric Range, adjusted (mi) [3] | 62.112 | 60.397 |
| | **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW | CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 29389.5 | 29393.6 |
| | CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 47.459 | 48.753 |
| | CD test total DC energy consumed, unadjusted (Watt-hours) [1] | -24738.0 | -24402.9 |
| NEW | CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.8726 | 0.8722 |
| | CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.009478 | 0.007813 |
| NEW | CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.013067 | 0.009979 |
| NEW | CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.011509 | 0.012317 |
| | CD gasoline consumption (Rcda), unadjusted (gal) [1] | 0 | 0 |
| | CD fuel economy (Rcda), adjusted (MPGe) [4] | 71.0511 | 69.1167 |
| | CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW | CD fuel economy (Rcda), unadjusted (MPGe) [4] | 101.5006 | 98.7384 |
| NEW | CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 33.207 | 34.136 |
| | **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| | CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 1.6 | 6.5 |
| | CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 0.6 | 6.2 |
| NEW | CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 1.2 | 9.5 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.945 | 0.725 |
| | MDIUF based on adjusted Rcda [3] | 0.800 | 0.793 |
| | MDIUF based on adjusted Rcdc [3] | 0.802 | 0.811 |
| | Fraction of transition cycle that is charge-depleting operation (Zn) [3] | 0.825 | 0.351 |
| | Number of last cycle number with charge-depleting operation (transition cycle) [0] | 12 | 9 |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | | |
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | 88.572 | 86.116 |
| | Charge-sustaining driving range, adjusted (mi) [3] | 274.541 | 256.106 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | 0.943 | 0.700 |
| | **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| | CD cost per mile - electricity ($/mi) [3] | $ 0.062 | $ 0.063 |
| | CD cost per mile - gasoline ($/mi) [3] | $ - | $ - |
| | CD total cost per mile ($/mi) [3] | $ 0.062 | $ 0.063 |
| | CS cost per mile ($/mi) [3] | $ 0.122 | $ 0.131 |
| | Composite CD/CS cost ($/mi) [3] | $ 0.074 | $ 0.077 |
| | **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| | Composite CD/CS CO2, adjusted (g/mi) [1] | 67.4 | 73.8 |
| | Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 52.8056 | 50.2055 |

