



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
NATIONAL VEHICLE AND FUEL EMISSIONS LABORATORY
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ANN ARBOR, MICHIGAN 48105-2498

OFFICE OF
AIR AND RADIATION

October 17, 2022

CD-2022-15 (LDV, LDT)

SUBJECT: Instructions for Inputting Test Information for Battery Electric Light-Duty Vehicles and Trucks into the Engines and Vehicles Compliance Information System (EV-CIS)

Dear Manufacturer:

The purpose of this letter is to provide instructions for inputting test information for Battery Electric Vehicles (BEV) into EV-CIS. The results of chassis dynamometer testing of BEVs result in different output data than EV-CIS can accommodate. However, the regulations in 40 CFR Parts 86 and 600 still require that all test data be presented to the EPA so that the EPA can determine if this data is acceptable, and if it is deemed acceptable, so that it can be posted publicly. To accomplish these goals, it currently is necessary for the manufacturer to manually enter the DC energy consumption per mile (Wh/mi) for all applicable phases of the test(s) in the test comments section (see Enclosure 1 for an example). Additionally, the manufacturer must also enter the DC discharge energy (Wh) consumed in UDDS_1 of the MCT, as well as the total DC discharge energy (Wh) consumed for the entire MCT, also called the usable battery energy, in order to correctly determine the weighting factor.

If the manufacturer has contacted the EPA and requested to use the five-cycle methodology for determining the label five-cycle adjustment factor, and the EPA has approved this, the manufacturer must also input all five-cycle tests into EV-CIS. Each five-cycle test must also include the CD energy consumption per mile for all applicable phases of each test in the comments section of that test.

Currently, if the EPA confirms a BEV charge depleting test(s), the manufacturer is responsible for inputting the EPA data into EV-CIS. The manufacturer will be responsible for reporting the phase specific DC energy consumption per mile, as well as the AC charging energy, into these test results as well.

If you have questions about these instructions, please contact your assigned certification engineer.

Sincerely,

A handwritten signature in black ink, appearing to read "Byron Bunker", written over a light gray circular background.

Byron Bunker, Director
Compliance Division
Office of Transportation and Air Quality

Enclosure

Enclosure to CD-2022-15
Examples of Proper BEV Test Data Information

Example 1 – Charge Depleting (CD) Highway Data From an MCT – Enter Under Test Procedure “84 - Charge Depleting Highway”

Manufacturer Test Comments

DC energy consumption HWFE1 = 261.0 Wh/mi; HWFE2 = 259.0 Wh/mi; HWFE average = 260.0 Wh/mi

Example 2 – Charge Depleting (CD) UDDS Data From an MCT – Enter Under Test Procedure “81 – Charge Depleting UDDS”

Manufacturer Test Comments

DC energy consumption UDDS1 = 260.0 Wh/mi; UDDS2 = 250.0 Wh/mi; UDDS3 = 240.0 Wh/mi; UDDS4 = 250.0 Wh/mi; UDDS weighted = 246.9 Wh/mi; UDDS1 DC discharge energy = 902.2 Wh; MCT UBE energy = 113,672 Wh

Example 3 – FTP Data (For Approved Five Cycle Adjustment Factor Testing Only) – Enter Under Test Procedure “2 – CVS 75 and later (w/o can. Load)”

Manufacturer Test Comments

DC energy consumption Phase 1 = 260.0 Wh/mi; Phase 2 = 250.0 Wh/mi; Phase 3 = 240.0 Wh/mi;

Example 4 – Highway Cycle Data (For Approved Five Cycle Adjustment Factor Testing Only) – Enter Under Test Procedure “3 - HWFE”

Manufacturer Test Comments

DC energy consumption = 275.0 Wh/mi;

Example 5 – US06 Data (For Approved Five Cycle Adjustment Factor Testing Only) – Enter Under Test Procedure “90 – US06”

Manufacturer Test Comments

DC energy consumption Phase 1 (Highway) = 320.0 Wh/mi; Phase 2 (City) = 270.0 Wh/mi

Example 6 – SC03 Data (For Approved Five Cycle Adjustment Factor Testing Only) – Enter Under Test Procedure “95 – SC03”

Manufacturer Test Comments

DC energy consumption = 210.0 Wh/mi

Example 7 – Cold FTP Data (For Approved Five Cycle Adjustment Factor Testing Only) – Enter Under Test Procedure “86 – Charge Depleting 20 Degree F FTP”

Manufacturer Test Comments

DC energy consumption Phase 1 = 360.0 Wh/mi; Phase 3 = 350.0 Wh/mi; Total charge depleting energy consumption = 275.0 Wh/mi