

## VEHICLE TECHNOLOGIES PROGRAM

# SCAQMD Quantum Escape PHEV Report

Number of vehicles: 17 Date range of data received: 06/01/2012 to 06/30/2012

Reporting period: June 2012 Number of vehicle days driven: 200

#### All Trips Combined

| Overall gasoline fuel economy (mpg)                              | 35    |
|--|-------|
| Overall AC electrical energy consumption (AC Wh/mi) <sup>1</sup> | 78    |
| Overall DC electrical energy consumption (DC Wh/mi) <sup>2</sup> | 37    |
| Total number of trips  | 1,084 |
| Total distance traveled (mi)                                     | 9,876 |

#### Trips in Charge Depleting (CD) mode<sup>3</sup>

| Gasoline fuel economy (mpg)                              | 37        |
|--|-----------|
| DC electrical energy consumption (DC Wh/mi) <sup>4</sup> | 59        |
| Number of trips  | 586       |
| Percent of trips city   highway                          | 77%   23% |
| Distance traveled (mi)                                   | 3,782     |
| Percent of total distance traveled                       | 38%       |

#### Trips in both Charge Depleting & Charge Sustaining (CD/CS) modes<sup>5</sup>

| Gasoline fuel economy (mpg)                              | 39        |
|--|-----------|
| DC electrical energy consumption (DC Wh/mi) <sup>6</sup> | 59        |
| Number of trips  | 71        |
| Percent of trips city   highway                          | 38%   62% |
| Distance traveled (mi)                                   | 1,920     |
| Percent of total distance traveled                       | 19%       |

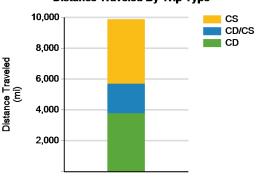
### Trips in Charge Sustaining (CS) mode7

| Gasoline fuel economy (mpg)        | 32        |
|------------------------------------|-----------|
| Number of trips                    | 427       |
| Percent of trips city   highway    | 76%   24% |
| Distance traveled (mi)             | 4,174     |
| Percent of total distance traveled | 42%       |

#### **All Vehicles**

# **Gasoline Fuel Economy By Trip Type** CD CD/CS Fuel Economy (mpg) 30 CS 10

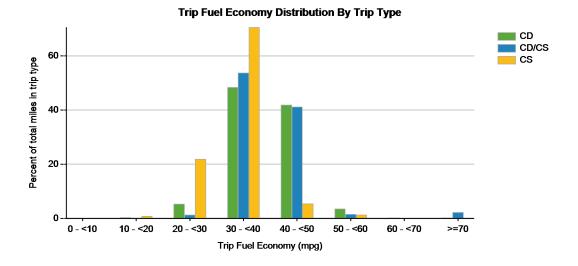
## **Distance Traveled By Trip Type**



Notes: 1 - 8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.



| Trips in Charge Depleting (CD) mode                          | City | Highway |
|--|------|---------|
| Gasoline fuel economy (mpg)                                  | 33   | 39      |
| DC electrical energy consumption (DC Wh/mi)                  | 58   | 60      |
| Percent of miles with internal combustion engine off         | 5%   | 1%      |
| Average trip driving intensity <sup>8</sup>                  | 5    | 3       |
| Average trip distance (mi)                                   | 2.5  | 19.9    |
| Trips in Charge Depleting and Charge Sustaining (CD/CS) mode |      |         |
| Gasoline fuel economy (mpg)                                  | 43   | 39      |
| DC electrical energy consumption (DC Wh/mi)                  | 86   | 55      |
| Percent of miles with internal combustion engine off         | 9%   | 1%      |
| Average trip driving intensity <sup>8</sup>                  | 4    | 2       |
| Average trip distance (mi)                                   | 9.3  | 37.9    |
| Trips in Charge Sustaining (CS) mode                         |      |         |
| Gasoline fuel economy (mpg)                                  | 30   | 33      |
| Percent of miles with internal combustion engine off         | 3%   | 1%      |
| Average trip driving intensity <sup>8</sup>                  | 5    | 2       |
| Average trip distance (mi)                                   | 3.2  | 31.1    |

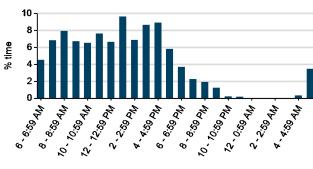




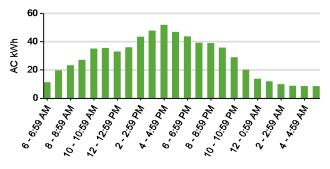
#### Plug-in charging

| Average number of charging events per vehicle per month when driven | 9    |  |
|---|------|--|
| Average number of charging events per vehicle per day when driven   | 0.7  |  |
| Average distance driven between charging events (mi)                | 67.2 |  |
| Average number of trips between charging events                     | 7.4  |  |
| Average time plugged in per charging event (hr)                     | 36.1 |  |
| Average time plugged in and drawing power (hr)                      | 36.1 |  |
| Average time charging per charging event (power > 200 w) (hr)       | 5.4  |  |
| Average energy per charging event (AC kWh)                          | 5.3  |  |
| Average charging energy per vehicle per month (AC kWh)              | 45.5 |  |
| Total number of charging events                                     | 147  |  |
| Total charging energy (AC kWh)                                      | 774  |  |





#### **Time of Day When Charging**



#### Time of Day When Plugging In

