Ford Escape Advanced Research Fleet

Number of vehicles: 19  
Date range of data received: 12/01/2010 to 12/31/2010

Reporting period: December 2010  
Number of vehicle days driven: 243

### All Trips Combined

- Overall gasoline fuel economy (mpg): 34
- Overall AC electrical energy consumption (AC Wh/mi): 94
- Overall DC electrical energy consumption (DC Wh/mi): 60
- Total number of trips: 1,077
- Total distance traveled (mi): 15,138

### Trips in Charge Depleting (CD) mode

- Gasoline fuel economy (mpg): 44
- DC electrical energy consumption (DC Wh/mi): 168
- Number of trips: 513
- Percent of trips city | highway: 86% | 14%
- Distance traveled (mi): 3,197
- Percent of total distance traveled: 21%

### Trips in both Charge Depleting & Charge Sustaining (CD/CS) modes

- Gasoline fuel economy (mpg): 34
- DC electrical energy consumption (DC Wh/mi): 54
- Number of trips: 240
- Percent of trips city | highway: 35% | 65%
- Distance traveled (mi): 7,267
- Percent of total distance traveled: 48%

### Trips in Charge Sustaining (CS) mode

- Gasoline fuel economy (mpg): 31
- Number of trips: 324
- Percent of trips city | highway: 69% | 31%
- Distance traveled (mi): 4,672
- Percent of total distance traveled: 31%


Since these vehicles are flex-fuel capable, some driving events are conducted with E-85, which may decrease fuel economy results.

"The Ford Escape Advanced Research Fleet was designed as a demonstration of customer duty cycles related to plug-in electric vehicles. The vehicles used in this demonstration have not been optimized to provide the maximum potential fuel economy."
### Trips in Charge Depleting (CD) mode

<table>
<thead>
<tr>
<th></th>
<th>City</th>
<th>Highway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline fuel economy (mpg)</td>
<td>35</td>
<td>62</td>
</tr>
<tr>
<td>DC electrical energy consumption (DC Wh/mi)</td>
<td>164</td>
<td>172</td>
</tr>
<tr>
<td>Percent of miles with internal combustion engine off</td>
<td>23%</td>
<td>14%</td>
</tr>
<tr>
<td>Average trip driving intensity (Wh/mi)</td>
<td>268</td>
<td>302</td>
</tr>
<tr>
<td>Average trip distance (mi)</td>
<td>4</td>
<td>20</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th></th>
<th>City</th>
<th>Highway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline fuel economy (mpg)</td>
<td>35</td>
<td>34</td>
</tr>
<tr>
<td>DC electrical energy consumption (DC Wh/mi)</td>
<td>52</td>
<td>55</td>
</tr>
<tr>
<td>Percent of miles with internal combustion engine off</td>
<td>24%</td>
<td>5%</td>
</tr>
<tr>
<td>Average trip driving intensity (Wh/mi)</td>
<td>273</td>
<td>325</td>
</tr>
<tr>
<td>Average trip distance (mi)</td>
<td>10</td>
<td>41</td>
</tr>
</tbody>
</table>

### Trips in Charge Sustaining (CS) mode

<table>
<thead>
<tr>
<th></th>
<th>City</th>
<th>Highway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline fuel economy (mpg)</td>
<td>29</td>
<td>31</td>
</tr>
<tr>
<td>Percent of miles with internal combustion engine off</td>
<td>21%</td>
<td>4%</td>
</tr>
<tr>
<td>Average trip driving intensity (Wh/mi)</td>
<td>267</td>
<td>317</td>
</tr>
<tr>
<td>Average trip distance (mi)</td>
<td>4</td>
<td>38</td>
</tr>
</tbody>
</table>

#### Effect Of Driving Intensity (Wheel Energy) on Fuel Economy This Month

![Graph showing the effect of driving intensity on fuel economy](image)

#### Trip Fuel Economy Distribution By Trip Type

![Bar chart showing trip fuel economy distribution by trip type](image)
### Plug-in Charging

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average number of charging events per vehicle per month when driven</td>
<td>36</td>
</tr>
<tr>
<td>Average number of charging events per vehicle per day when driven</td>
<td>2.8</td>
</tr>
<tr>
<td>Average distance driven between charging events (mi)</td>
<td>22.3</td>
</tr>
<tr>
<td>Average number of trips between charging events</td>
<td>1.6</td>
</tr>
<tr>
<td>Average time plugged in per charging event (hr)</td>
<td>8.2</td>
</tr>
<tr>
<td>Average time charging per charging event (hr)</td>
<td>1.5</td>
</tr>
<tr>
<td>Average energy per charging event (AC kWh)</td>
<td>2.1</td>
</tr>
<tr>
<td>Average charging energy per vehicle per month (AC kWh)</td>
<td>75.2</td>
</tr>
<tr>
<td>Total number of charging events</td>
<td>680</td>
</tr>
<tr>
<td>Total charging energy (AC kWh)</td>
<td>1,429</td>
</tr>
</tbody>
</table>

#### Time of Day When Driving

![Time of Day When Driving](chart)

#### Time of Day When Charging

![Time of Day When Charging](chart)

#### Time of Day When Plugging In

![Time of Day When Plugging In](chart)