## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 17
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven: 186

All Trips Combined

| Overall gasoline fuel economy (mpg) | 36 |
| :---: | :---: |
| Overall $A C$ electrical energy consumption (AC Wh/mi) ${ }^{1}$ | 36 |
| Overall DC electrical energy consumption ( $\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 18 |
| Total number of trips | 1,290 |
| Total distance traveled (mi) | 13,023 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 58 |
| Percent of trips city \| highway | 432 |
| Distance traveled (mi) | $75 \% \mid 25 \%$ |
| Percent of total distance traveled | 2,835 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 41 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 48 |
| Number of trips | 52 |
| Percent of trips city \| highway | $31 \% \mid 69 \%$ |
| Distance traveled (mi) | 1,613 |
| Percent of total distance traveled | $12 \%$ |
|  |  |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 34 |
| Number of trips | 806 |
| Percent of trips city \| highway | $73 \% \mid 27 \%$ |
| Distance traveled (mi) | 8,575 |
| Percent of total distance traveled | $66 \%$ |

## All Vehicles

11/01/2012 to 11/30/2012

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^0]|  |  |  |
| :--- | ---: | :--- |
| City Highway |  |  |
| Trips in Charge Depleting (CD) mode | 37 | 41 |
| Gasoline fuel economy (mpg) | 65 | 53 |
| DC electrical energy consumption (DC Wh/mi) | $2 \%$ | $2 \%$ |
| Percent of miles with internal combustion engine off | 4 | 3 |
| Average trip driving intensity ${ }^{8}$ | 3.5 | 15.6 |
| Average trip distance (mi) |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 47 | 40 |
| :--- | ---: | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 74 | 44 |
| Percent of miles with internal combustion engine off | $1 \%$ | $3 \%$ |
| Average trip driving intensity ${ }^{8}$ | 3 | 2 |
| Average trip distance (mi) | 11.5 | 39.7 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 32 | 35 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $3 \%$ | $3 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 2 |
| Average trip distance (mi) | 3.7 | 29.2 |

Trip Fuel Economy Distribution By Trip Type


Plug-in charging

| Average number of charging events per vehicle per month when driven | 6 |
| :--- | :---: |
| Average number of charging events per vehicle per day when driven | 0.6 |
| Average distance driven between charging events (mi) | 118.4 |
| Average number of trips between charging events | 11.7 |
| Average time plugged in per charging event (hr) | 36.5 |
| Average time plugged in and drawing power (hr) | 36.5 |
| Average time charging per charging event (power > 200 w) (hr) | 5.0 |
| Average energy per charging event (AC kWh) | 4.3 |
| Average charging energy per vehicle per month (AC kWh) | 27.5 |
| Total number of charging events | 110 |
| Total charging energy (AC kWh) | 468 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven: 16

All Trips Combined


[^1]|  |  |  |
| :--- | ---: | ---: |
| City |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

|  | 54 | 41 |  |
| :--- | ---: | ---: | :--- |
| Gasoline fuel economy (mpg) | 18 | 9 |  |
| DC electrical energy consumption (DC Wh/mi) | $43 \%$ | $8 \%$ |  |
| Percent of miles with internal combustion engine off | 4 | 2 |  |
| Average trip driving intensity ${ }^{8}$ | 2.1 | 49.2 |  |
| Average trip distance (mi) |  |  |  |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 36 | 36 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $29 \%$ | $6 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 2 |
| Average trip distance (mi) | 2.3 | 45.7 |

Trip Fuel Economy Distribution By Trip Type


Plug-in charging

| Average number of charging events per vehicle per month when driven | 0 |
| :--- | :--- |
| Average number of charging events per vehicle per day when driven | 0.0 |
| Average distance driven between charging events (mi) | 0.0 |
| Average number of trips between charging events | 0.0 |
| Average time plugged in per charging event (hr) | 0.0 |
| Average time plugged in and drawing power (hr) | 0.0 |
| Average time charging per charging event (power > 200 w$)(\mathrm{hr})$ | 0.0 |
| Average energy per charging event (AC kWh) | 0.0 |
| Average charging energy per vehicle per month (AC kWh) | 0.0 |
| Total number of charging events | 0 |
| Total charging energy (AC kWh) | 0 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#25
11/06/2012 to 11/29/2012
12

