

PHEV Accelerated Testing - Description Advanced Vehicle Testing Activity

Plug-in Hybrid Electric Vehicle (PHEV) accelerated testing uses dedicated drivers to operate test vehicles over predetermined and repeatable drive cycles, which include combinations of urban and highway loops (see Table below). The accelerated testing accumulates 5,440 total miles per PHEV model. The test vehicles are recharged after each of the 162 drive cycles listed below, for a minimum of 1,344 total hours. The test vehicles are fueled with gasoline at the beginning and end of each 600-mile test cycle. Total test miles may be slightly greater than the 600-mile cycles and the miles per gallon results are based on actual miles driven. This testing provides a broad view of fuel use over nine types of driving styles and distances, and charging events.

| Cycle (mi) | Urban (10 mi) | Highway (10 mi) | Charge (hr) | Reps (N) | Total (mi) | Reps (%) | Miles (%) |
|------------|---------------|-----------------|-------------|----------|------------|----------|-----------|
| 10 | 1 | 0 | 4 | 60 | 600 | 37% | 11% |
| 20 | 1 | 1 | 8 | 30 | 600 | 19% | 11% |
| 40 | 4 | 0 | 12 | 15 | 600 | 9% | 11% |
| 40 | 2 | 2 | 12 | 15 | 600 | 9% | 11% |
| 40 | 0 | 4 | 12 | 15 | 600 | 9% | 11% |
| 60 | 2 | 4 | 12 | 10 | 600 | 6% | 11% |
| 80 | 2 | 6 | 12 | 8 | 640 | 5% | 12% |
| 100 | 2 | 8 | 12 | 6 | 600 | 4% | 11% |
| 200 | 2 | 18 | 12 | 3 | 600 | 2% | 11% |
| Total | 2,340 | 3,100 | 1,344 | 162 | 5,440 | - | - |
| Average | 43% | 57% | 8.3 | 18 | - | - | - |

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Energy efficiency and clean, renewable energy will mean a stronger economy, a cleaner environment, and greater energy independence for America. Working with a wide array of state, community, industry, and university partners, the U.S. Department of Energy's Office of Energy Efficiency and Renewable Energy invests in a diverse portfolio of energy technologies.

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