## DETAILED CALCULATIONS — UDDS — SUSTAIN

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 City Fleet Utility Factor [3] | 55/45 City FUF x CREE | 55/45 City FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-hours | W-hours | W-hours | mi | gal/mi equiv | gal/mi equiv | UF | UF | gal/mi equiv | gal-equiv | % | miles | miles | UF | g/mi | gal/mi equiv |
| 1 | 0.0000 | 0 | -5.459 | -2189.1 | 2603.9 | 7.45 | 0.010333815 | 0.0103 | 0.243 | 0.0000 | 0.0025 | 0.0773 | 0.7000 | 5.23320 | 5.215000 | 0.155 | 0 | 0.002288202 |
| 2 | 0.0000 | 0 | -5.387 | -2119.8 | 2521.4 | 14.90 | 0.009986369 | 0.0100 | 0.183 | 0.0000 | 0.0018 | 0.0748 | 0.7000 | 5.24370 | 10.430000 | 0.126 | 0 | 0.001797546 |
| 3 | 0.0000 | 0 | -5.448 | -2105.7 | 2504.7 | 22.35 | 0.009907001 | 0.0099 | 0.137 | 0.0000 | 0.0014 | 0.0743 | 0.7000 | 5.25070 | 15.645000 | 0.103 | 0 | 0.001457744 |
| 4 | 0.0000 | 0 | -5.486 | -2084.7 | 2479.7 | 29.80 | 0.009822522 | 0.0098 | 0.103 | 0.0000 | 0.0010 | 0.0736 | 0.7000 | 5.24300 | 20.860000 | 0.086 | 0 | 0.001206767 |
| 5 | 0.0000 | 0 | -5.569 | -2080.0 | 2474.1 | 37.25 | 0.009799031 | 0.0098 | 0.077 | 0.0000 | 0.0008 | 0.0734 | 0.7000 | 5.24370 | 26.075000 | 0.071 | 0 | 0.000993902 |
| 6 | 0.0000 | 0 | -5.645 | -2071.7 | 2464.2 | 44.70 | 0.009779403 | 0.0098 | 0.057 | 0.0000 | 0.0006 | 0.0731 | 0.7000 | 5.23320 | 31.290000 | 0.059 | 0 | 0.000824264 |
| 7 | 0.0000 | 0 | -5.731 | -2074.6 | 2467.7 | 52.15 | 0.00976977 | 0.0098 | 0.043 | 0.0000 | 0.0004 | 0.0732 | 0.7000 | 5.24580 | 36.51 | 0.049 | 0 | 0.000683884 |
| 8 | 0.0000 | 0 | -5.746 | -2062.8 | 2453.6 | 59.60 | 0.009717838 | 0.0097 | 0.032 | 0.0000 | 0.0003 | 0.0728 | 0.7000 | 5.24370 | 41.72 | 0.041 | 0 | 0.000569188 |
| 9 | 0.0000 | 0 | -5.796 | -2066.3 | 2457.8 | 67.05 | 0.009747485 | 0.0097 | 0.025 | 0.0000 | 0.0002 | 0.0729 | 0.7000 | 5.23670 | 46.94 | 0.035 | 0 | 0.000487374 |
| 10 | 0.0000 | 0 | -5.900 | -2088.6 | 2484.3 | 74.50 | 0.00986709 | 0.0099 | 0.019 | 0.0000 | 0.0002 | 0.0737 | 0.7000 | 5.22900 | 52.15 | 0.030 | 0 | 0.000422875 |
| 11 | 0.0000 | 0 | -5.915 | -2073.2 | 2466.0 | 81.95 | 0.009725405 | 0.0097 | 0.015 | 0.0000 | 0.0001 | 0.0732 | 0.7000 | 5.26610 | 57.37 | 0.025 | 0 | 0.000347336 |
| 12 | 0.0429 | 375 | -4.882 | -1691.6 | 2012.1 | 89.40 | 0.007958589 | 0.0137 | 0.011 | 0.5610 | 0.0002 | 0.1026 | 0.7000 | 5.25070 | 62.58 | 0.022 | 1.571428571 | 0.000429719 |
| 13 | 0.1784 | 1574 | -0.087 | -29.9 | 35.6 | 96.85 | 0.000140961 | 0.0240 | 0.009 | 1.8990 | 0.0002 | 0.1795 | 0.7514 | 5.62998 | 68.18 | 0.020 | 5.589825093 | 0.000637519 |
| 14 | | | | | | | | | | | | | | | | | | |
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## Test Set #2

| Test Set name (e.g., Eco, Power): | |
|---|---|
| Production Volume (projected or actual): | |

**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): | | |

**ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE**

| Cycle No. | Cycle/Phase Measured Distance | Integrated Amp-Hours Electricity Used | Average Cycle Voltage | Fuel Economy | CO2 | CREE |
|---|---|---|---|---|---|---|
| No. | Miles [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | | | | | | |
| 2 | | | | | | |
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| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | |
| All-Electric Range (miles): | | | | | | |
| Calculated transition cycle: ERROR | | | To override transition cycle, 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 [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | | | | | | |
| 2 | | | | | | |
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| 33 | | | | | | |
| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | |
| All-Electric Range (miles): | | | | | | |
| Calculated transition cycle: ERROR | | | To override transition cycle, enter here---> | | | |

## Results from Test Set #2: 0

| CAFE Values | | | |
|---|---|---|---|
| **A. PHEV meets dual fuel criteria:** | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | - | - | - |
| 2. Optional Utility Factor Composite MPGe [4] | - | - | - |
| **B. PHEV does NOT meet dual fuel criteria:** | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | - | - | - |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, without upstream emissions [1] | 0.0 | 0.0 | 0.0 |
| **Label Values (5-Cycle Adjusted)** | | | |
| **Charge-Depleting** | | | Combined |
| CD range, adjusted (miles) [0] | | | 0 |
| CD All-Electric Range, adjusted (mi) [0] | | | 0 |
| Total Driving Range (Miles) [0] | | | 0 |
| CD Fuel Economy (MPGe) [0] | | | 0 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 0 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| **Charge-Sustaining** | | | Combined |
| CS Fuel Economy (MPG) [0] | 0.0000 | 0.0000 | 0 |
| CS Fuel Consumption (gal/100mi) [1] | 0.0 | 0.0 | 0 |
| **Composite CD/CS** | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | - |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 7,500 |
| Composite CO2 (g/mi) [0] | | | 0 |
| Composite Fuel Economy (MPG) [0] | | | 0 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.000 | 0.000 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 0.0000 | 0.0000 | 0.0000 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.000 | 0.000 | 0.0000 |
| Unadjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Unadjusted GHG (g/mi) [1] | - | - | - |
| Adjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Adjusted GHG (g/mi) [1] | 0.0 | 0.0 | 0.0 |

## INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #2: 0

| Charge-Depleting (CD) Test Results | | | |
|---|---|---|---|
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD driving distance (Rcda), unadjusted (miles) [3] | 0.000 | 0.000 |
| | CD driving distance (Rcda), adjusted (miles) [3] | 0.000 | 0.000 |
| | CD all-electric driving distance, unadjusted (miles) [3] | 0.000 | 0.000 |
| | CD All-Electric Range, adjusted (mi) [3] | 0.000 | 0.000 |
| | **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW | CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| | CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 0.000 | 0.000 |
| | CD test total DC energy consumed, unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| NEW | CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.0000 | 0.0000 |
| | CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW | CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW | CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| | CD gasoline consumption (Rcda), adjusted (gal) [1] | 0 | 0 |
| | CD fuel economy (Rcda), adjusted (MPGe) [4] | 0.0000 | 0.0000 |
| | CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW | CD fuel economy (Rcda), unadjusted (MPGe) [4] | 0 | 0 |
| NEW | CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 0 | 0 |
| | **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| | CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| | CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.000 | 0.000 |
| | MDIUF based on adjusted Rcda [3] | 0.000 | 0.000 |
| | MDIUF based on adjusted Rcdc [3] | 0.000 | 0.000 |
| | Fraction of transition cycle that is charge-depleting operation (Zn) [3] | #VALUE! | #VALUE! |
| | Number of last cycle number with charge-depleting operation (transition cycle) [0] | EOT ERROR | EOT ERROR |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | | |
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | #VALUE! | #VALUE! |
| | Charge-sustaining driving range, adjusted (mi) [3] | 0.000 | 0.000 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | #VALUE! | #VALUE! |
| | **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| | CD cost per mile - electricity ($/mi) [3] | $ - | $ - |
| | CD cost per mile - gasoline ($/mi) [3] | #VALUE! | #VALUE! |
| | CD total cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| | CS cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| | Composite CD/CS cost ($/mi) [3] | #VALUE! | #VALUE! |
| | **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| | Composite CD/CS CO2, adjusted (g/mi) [1] | 0.0 | 0.0 |
| | Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 0 | 0 |

## DETAILED CALCULATIONS — UDDS — 0

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 City Fleet Utility Factor [3] | 55/45 City FUF x CREE | 55/45 City FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-hours | W-hours | W-hours | mi | gal/mi equiv | gal/mi equiv | UF | UF | gal/mi equiv | gal-equiv | % | miles | miles | UF | g/mi | gal/mi equiv |
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## Test Set #3

| Test Set name (e.g., Eco, Power): | |
|---|---|
| Production Volume (projected or actual): | |

**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): | | |

**ENTER CHARGE-DEPLETING UDDS (CITY) DATA HERE**

| Cycle No. | Cycle/Phase Measured Distance | Integrated Amp-Hours Electricity Used | Average Cycle Voltage | Fuel Economy | CO2 | CREE |
|---|---|---|---|---|---|---|
| No. | Miles [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | | | | | | |
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| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | |
| All-Electric Range (miles): | | | | | | |
| Calculated transition cycle: ERROR | | | To override transition cycle, 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 [3] | Amp-hrs [3] | Volts [2] | MPG [1] | g/mi [0] | g/mi [0] |
| 1 | | | | | | |
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| 34 | | | | | | |
| 35 | | | | | | |
| Recharge energy (AC kilowatt-hours): | | | | | | |
| All-Electric Range (miles): | | | | | | |
| Calculated transition cycle: ERROR | | | To override transition cycle, enter here---> | | | |