All Trips Combined

| Overall gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| ${\text { Overall AC electrical energy consumption }(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}}^{1}$ | 82 |
| Overall DC electrical energy consumption (DC Wh/mi) |  |
| Total number of trips | 38 |
| Total distance traveled (mi) | 81 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 53 |
| Percent of trips city \| highway | 44 |
| Distance traveled (mi) | $73 \%$ |
| Percent of total distance traveled | $27 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 46 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 66 |
| Percent of trips city \| highway | 5 |
| Distance traveled (mi) | $100 \%$ |
| Percent of total distance traveled | 145 |
|  | $20 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{\mathbf{7}}$ |  |
| Gasoline fuel economy (mpg) | 36 |
| Number of trips | 32 |
| Percent of trips city \| highway | $81 \%$ |
| Distance traveled (mi) | $19 \%$ |
| Percent of total distance traveled | 292 |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^2]Trips in Charge Depleting (CD) mode
City Highway

| Gasoline fuel economy (mpg) | 39 | 40 |
| :--- | ---: | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 49 | 58 |
| Percent of miles with internal combustion engine off | $13 \%$ | $6 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 4.7 | 12.0 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 0 | 46 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 0 | 66 |
| Percent of miles with internal combustion engine off | $0 \%$ | $7 \%$ |
| Average trip driving intensity ${ }^{8}$ | 0.0 | 29.0 |
| Average trip distance (mi) |  | 2 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 35 | 37 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $20 \%$ | $9 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 3.6 | 33.2 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 13 |
| Average number of charging events per vehicle per month when driven | 1.1 |
| Average number of charging events per vehicle per day when driven | 56.3 |
| Average distance driven between charging events (mi) | 6.2 |
| Average number of trips between charging events | 35.0 |
| Average time plugged in per charging event (hr) | 35.0 |
| Average time plugged in and drawing power (hr) | 6.1 |
| Average time charging per charging event (power > 200 w) (hr) | 4.6 |
| Average energy per charging event (AC kWh) | 60.2 |
| Average charging energy per vehicle per month (AC kWh) | 13 |
| Total number of charging events | 60 |
| Total charging energy (AC kWh) |  |

Time of Day When Driving


Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#24
11/01/2012 to 11/30/201211

All Trips Combined

| Overall gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| Overall AC electrical energy consumption (AC Wh/mi) ${ }^{1}$ | 73 |
| Overall DC electrical energy consumption (DC Wh/mi) |  |
| Total number of trips | 53 |
| Total distance traveled (mi) | 65 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) | 4 |
| Number of trips | 58 |
| Percent of trips city \| highway | 52 |
| Distance traveled (mi) | $42 \%$ |
| Percent of total distance traveled | 363 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 57 |
| Number of trips | 5 |
| Percent of trips city \| highway | $60 \%$ |
| Distance traveled (mi) | $40 \%$ |
| Percent of total distance traveled | 97 |
|  | $18 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 39 |
| Number of trips | 8 |
| Percent of trips city \| highway | $75 \% \mid 25 \%$ |
| Distance traveled (mi) | 80 |
| Percent of total distance traveled | $15 \%$ |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^3]Trips in Charge Depleting (CD) mode
City Highway

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) | 73 |
| Percent of miles with internal combustion engine off | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 31 |
| Average trip distance (mi) | 3.6 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 43 | 38 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 58 | 56 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 2 | 2 |
| Average trip distance (mi) | 15.2 | 25.5 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 40 | 39 |
| :--- | ---: | ---: | ---: |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 3 | 3 |
| Average trip distance (mi) | 5.5 | 23.6 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 18 |
| Average number of charging events per vehicle per month when driven | 1.6 |
| Average number of charging events per vehicle per day when driven | 30.0 |
| Average distance driven between charging events (mi) | 3.6 |
| Average number of trips between charging events | 4.9 |
| Average time plugged in per charging event (hr) | 4.9 |
| Average time plugged in and drawing power (hr) | 3.4 |
| Average time charging per charging event (power >200 w) (hr) | 2.2 |
| Average energy per charging event (AC kWh) | 39.3 |
| Average charging energy per vehicle per month (AC kWh$)$ | 18 |
| Total number of charging events | 39 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#23
11/01/2012 to 11/30/2012
11

