1999 Nissan Altra EV (Lithium Ion Batteries) Performance Characterization Summary

**Electric Transportation Division**

### Urban Range
(On Urban Pomona Loop—see other side for map)

- **Weight (lb.)**
  - UR-1: 180
  - UR-2: 639
  - UR-3: with aux. loads
  - UR-4: without aux. loads

- **Range (mi.)**
  - 73.7
  - 94.7
  - 96.2
  - 121.5

- **Avg. Ambient Temp.**
  - 78.2°F

**Tests**
- UR1: Urban Range Test, Min Payload, No Auxiliary Loads
- UR2: Urban Range Test, Min Payload, A/C on High, Headlights on Low, Radio On
- UR3: Urban Range Test, Max Payload, No Auxiliary Loads
- UR4: Urban Range Test, Max Payload, A/C on High, Headlights on Low, Radio On

### Freeway Range
(On Freeway Pomona Loop—see other side for map)

- **Weight (lb.)**
  - FW-1: 180
  - FW-2: 640
  - FW-3: with aux. loads
  - FW-4: without aux. loads

- **Range (mi.)**
  - 79.8
  - 82.5
  - 94.4
  - 95

- **Avg. Ambient Temp.**
  - 70.1°F

**Tests**
- FW1: Freeway Range Test, Min Payload, No Auxiliary Loads
- FW2: Freeway Range Test, Min Payload, A/C on High, Headlights on Low, Radio On
- FW3: Freeway Range Test, Max Payload, No Auxiliary Loads
- FW4: Freeway Range Test, Max Payload, A/C on High, Headlights on Low, Radio On

### State of Charge Meter (UR1)

Miles Driven Vs. State Of Charge

### Charger

State of Charge and AC Demand Vs Time

**MEASURED VALUE AT PEAK AC POWER**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voltage</td>
<td>247.3</td>
</tr>
<tr>
<td>Current</td>
<td>25.69 A</td>
</tr>
<tr>
<td>Real Power</td>
<td>6.473 kW</td>
</tr>
<tr>
<td>Reactive Power</td>
<td>618.4 VAR</td>
</tr>
<tr>
<td>Apparent Power</td>
<td>6.582 kVA</td>
</tr>
<tr>
<td>Total Power Factor</td>
<td>0.99 PF</td>
</tr>
<tr>
<td>Displacement Power Factor</td>
<td>0.99 dPF</td>
</tr>
<tr>
<td>Voltage THD</td>
<td>1.10%</td>
</tr>
<tr>
<td>Current THD</td>
<td>3.20%</td>
</tr>
</tbody>
</table>

Test Date: July 1999