

VEHICLE TECHNOLOGIES PROGRAM

PHEV Accelerated Testing Results – Feb. 2009 Advanced Vehicle Testing Activity



2007 Electrovaya Escape

VIN #
1FMYU59H37KA77842

A Strong Energy Portfolio for a Strong America

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.

Accelerated testing was completed in January 2009 and the final results can be found in the table to the right. The Electrovaya Escape averaged 36.7 mpg over the 5,570 miles of testing (5,440-mile goal). Based on an electricity cost of 10 cents per kWh and a gasoline cost of \$3.00 per gallon, the fuel cost was 0.996 cents per mile for electricity and 8.17 cents per mile for gasoline, for a total fuel cost of 9.17 cents per mile for the Electrovaya Escape PHEV. The base Ford Escape HEVs tested by the AVTA averaged 27 mpg, so the conventional HEV Ford Escape fuel cost would average 11.11 cents per mile.

If the Electrovaya Escape PHEV were operated for 100,000 miles at 36.7 mpg, it would use 2,725 gallons of gasoline while the HEV Escape would use 3,704 gallons of gasoline over 100,000 miles at 27 mpg – 36% more gasoline than the Electrovaya Escape PHEV.

This testing did document 65 mpg testing results when the Electrovaya Escape PHEV is driven in the 10-mile urban application test loops, so depending how this vehicle is operated, actual petroleum savings can be much greater.

Electrovaya Escape – Accelerated Testing

Cycle (mi)	Urban (10 mi)	Highway (10 mi)	Charge (hr)	Reps (N)	Total (mi)	Electricity		Gasoline	
						AC kWh	Gals	MPG	
10	1	0	4	60	600	135.24	9.55	65.1	
20	1	1	8	30	600	101.13	17.54	34.7	
40	4	0	12	15	600	71.3	16.42	37.3	
40	2	2	12	15	600	69.8	14.34	43.1	
40	0	4	12	15	600	55.84	20.73	29.8	
60	2	4	12	10	600	44.79	16.64	37.3	
80	2	6	12	8	640	42.72	16.30	40.8	
100	2	8	12	6	600	20.85	21.17	29.2	
200	2	18	12	3	600	13.31	19.01	30.9	
Total	2340	3100	1344	162	5440	Weighted Average		36.7	

Each total distance slightly greater than 600 miles. HEV version = 27 mpg



For more information contact:
EERE Information Center
1-877-EERE-INF (1-877-337-3463)
www.eere.energy.gov
Or <http://avt.inl.gov>



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