All Trips Combined

| Overall gasoline fuel economy (mpg) | 37 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 34 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 19 |
| Total number of trips | 104 |
| Total distance traveled (mi) | 1,325 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 60 |
| Percent of trips city \| highway | 25 |
| Distance traveled (mi) | $68 \%$ |
| Percent of total distance traveled | 230 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 46 |
| Number of trips | 5 |
| Percent of trips city \| highway | $20 \%$ |
| Distance traveled (mi) | $80 \%$ |
| Percent of total distance traveled | 212 |
|  | $16 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 35 |
| Number of trips | 74 |
| Percent of trips city \| highway | $78 \%$ |
| Distance traveled (mi) | $22 \%$ |
| Percent of total distance traveled | 882 |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^4]Trips in Charge Depleting (CD) mode
City Highway

| Gasoline fuel economy (mpg) | 29 | 42 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 87 | 57 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 5 | 3 |
| Average trip distance (mi) | 1.4 | 25.9 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 43 | 39 |
| :--- | ---: | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 50 | 45 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 3 | 2 |
| Average trip distance (mi) | 21.8 | 47.6 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 33 | 36 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 3 | 2 |
| Average trip distance (mi) | 3.5 | 42.4 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 6 |
| Average number of charging events per vehicle per month when driven | 0.5 |
| Average number of charging events per vehicle per day when driven | 220.8 |
| Average distance driven between charging events (mi) | 17.3 |
| Average number of trips between charging events | 77.5 |
| Average time plugged in per charging event (hr) | 77.5 |
| Average time plugged in and drawing power (hr) | 4.2 |
| Average time charging per charging event (power > 200 w) (hr) | 7.6 |
| Average energy per charging event (AC kWh) | 45.6 |
| Average charging energy per vehicle per month (AC kWh) | 6 |
| Total number of charging events | 46 |
| Total charging energy (AC kWh) |  |

Time of Day When Driving


Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#22
11/07/2012 to 11/30/2012
5

All Trips Combined

| Overall gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 133 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 54 |
| Total number of trips | 25 |
| Total distance traveled (mi) | 300 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 42 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{4}$ | 58 |
| Number of trips | 19 |
| Percent of trips city \| highway | $63 \% \mid 37 \%$ |
| Distance traveled (mi) | 183 |
| Percent of total distance traveled | $61 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 51 |
| Percent of trips city \| highway | 4 |
| Distance traveled (mi) | $50 \%$ |
| Percent of total distance traveled | 93 |
|  | $31 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{\mathbf{7}}$ |  |
| Gasoline fuel economy (mpg) | 35 |
| Number of trips | 2 |
| Percent of trips city \| highway | $100 \% \mid 0 \%$ |
| Distance traveled (mi) | 24 |
| Percent of total distance traveled | $8 \%$ |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^5]| Trips in Charge Depleting (CD) mode | City | Highway |
| :---: | :---: | :---: |
| Gasoline fuel economy (mpg) | 39 | 47 |
| DC electrical energy consumption ( $\mathrm{DC} \mathrm{Wh} / \mathrm{mi}$ ) | 53 | 64 |
| Percent of miles with internal combustion engine off | 0\% | 0\% |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 7.7 | 13.0 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 43 | 38 |
| :--- | ---: | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 72 | 48 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 5 | 2 |
| Average trip distance (mi) | 5.0 | 41.5 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 35 | 0 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 5 |  |
| Average trip distance (mi) | 12.0 | 0.0 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 5 |
| Average number of charging events per vehicle per month when driven | 1.0 |
| Average number of charging events per vehicle per day when driven | 60.1 |
| Average distance driven between charging events (mi) | 5.0 |
| Average number of trips between charging events | 101.6 |
| Average time plugged in per charging event (hr) | 101.6 |
| Average time plugged in and drawing power (hr) | 4.8 |
| Average time charging per charging event (power >200 w) (hr) | 8.0 |
| Average energy per charging event (AC kWh) | 40.1 |
| Average charging energy per vehicle per month (AC kWh$)$ | 5 |
| Total number of charging events | 40 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven: 10

All Trips Combined

| Overall gasoline fuel economy $(\mathrm{mpg})$ | 37 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 90 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 30 |
| Total number of trips | 36 |
| Total distance traveled $(\mathrm{mi})$ | 319 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 38 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 79 |
| Percent of trips city \| highway | 22 |
| Distance traveled (mi) | $86 \%$ |
| Percent of total distance traveled | $14 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 44 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 67 |
| Percent of trips city \| highway | 3 |
| Distance traveled (mi) | $33 \%$ |
| Percent of total distance traveled | $87 \%$ |
|  | $27 \%$ |
| Trips in Charge Sustaining (CS) mode7 |  |
| Gasoline fuel economy (mpg) | 33 |
| Number of trips | 11 |
| Percent of trips city \| highway | $64 \%$ |
| Distance traveled (mi) | $36 \%$ |
| Percent of total distance traveled | 109 |