## Results from Test Set #3: 0

| CAFE Values | | | |
|---|---|---|---|
| **A. PHEV meets dual fuel criteria:** | City | Highway | Combined |
| 1. Default 50/50 Composite MPGe [4] | - | - | - |
| 2. Optional Utility Factor Composite MPGe [4] | - | - | - |
| **B. PHEV does NOT meet dual fuel criteria:** | City | Highway | Combined |
| 1. Utility Factor Composite MPGe [4] | - | - | - |
| **GHG Values** | City | Highway | Combined |
| Composite CREE, without upstream emissions [1] | 0.0 | 0.0 | 0.0 |
| **Label Values (5-Cycle Adjusted)** | | | |
| **Charge-Depleting** | | | Combined |
| CD range, adjusted (miles) [0] | | | 0 |
| CD All-Electric Range, adjusted (mi) [0] | | | 0 |
| Total Driving Range (Miles) [0] | | | 0 |
| CD Fuel Economy (MPGe) [0] | | | 0 |
| CD Electricity Consumption (kW-hr/100mi) [0] | | | 0 |
| CD Gasoline Consumption (gal/100mi) [0] | | | 0 |
| **Charge-Sustaining** | | | Combined |
| CS Fuel Economy (MPG) [0] | 0.0000 | 0.0000 | 0 |
| CS Fuel Consumption (gal/100mi) [1] | 0.0 | 0.0 | 0 |
| **Composite CD/CS** | | | Combined |
| Annual Fuel Cost ($/year) [0] | | | - |
| 5-Year Fuel Savings Value ($/5 years) [0] | | | 7,500 |
| Composite CO2 (g/mi) [0] | | | 0 |
| Composite Fuel Economy (MPG) [0] | | | 0 |
| **HOV Lane Values** | City | Highway | Combined |
| MDIUF based on unadjusted Rcda [3] | 0.000 | 0.000 | |
| Composite CD/CS Fuel Economy (MPGe) [4] | 0.0000 | 0.0000 | 0.0000 |
| **Trends Report Values** | City | Highway | Combined |
| Fleet Utility Factor (43/57) [3] | 0.000 | 0.000 | 0.0000 |
| Unadjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Unadjusted GHG (g/mi) [1] | - | - | - |
| Adjusted Fuel Economy (MPG) [4] | 0.0000 | 0.0000 | 0.0000 |
| Adjusted GHG (g/mi) [1] | 0.0 | 0.0 | 0.0 |

