Smart Grid
and the North Carolina Business Community

Marcy Lowe
Senior Research Analyst
Duke University
Center on Globalization, Governance & Competitiveness

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Manufacturing Climate Solutions
15 Clean Tech studies by CGGC

LED Lighting
Efficient Windows
Residential Re-insulation
Water Heaters
Hog Waste Treatment
Recycled Energy

Electric Vehicle Batteries
Hybrid Trucks
Rail Cars
Public Transit Buses
Anti-Idling for Trucks

Wind Power
Solar Power
Carbon Capture & Storage
Smart Grid
U.S. Smart Grid Vendor Firms

Total locations: 334
- Device manufacturing (70)
- Hardware development (76)
- Software development and services (63)
- Headquarters (125)
<table>
<thead>
<tr>
<th></th>
<th>U.S. headquarters</th>
<th>Device manufacturing</th>
<th>Hardware development</th>
<th>Software development and/or services</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total locations</strong></td>
<td>125</td>
<td>70</td>
<td>76</td>
<td>63</td>
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<td><strong>Top regions</strong></td>
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<td>California</td>
<td>35</td>
<td>Southeast</td>
<td>26</td>
<td>Midwest</td>
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<td>Northeast</td>
<td>33</td>
<td>Midwest</td>
<td>18</td>
<td>Southeast</td>
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<td>25</td>
<td>Northeast</td>
<td>12</td>
<td>California</td>
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<td>23</td>
<td>California</td>
<td>5</td>
<td>Northeast</td>
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<td><strong>Top states</strong></td>
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A Natural Cluster

Total firms: 58
Total locations: 104
Who are the Smart Grid Vendor Firms?

- Communications
- Meter hardware
- Energy Management
- Consulting
- IT
- Energy specialty firms
- Smart grid specialty firms
- Telecom service
- "Legacy" power
- ABB
- Alcatel-Lucent
- elster
- Johnson Controls
- Accenture
- SAS
- MegaWattSolar
- at&t
Triangle’s smart grid assets

R&D
- FREEDM Systems Center

EE & RE
- GREEN JOBS FOR North Carolina

Ft. Bragg microgrid

Renewable p. standards

EVs
- Project Get Ready

[Map of USA showing states with different colors representing different energy portfolio standards]
Who leads in implementing Smart Grid?

- State of CA
- Boulder, CO
- Austin, TX
How can we build on our strengths?

- Use our charisma
- Work with utilities, governments
- Set ambitious environmental goals
- Emphasize workforce development
Thank you for your attention!

Marcy Lowe, CGGC
Duke University
Center on Globalization, Governance & Competitiveness
marcy.lowe@duke.edu
(919) 681-4982