Quantum SCAQMD \#21
11/01/2012 to 11/28/2012


[^6]|  |  |  |
| :--- | ---: | ---: |
| City |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 53 | 41 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 65 | 67 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 27.0 | 29.8 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 39 | 31 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 3.1 | 21.7 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 5 |
| Average number of charging events per vehicle per month when driven | 0.5 |
| Average number of charging events per vehicle per day when driven | 63.7 |
| Average distance driven between charging events (mi) | 7.2 |
| Average number of trips between charging events | 39.9 |
| Average time plugged in per charging event (hr) | 39.9 |
| Average time plugged in and drawing power (hr) | 12.8 |
| Average time charging per charging event (power >200 w) (hr) | 5.7 |
| Average energy per charging event (AC kWh) | 28.7 |
| Average charging energy per vehicle per month (AC kWh) | 5 |
| Total number of charging events | 29 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#20
11/02/2012 to 11/14/2012
3

All Trips Combined

| Overall gasoline fuel economy $(\mathrm{mpg})$ | 2 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 42,121 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 883 |
| Total number of trips | 6 |
| Total distance traveled $(\mathrm{mi})$ | 0 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 0 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 0 |
| Percent of trips city \| highway | 2 |
| Distance traveled (mi) | $00 \%$ |
| Percent of total distance traveled | $0 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 0 |
| :---: | :---: |
| DC electrical energy consumption ( $\mathrm{DC} \mathrm{Wh/mi)}{ }^{6}$ | 0 |
| Number of trips | 2 |
| Percent of trips city \| highway | 100\% \\| 0\% |
| Distance traveled (mi) | 0 |
| Percent of total distance traveled | 100\% |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 0 |
| Number of trips | 2 |
| Percent of trips city \| highway | 100\% \\| 0\% |
| Distance traveled (mi) | 0 |
| Percent of total distance traveled | 0\% |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^7]|  |  |  |
| :--- | :---: | :---: |
| City | Highway |  |
| Trips in Charge Depleting (CD) mode | 0 | 0 |
| Gasoline fuel economy (mpg) | 0 | 0 |
| DC electrical energy consumption (DC Wh/mi) | $0 \%$ | $0 \%$ |
| Percent of miles with internal combustion engine off |  |  |
| Average trip driving intensity ${ }^{8}$ | 0.0 | 0.0 |
| Average trip distance (mi) |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 0 | 0 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 0 | 0 |
| Percent of miles with internal combustion engine off | $103 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 1 |  |
| Average trip distance (mi) | 0.0 | 0.0 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 0 | 0 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ |  |  |
| Average trip distance (mi) | 0.0 | 0.0 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 3 |
| Average number of charging events per vehicle per month when driven | 1.0 |
| Average number of charging events per vehicle per day when driven | 0.0 |
| Average distance driven between charging events (mi) | 2.0 |
| Average number of trips between charging events | 0.8 |
| Average time plugged in per charging event (hr) | 0.8 |
| Average time plugged in and drawing power (hr) | 0.8 |
| Average time charging per charging event (power > 200 w$)$ (hr) | 0.8 |
| Average energy per charging event (AC kWh) | 2.4 |
| Average charging energy per vehicle per month (AC kWh) | 3 |
| Total number of charging events | 2 |
| Total charging energy (AC kWh) |  |

Time of Day When Driving


Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#18
11/01/2012 to 11/30/2012
9