## INTERMEDIATE CALCULATIONS AND INPUTS — Test Set #3: 0

| Charge-Depleting (CD) Test Results | | | |
|---|---|---|---|
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD driving distance (Rcda), unadjusted (miles) [3] | 0.000 | 0.000 |
| | CD driving distance (Rcda), adjusted (miles) [3] | 0.000 | 0.000 |
| | CD all-electric driving distance, unadjusted (miles) [3] | 0.000 | 0.000 |
| | CD All-Electric Range, adjusted (mi) [3] | 0.000 | 0.000 |
| | **FUEL CONSUMPTION & ECONOMY VALUES** | CITY | HIGHWAY |
| NEW | CD AC electricity consumption (Rcdc), unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| | CD AC electricity consumption rate (Rcda), adjusted (kW-hr/100mi) [3] | 0.000 | 0.000 |
| | CD test total DC energy consumed, unadjusted (Watt-hours) [1] | 0.0 | 0.0 |
| NEW | CD Rcda total fuel consumption (Rcda), unadjusted (gal equiv) [4] | 0.0000 | 0.0000 |
| | CD utilitized total fuel consumption rate (55/45 FUF, Rcdc), unadjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW | CD utilitized total fuel consumption rate (43/57 FUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| NEW | CD utilitized total fuel consumption rate (MDIUF, Rcdc), adjusted (gal-equiv/mile) [6] | 0.000000 | 0.000000 |
| | CD gasoline consumption (Rcda), adjusted (gal) [1] | 0 | 0 |
| | CD fuel economy (Rcda), adjusted (MPGe) [4] | 0.0000 | 0.0000 |
| | CD gasoline consumption rate (Rcda), adjusted (gal/100mi) [4] | 0.0000 | 0.0000 |
| NEW | CD fuel economy (Rcda), unadjusted (MPGe) [4] | 0 | 0 |
| NEW | CD AC electricity consumption rate (Rcda), unadjusted (kW-hr/100mi) [3] | 0 | 0 |
| | **GHG EMISSIONS VALUES** | CITY | HIGHWAY |
| | CD CO2 emissions rate (Rcda), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD CO2 emissions rate (Rcda), adjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD utilitized CO2 (MDIUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| | CD utilitized CREE (55/45 FUF, Rcdc), unadjusted (g/mi) [1] | 0.0 | 0.0 |
| NEW | CD utilitized CREE (43/57 FUF, Rcdc), adjusted (g/mi) [1] | 0.0 | 0.0 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for Rcdc [3] | 0.000 | 0.000 |
| | MDIUF based on adjusted Rcda [3] | 0.000 | 0.000 |
| | MDIUF based on adjusted Rcdc [3] | 0.000 | 0.000 |
| | Fraction of transition cycle that is charge-depleting operation (Zn) [3] | #VALUE! | #VALUE! |
| | Number of last cycle number with charge-depleting operation (transition cycle) [0] | EOT ERROR | EOT ERROR |
| **Intermediate Results Requiring Charge-Sustaining (CS) Test Results or Other Inputs** | | | |
| | **DRIVING DISTANCE VALUES** | CITY | HIGHWAY |
| | CD Equivalent All-Electric Range (EAER), Unadjusted (mi) [3] | #VALUE! | #VALUE! |
| | Charge-sustaining driving range, adjusted (mi) [3] | 0.000 | 0.000 |
| | **UTILITY FACTORS & OTHER METRICS** | CITY | HIGHWAY |
| | CD 55/45 Fleet Utility Factor (FUF) for EAER [3] | #VALUE! | #VALUE! |
| | **FUEL COSTS: PROCESS FOR DERIVING A COMPOSITE CD/CS COST PER MILE** | CITY | HIGHWAY |
| | CD cost per mile - electricity ($/mi) [3] | $ - | $ - |
| | CD cost per mile - gasoline ($/mi) [3] | #VALUE! | #VALUE! |
| | CD total cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| | CS cost per mile ($/mi) [3] | #VALUE! | #VALUE! |
| | Composite CD/CS cost ($/mi) [3] | #VALUE! | #VALUE! |
| | **COMPOSITE CD/CS FUEL ECONOMY AND CO2 VALUES, ADJUSTED** | CITY | HIGHWAY |
| | Composite CD/CS CO2, adjusted (g/mi) [1] | 0.0 | 0.0 |
| | Composite CD/CS Fuel Economy, adjusted (MPG) [4] | 0 | 0 |

## DETAILED CALCULATIONS — UDDS — 0

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 City Fleet Utility Factor [3] | 55/45 City FUF x CREE | 55/45 City FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| No. | gal | grams | Amp-hours | W-hours | W-hours | mi | gal/mi equiv | gal/mi equiv | UF | UF | gal/mi equiv | gal-equiv | % | miles | miles | UF | g/mi | gal/mi equiv |
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| 43/57 City Fleet Utility Factor [3] | 43/57 City FUF x Adjusted Total Fuel Consumption Rate | 43/57 City 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 |
|---|---|---|---|---|---|---|
| *UF* | *gal/mi equiv* | *g/mi* | *CD or CS* | | *CD or CS* | |
| 0.198 | 0.002922993 | 0 | CD | 1.000 | CD | 1.000 |
| 0.159 | 0.002268332 | 0 | CD | 1.000 | CD | 0.492 |
| 0.126 | 0.00178326 | 0 | CD | 1.000 | CD | 0.328 |
| 0.100 | 0.001403217 | 0 | CD | 1.000 | CD | 0.245 |
| 0.080 | 0.001119889 | 0 | CD | 1.000 | CD | 0.197 |
| 0.063 | 0.000880146 | 0 | CD | 1.000 | CD | 0.164 |
| 0.050 | 0.000697841 | 0 | CD | 1.000 | CD | 0.141 |
| 0.040 | 0.000555305 | 0 | CD | 1.000 | CD | 0.123 |
| 0.032 | 0.000445599 | 0 | CD | 1.000 | CD | 0.110 |
| 0.026 | 0.000366492 | 0 | CD | 1.000 | CD | 0.100 |
| 0.021 | 0.000291762 | 0 | CD | 1.000 | CD | 0.090 |
| 0.017 | 0.000332056 | 1.238571429 | CD | -5.512 | CD | 0.068 |
| 0.014 | 0.000446263 | 3.931510315 | CD | -0.793 | CS based on 2% ba | 0.001 |
| | | | | 1.000 | | 1.000 |
| | | | | 1.000 | | 1.000 |
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**DETAILED CALCULATIONS | HFET | SUSTAIN**

