Recovery Act Expanding the First Significant U.S. – Based Manufacturing

P.I.: James “Casey” Butler
Presenter: Hiroyuki Yumoto
EnerDel, Inc.
May 11th, 2011

Project ID # ARRAVT003
Timeline
- Jan - 2010
- Jan - 2013
- 40% complete

Budget
- Total project funding
  - 118.5 million
- 118.5 million

Barriers
- Additional Financing
- Customer Demand
- Operations

Partners for the Grant
- Inspec
- Itochu
- Purdue University
- Shiel Sexton
- State of Indiana
Strategic alliances result in the most advanced solutions as technology and infrastructure evolve.
Develop Competitive mass production and engineering capability of Lithium-ion batteries
Enhance supply chain, competitiveness of base materials
Position EnerDel as a Tier 1 auto parts supplier
Create additional energy storage markets in military and stationary power
EnerDel has developed the following vertically integrated manufacturing process to help ensure quality, contain cost, and streamline production.
Completed Manufacturing Processes

- All building modifications
- Dry room expansion
- Electrode manufacturing
- Electrode stacking
- Formation
- Module assembly
## Milestones Met and Future Milestones

<table>
<thead>
<tr>
<th>Milestone</th>
<th>Milestone Title</th>
<th>Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Grant Documentation Signed</td>
<td>X</td>
</tr>
<tr>
<td>2</td>
<td>NEPA/FONSI Approved</td>
<td>X</td>
</tr>
<tr>
<td>3</td>
<td>Start of Production for Think Pack</td>
<td>X</td>
</tr>
<tr>
<td>4</td>
<td>Hired an additional 50 people from start date.</td>
<td>X</td>
</tr>
<tr>
<td>5</td>
<td>Purchase and Install Equipment for 20 EV cell coating capacity</td>
<td>X</td>
</tr>
<tr>
<td>6</td>
<td>Phase II Mt. Comfort Design Complete</td>
<td>X</td>
</tr>
<tr>
<td>7</td>
<td>Hired an additional 100 people from start date.</td>
<td>X</td>
</tr>
<tr>
<td>8</td>
<td>Phase III Mt. Comfort Design Complete</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Purchase and Install Equipment to 40 EV pack capacity</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Hired an additional 500 people from start date.</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Hired an additional 1000 people from start date.</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Purchase and Install Equipment to 60 EV pack capacity</td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>Project Completion</td>
<td></td>
</tr>
</tbody>
</table>
Vice President Biden visited EnerDel on January 26th, 2011