All Trips Combined

| Overall gasoline fuel economy $(\mathrm{mpg})$ | 34 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 59 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 35 |
| Total number of trips | 52 |
| Total distance traveled (mi) | 384 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 72 |
| Percent of trips city \| highway | 6 |
| Distance traveled (mi) | $50 \%$ |
| Percent of total distance traveled | $80 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 47 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 80 |
| Number of trips | 2 |
| Percent of trips city \| highway | $50 \%$ |
| Distance traveled (mi) | $50 \%$ |
| Percent of total distance traveled | 88 |
|  | $23 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 29 |
| Number of trips | 44 |
| Percent of trips city \| highway | $89 \% \mid 11 \%$ |
| Distance traveled (mi) | 209 |
| Percent of total distance traveled | $55 \%$ |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^8]|  |  |  |
| :--- | ---: | :--- |
| City | Highway |  |
| Trips in Charge Depleting (CD) mode | 44 | 37 |
| Gasoline fuel economy (mpg) | 85 | 68 |
| DC electrical energy consumption (DC Wh/mi) | $0 \%$ | $0 \%$ |
| Percent of miles with internal combustion engine off | 3 | 2 |
| Average trip driving intensity 8 | 7.9 | 20.9 |
| Average trip distance (mi) |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 58 | 38 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 95 | 61 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 2 | 2 |
| Average trip distance (mi) | 49.7 | 38.7 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 25 | 36 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 3.3 | 16.1 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 4 |
| Average number of charging events per vehicle per month when driven | 0.4 |
| Average number of charging events per vehicle per day when driven | 96.0 |
| Average distance driven between charging events (mi) | 13.0 |
| Average number of trips between charging events | 32.9 |
| Average time plugged in per charging event (hr) | 32.9 |
| Average time plugged in and drawing power (hr) | 3.9 |
| Average time charging per charging event (power > 200 w) (hr) | 5.6 |
| Average energy per charging event (AC kWh) | 22.5 |
| Average charging energy per vehicle per month (AC kWh) | 4 |
| Total number of charging events | 23 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received: $\quad 11 / 01 / 2012$ to 11/29/2012
Number of vehicle days driven: 9

Quantum SCAQMD \#17

All Trips Combined

| Overall gasoline fuel economy $(\mathrm{mpg})$ | 35 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 64 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 18 |
| Total number of trips | 43 |
| Total distance traveled $(\mathrm{mi})$ | 328 |

Trips in Charge Depleting (CD) mode³

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{4}$ | 73 |
| Number of trips | 14 |
| Percent of trips city \| highway | $86 \%$ |
| Distance traveled (mi) | $14 \%$ |
| Percent of total distance traveled | 61 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 40 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 77 |
| Number of trips | 1 |
| Percent of trips city \| highway | $0 \%$ |
| Distance traveled (mi) | $100 \%$ |
| Percent of total distance traveled | 14 |
|  | $4 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 33 |
| Number of trips | 28 |
| Percent of trips city \| highway | $79 \% \mid 21 \%$ |
| Distance traveled (mi) | 253 |
| Percent of total distance traveled | $77 \%$ |



[^9]|  |  |  |
| :--- | ---: | ---: |
| City | Highway |  |
| Trips in Charge Depleting (CD) mode | 35 | 41 |
| Gasoline fuel economy (mpg) | 79 | 72 |
| DC electrical energy consumption (DC Wh/mi) | $0 \%$ | $0 \%$ |
| Percent of miles with internal combustion engine off | 4 | 3 |
| Average trip driving intensity ${ }^{8}$ | 1.0 | 24.1 |
| Average trip distance (mi) |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 0 | 40 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 0 | 77 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ |  | 3 |
| Average trip distance (mi) | 0.0 | 14.1 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 28 | 36 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 5 | 3 |
| Average trip distance (mi) | 2.9 | 31.5 |

Trip Fuel Economy Distribution By Trip Type


Plug-in charging

| Plug-in charging | 6 |
| :--- | ---: |
| Average number of charging events per vehicle per month when driven | 0.7 |
| Average number of charging events per vehicle per day when driven | 54.6 |
| Average number of trips between charging events | 7.2 |
| Average time plugged in per charging event (hr) | 65.4 |
| Average time plugged in and drawing power (hr) | 65.4 |
| Average time charging per charging event (power >200 w) (hr) | 5.3 |
| Average energy per charging event (AC kWh) | 3.5 |
| Average charging energy per vehicle per month (AC kWh) | 21.1 |
| Total number of charging events | 6 |
| Total charging energy (AC kWh) | 21 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#13
11/03/2012 to 11/30/2012
12