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 Highway Fleet Utility Factor [3] | 55/45 Highway FUF x CREE | 55/45 Highway FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption | 43/57 Highway Fleet Utility Factor [3] | FUF x Adjusted Total Fuel Consumption Rate | 43/57 Highway 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *No.* | *gal* | *grams* | *Amp-hours* | *W-hours* | *W-hours* | *mi* | *gal/mi equiv* | *gal/mi equiv* | *UF* | *UF* | *gal/mi equiv* | *gal-equiv* | *%* | *miles* | *miles* | *UF* | *g/mi* | *gal-equiv* | *UF* | *gal-equiv* | *g/mi* | *CD or CS* | | *CD or CS* | |
| 1 | 0.0000 | 0.0000 | -7.847 | -3091.7000 | 3723.4000 | 10.30 | 0.01069412 | 0.0107 | 0.123 | 0.0000 | 0.0013 | 0.1105 | 0.7000 | 7.231 | 7.21 | 0.2060000 | 0 | 0.003147127 | 0.0970 | 0.001481899 | 0 | CD | 1.000 | CD | 1.000 |
| 2 | 0.0000 | 0.0000 | -7.682 | -2949.9000 | 3552.6000 | 20.60 | 0.010203558 | 0.0102 | 0.117 | 0.0000 | 0.0012 | 0.1054 | 0.7000 | 7.231 | 14.42 | 0.1560000 | 0 | 0.002273936 | 0.0940 | 0.001370192 | 0 | CD | 1.000 | CD | 0.488 |
| 3 | 0.0000 | 0.0000 | -7.724 | -2888.8000 | 3479.1000 | 30.90 | 0.010002139 | 0.0100 | 0.105 | 0.0000 | 0.0011 | 0.1032 | 0.7000 | 7.224 | 21.63 | 0.1190000 | 0 | 0.001700364 | 0.0870 | 0.001243123 | 0 | CD | 1.000 | CD | 0.323 |
| 4 | 0.0000 | 0.0000 | -7.771 | -2844.2000 | 3425.3000 | 41.20 | 0.009924402 | 0.0099 | 0.092 | 0.0000 | 0.0009 | 0.1016 | 0.7000 | 7.168 | 28.84 | 0.0920000 | 0 | 0.00130435 | 0.0800 | 0.001134217 | 0 | CD | 1.000 | CD | 0.242 |
| 5 | 0.0000 | 0.0000 | -8.044 | -2895.8000 | 3487.5000 | 51.50 | 0.010016582 | 0.0100 | 0.079 | 0.0000 | 0.0008 | 0.1035 | 0.7000 | 7.231 | 36.05 | 0.0720000 | 0 | 0.001030277 | 0.0720 | 0.001030277 | 0 | CD | 1.000 | CD | 0.197 |
| 6 | 0.0000 | 0.0000 | -8.237 | -2932.4000 | 3531.6000 | 61.80 | 0.010143244 | 0.0101 | 0.067 | 0.0000 | 0.0007 | 0.1048 | 0.7000 | 7.231 | 43.26 | 0.0560000 | 0 | 0.000811459 | 0.0640 | 0.000927382 | 0 | CD | 1.000 | CD | 0.167 |
| 7 | 0.0000 | 0.0000 | -8.239 | -2900.1000 | 3492.7000 | 72.10 | 0.010050002 | 0.0101 | 0.056 | 0.0000 | 0.0006 | 0.1036 | 0.7000 | 7.218 | 50.47 | 0.0450000 | 0 | 0.000646072 | 0.0560 | 0.000804 | 0 | CD | 1.000 | CD | 0.141 |
| 8 | 0.0000 | 0.0000 | -8.356 | -2891.2000 | 3481.9000 | 82.40 | 0.010019898 | 0.0100 | 0.047 | 0.0000 | 0.0005 | 0.1033 | 0.7000 | 7.217 | 57.68 | 0.0360000 | 0 | 0.000515309 | 0.0490 | 0.000701393 | 0 | CD | 1.000 | CD | 0.124 |
| 9 | 0.1846 | 1627.0000 | -2.935 | -1012.6000 | 1219.5000 | 92.70 | 0.003512774 | 0.0214 | 0.039 | 6.2010 | 0.0008 | 0.2208 | 0.7000 | 7.210 | 64.89 | 0.0290000 | 6.545714286 | 0.000887977 | 0.0420 | 0.001286035 | 9.54 | CD | -1.574 | CD | 0.041 |
| 10 | 0.2751 | 2435.0000 | 0.011 | 3.8000 | -4.6000 | 103.00 | -1.3228E-05 | 0.0267 | 0.033 | 7.7880 | 0.0009 | 0.2750 | 0.7071 | 7.295 | 72.17 | 0.0240000 | 8.010152786 | 0.000904653 | 0.0370 | 0.001394673 | 12.34898555 | CD | -0.441 | CS based on 2% | 0.000 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 34 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 35 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |

| 43/57 City Fleet Utility Factor [3] | 43/57 City FUF x Adjusted Total Fuel Consumption Rate | 43/57 City 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 |
|---|---|---|---|---|---|---|
| *UF* | *gal/mi equiv* | *g/mi* | *CD or CS* | | *CD or CS* | |
| | | | | 1.000 | | 1.000 |
| | | | | 1.000 | | 1.000 |
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**DETAILED CALCULATIONS | HFET | 0**

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 Highway Fleet Utility Factor [3] | 55/45 Highway FUF x CREE | 55/45 Highway FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption | 43/57 Highway Fleet Utility Factor [3] | FUF x Adjusted Total Fuel Consumption Rate | 43/57 Highway 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *No.* | *gal* | *grams* | *Amp-hours* | *W-hours* | *W-hours* | *mi* | *gal/mi equiv* | *gal/mi equiv* | *UF* | *UF* | *gal/mi equiv* | *gal-equiv* | *%* | *miles* | *miles* | *UF* | *g/mi* | *gal-equiv* | *UF* | *gal-equiv* | *g/mi* | *CD or CS* | | *CD or CS* | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 12 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 16 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 17 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 18 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 19 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 21 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 22 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 23 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 24 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 25 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
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| 27 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 28 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 29 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 30 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 31 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 32 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 33 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 34 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 35 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |

| 43/57 City Fleet Utility Factor [3] | 43/57 City FUF x Adjusted Total Fuel Consumption Rate | 43/57 City 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 |
|---|---|---|---|---|---|---|
| *UF* | *gal/mi 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 |
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| | | | | 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 |

**DETAILED CALCULATIONS | HFET | 0**

| Cycle No. | Gasoline Consumed | CO2 [0] | Net Amp-Hours Used Per Cycle [3] | DC Electricity Consumed [1] | AC Electricity Consumed [1] | Theoretical Cumulative Cycle Distance | Electric Only Fuel Consumption Rate | Total Fuel Consumption Rate (gas + electric) | 55/45 Highway Fleet Utility Factor [3] | 55/45 Highway FUF x CREE | 55/45 Highway FUF x Total Consumption | Total Fuel Consumption (gas + electric) | 5-Cycle Adjustment | Adjusted Cycle Measured Distance | Adjusted Cycle Theoretical Cumulative Distance | MDIUF [3] | MDIUF x Adjusted CO2 | MDIUF x Adjusted Total Fuel Consumption | 43/57 Highway Fleet Utility Factor [3] | FUF x Adjusted Total Fuel Consumption Rate | 43/57 Highway 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 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| *No.* | *gal* | *grams* | *Amp-hours* | *W-hours* | *W-hours* | *mi* | *gal/mi equiv* | *gal/mi equiv* | *UF* | *UF* | *gal/mi equiv* | *gal-equiv* | *%* | *miles* | *miles* | *UF* | *g/mi* | *gal-equiv* | *UF* | *gal-equiv* | *g/mi* | *CD or CS* | | *CD or CS* | |
| 1 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 2 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 3 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 4 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 5 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 6 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 7 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 8 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 9 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 10 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 11 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 12 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 13 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 14 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 15 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 16 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 17 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 18 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 19 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 20 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 21 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 22 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 23 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 24 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 25 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 26 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 27 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 28 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 29 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 30 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 31 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 32 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 33 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 34 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |
| 35 | | | | | | | | | | | | | | | | | | | | | | | 1.000 | | 1.000 |