All Trips Combined

| Overall gasoline fuel economy (mpg) | 35 |
| :---: | :---: |
| Overall AC electrical energy consumption (AC Wh/mi) ${ }^{1}$ | 18 |
| Overall DC electrical energy consumption ( $\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 16 |
| Total number of trips | 100 |
| Total distance traveled (mi) | 1,274 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 60 |
| Percent of trips city \| highway | 10 |
| Distance traveled (mi) | $40 \%$ |
| Percent of total distance traveled | $150 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 59 |
| Number of trips | 3 |
| Percent of trips city \| highway | $0 \%$ |
| Distance traveled (mi) | $200 \%$ |
| Percent of total distance traveled | $17 \%$ |
|  |  |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 33 |
| Number of trips | 87 |
| Percent of trips city \| highway | $75 \% \mid 25 \%$ |
| Distance traveled (mi) | 897 |
| Percent of total distance traveled | $70 \%$ |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^10]|  |  |  |
| :--- | ---: | ---: |
| City | Highway |  |
| Trips in Charge Depleting (CD) mode | 32 | 40 |
| Gasoline fuel economy (mpg) | 34 | 64 |
| DC electrical energy consumption (DC Wh/mi) | $4 \%$ | $2 \%$ |
| Percent of miles with internal combustion engine off | 5 | 3 |
| Average trip driving intensity 8 | 4.7 | 22.9 |
| Average trip distance (mi) |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 0 | 39 |
| :--- | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 0 | 59 |
| Percent of miles with internal combustion engine off | $0 \%$ | $4 \%$ |
| Average trip driving intensity ${ }^{8}$ | 0.0 | 73.4 |
| Average trip distance (mi) |  | 2 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 29 | 35 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $6 \%$ | $2 \%$ |
| Average trip driving intensity ${ }^{8}$ | 3 | 2 |
| Average trip distance (mi) | 2.5 | 33.5 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 5 |
| Average number of charging events per vehicle per month when driven | 0.4 |
| Average number of charging events per vehicle per day when driven | 254.8 |
| Average distance driven between charging events (mi) | 20.0 |
| Average number of trips between charging events | 21.1 |
| Average time plugged in per charging event (hr) | 21.1 |
| Average time plugged in and drawing power (hr) | 7.6 |
| Average time charging per charging event (power >200 w) (hr) | 4.7 |
| Average energy per charging event (AC kWh) | 23.6 |
| Average charging energy per vehicle per month (AC kWh) | 5 |
| Total number of charging events | 24 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven: 18

All Trips Combined

| Overall gasoline fuel economy (mpg) | 34 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 8 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 6 |
| Total number of trips | 154 |
| Total distance traveled (mi) | 1,218 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 30 |
| :--- | ---: |
| DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{4}$ | 49 |
| Number of trips | 5 |
| Percent of trips city \| highway | $40 \%$ |
| Distance traveled (mi) | $60 \%$ |
| Percent of total distance traveled | 10 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 47 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 48 |
| Percent of trips city \| highway | 4 |
| Distance traveled (mi) | $25 \% \mid 75 \%$ |
| Percent of total distance traveled | 55 |
|  | $5 \%$ |
| Trips in Charge Sustaining (CS) mode7 |  |
| Gasoline fuel economy (mpg) | 34 |
| Number of trips | 145 |
| Percent of trips city \| highway | $77 \% \mid 23 \%$ |
| Distance traveled (mi) | 1,153 |
| Percent of total distance traveled | $95 \%$ |

Quantum SCAQMD \#11
11/01/2012 to 11/30/2012


[^11]|  |  |  |
| :--- | ---: | ---: |
| Trips in Charge Depleting (CD) mode | City |  |
| Gasoline fuel economy (mpg) | 26 | 35 |
| DC electrical energy consumption (DC Wh/mi) | 62 | 35 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 6 | 3 |
| Average trip distance (mi) | 2.5 | 1.7 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 29 | 48 |
| :--- | ---: | ---: |
| DC electrical energy consumption (DC Wh/mi) | 6 | 51 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 5 | 3 |
| Average trip distance (mi) | 2.7 | 17.4 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 31 | 37 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 4.8 | 18.3 |

Trip Fuel Economy Distribution By Trip Type


Plug-in charging

| Average number of charging events per vehicle per month when driven | 5 |
| :--- | ---: |
| Average number of charging events per vehicle per day when driven | 0.3 |
| Average distance driven between charging events (mi) | 243.6 |
| Average number of trips between charging events | 30.8 |
| Average time plugged in per charging event (hr) | 1.9 |
| Average time plugged in and drawing power (hr) | 1.9 |
| Average time charging per charging event (power > 200 w) (hr) | 1.9 |
| Average energy per charging event (AC kWh) | 1.9 |
| Average charging energy per vehicle per month (AC kWh) | 9.3 |
| Total number of charging events | 5 |
| Total charging energy (AC kWh) | 9 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#9
11/01/2012 to 11/30/2012
17

All Trips Combined

| Overall gasoline fuel economy (mpg) | 35 |
| :--- | ---: |
| Overall AC electrical energy consumption (AC Wh/mi) $^{1}$ | 14 |
| Overall DC electrical energy consumption (DC Wh/mi) |  |
| Total number of trips | 9 |
| Total distance traveled (mi) | 126 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 38 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 53 |
| Percent of trips city \| highway | 10 |
| Distance traveled (mi) | $50 \%$ |
| Percent of total distance traveled | 134 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 48 |
| Number of trips | 4 |
| Percent of trips city \| highway | $25 \% \mid 75 \%$ |
| Distance traveled (mi) | 135 |
| Percent of total distance traveled | $8 \%$ |
|  |  |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 35 |
| Number of trips | 112 |
| Percent of trips city \| highway | $60 \%$ |
| Distance traveled (mi) | $40 \%$ |
| Percent of total distance traveled | 1,352 |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^12]|  |  |  |
| :--- | ---: | ---: |
| City |  |  |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 42 | 39 |
| :--- | ---: | ---: | :--- |
| DC electrical energy consumption (DC Wh/mi) | 26 | 48 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 2 |
| Average trip distance (mi) | 3.2 | 43.9 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 34 | 35 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 2 |
| Average trip distance (mi) | 3.3 | 25.1 |

## Trip Fuel Economy Distribution By Trip Type



Plug-in charging

| Average number of charging events per vehicle per month when driven | 6 |
| :--- | :---: |
| Average number of charging events per vehicle per day when driven | 0.4 |
| Average distance driven between charging events (mi) | 270.2 |
| Average number of trips between charging events | 21.0 |
| Average time plugged in per charging event (hr) | 4.2 |
| Average time plugged in and drawing power (hr) | 4.2 |
| Average time charging per charging event (power > 200 w) (hr) | 4.2 |
| Average energy per charging event (AC kWh) | 3.8 |
| Average charging energy per vehicle per month (AC kWh) | 22.9 |
| Total number of charging events | 6 |
| Total charging energy (AC kWh) | 23 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven: 10

All Trips Combined

| Overall gasoline fuel economy (mpg) | 38 |
| :--- | ---: |
| Overall AC electrical energy consumption (AC Wh/mi) ${ }^{1}$ | 99 |
| Overall DC electrical energy consumption (DC Wh/mi) ${ }^{2}$ | 46 |
| Total number of trips | 72 |
| Total distance traveled (mi) | 435 |
|  |  |
| Trips in Charge Depleting (CD) mode ${ }^{3}$ | 38 |
| Gasoline fuel economy (mpg) | 66 |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 64 |
| Percent of trips city \| highway | $86 \% / 14 \%$ |
| Distance traveled (mi) | 275 |
| Percent of total distance traveled | $63 \%$ |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 39 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 20 |
| Percent of trips city \| highway | 3 |
| Distance traveled (mi) | $100 \%$ |
| Percent of total distance traveled | 129 |
|  | $30 \%$ |
| Trips in Charge Sustaining (CS) mode7 |  |
| Gasoline fuel economy (mpg) | 31 |
| Number of trips | $50 \% \mid 20 \%$ |
| Percent of trips city \| highway | 31 |
| Distance traveled (mi) | $7 \%$ |
| Percent of total distance traveled | 7. |

Quantum SCAQMD \#15
11/01/2012 to 11/28/2012


[^13]|  |  |  |
| :--- | ---: | ---: |
| City | Highway |  |
| Gasoline fuel economy (mpg) | 36 | 39 |
| DC electrical energy consumption (DC Wh/mi) | 74 | 62 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 3 |
| Average trip distance (mi) | 1.5 | 21.4 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 0 | 39 |
| :--- | :---: | :---: |
| DC electrical energy consumption (DC Wh/mi) | 0 | 20 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ |  | 2 |
| Average trip distance (mi) | 0.0 | 43.0 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 26 | 31 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 6 | 3 |
| Average trip distance (mi) | 0.4 | 29.7 |

Trip Fuel Economy Distribution By Trip Type


Plug-in charging

| Average number of charging events per vehicle per month when driven | 8 |
| :--- | :---: |
| Average number of charging events per vehicle per day when driven | 0.8 |
| Average distance driven between charging events (mi) | 54.4 |
| Average number of trips between charging events | 9.0 |
| Average time plugged in per charging event (hr) | 56.7 |
| Average time plugged in and drawing power (hr) | 56.7 |
| Average time charging per charging event (power > 200 w) (hr) | 7.0 |
| Average energy per charging event (AC kWh) | 5.4 |
| Average charging energy per vehicle per month (AC kWh) | 43.0 |
| Total number of charging events | 8 |
| Total charging energy (AC kWh) | 43 |



Time of Day When Charging


Time of Day When Plugging In


## SCAQMD Quantum Escape PHEV Report

Number of vehicles: 1
Reporting period: November 2012

Date range of data received:
Number of vehicle days driven:

Quantum SCAQMD \#19
11/01/2012 to 11/30/201217

All Trips Combined

| Overall gasoline fuel economy $(\mathrm{mpg})$ | 36 |
| :--- | ---: |
| Overall AC electrical energy consumption $(\mathrm{AC} \mathrm{Wh} / \mathrm{mi})^{1}$ | 73 |
| Overall DC electrical energy consumption $(\mathrm{DC} \mathrm{Wh} / \mathrm{mi})^{2}$ | 61 |
| Total number of trips | 138 |
| Total distance traveled $(\mathrm{mi})$ | 687 |

Trips in Charge Depleting (CD) mode ${ }^{3}$

| Gasoline fuel economy (mpg) | 36 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) |  |
| Number of trips | 62 |
| Percent of trips city \| highway | 125 |
| Distance traveled (mi) | $84 \% \mid 16 \%$ |
| Percent of total distance traveled | 603 |

Trips in both Charge Depleting \& Charge Sustaining (CD/CS) modes ${ }^{5}$

| Gasoline fuel economy (mpg) | 38 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) ${ }^{6}$ | 126 |
| Number of trips | 2 |
| Percent of trips city \| highway | $100 \%$ |
| Distance traveled (mi) | $0 \%$ |
| Percent of total distance traveled | 19 |
|  | $3 \%$ |
| Trips in Charge Sustaining (CS) mode ${ }^{7}$ |  |
| Gasoline fuel economy (mpg) | 36 |
| Number of trips | $\mathbf{3}$ |
| Percent of trips city \| highway | 11 |
| Distance traveled (mi) | $18 \%$ |
| Percent of total distance traveled | 65 |

Gasoline Fuel Economy By Trip Type


Distance Traveled By Trip Type


[^14]Trips in Charge Depleting (CD) mode
City Highway

| Gasoline fuel economy (mpg) | 36 |
| :--- | ---: |
| DC electrical energy consumption (DC Wh/mi) | 64 |
| Percent of miles with internal combustion engine off | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 |
| Average trip distance (mi) | 4.6 |

Trips in Charge Depleting and Charge Sustaining (CD/CS) mode

| Gasoline fuel economy (mpg) | 38 | 0 |
| :--- | ---: | ---: |
| DC electrical energy consumption (DC Wh/mi) | 126 | 0 |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 |  |
| Average trip distance (mi) | 9.5 | 0.0 |

Trips in Charge Sustaining (CS) mode

| Gasoline fuel economy (mpg) | 39 | 32 |
| :--- | ---: | ---: | :--- |
| Percent of miles with internal combustion engine off | $0 \%$ | $0 \%$ |
| Average trip driving intensity ${ }^{8}$ | 4 | 4 |
| Average trip distance (mi) | 4.7 | 11.2 |

Trip Fuel Economy Distribution By Trip Type


|  |  |
| :--- | :---: |
| Plug-in charging | 21 |
| Average number of charging events per vehicle per month when driven | 1.2 |
| Average number of charging events per vehicle per day when driven | 32.7 |
| Average distance driven between charging events (mi) | 6.6 |
| Average number of trips between charging events | 4.2 |
| Average time plugged in per charging event (hr) | 4.2 |
| Average time plugged in and drawing power (hr) | 3.8 |
| Average time charging per charging event (power >200 w) (hr) | 2.4 |
| Average energy per charging event (AC kWh) | 49.8 |
| Average charging energy per vehicle per month (AC kWh$)$ | 21 |
| Total number of charging events | 50 |
| Total charging energy (AC kWh) |  |



Time of Day When Charging


Time of Day When Plugging In



[^0]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

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

[^2]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^3]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^4]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^5]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^6]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^7]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

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

[^9]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^10]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^11]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^12]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^13]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

[^14]:    Notes: 1-8. Please see http://avt.inl.gov/pdf/phev/SCAQMDreportnotes.pdf for an explanation of all PHEV Fleet Testing Report notes.

