North Carolina E3 Experience

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E3 is an innovative, community-based effort to establish self-sustaining initiatives that simultaneously increase the sustainable practices and profitability of manufacturers.
E3: Strengthening Manufacturing in North Carolina

200+ partners
24 communities
48 manufacturers
200+ technical assessments
350+ workers trained
Survey roughly 20% of clients

170 North Carolina jobs
$9.3 million in realized savings
$23+ million in economic impact
E3 Framework

E3: ECONOMY - ENERGY - ENVIRONMENT
SUPPORTING MANUFACTURING LEADERSHIP THROUGH SUSTAINABILITY

- Program Management
- Partner Engagement
- Technical Delivery
- Impact Assessment
- Program Sustainment
• One driver – unbiased – equal respect and trust
• Clear vision and goals
• What does the process/experience look like
• Stop planning start doing
• Sharable project management dashboard
Deploying E3 in a Community

E3: Economy, Energy, and the Environment

Assess ➔ Transform ➔ Sustain

<table>
<thead>
<tr>
<th>Community Partnerships</th>
<th>Assess</th>
<th>Transform</th>
<th>Sustain</th>
</tr>
</thead>
</table>
|                        | • Engaging leadership  
|                        | • Identifying community needs  
|                        | • Assessing sustainability initiatives  | • Linking community leadership with manufacturers  
|                        | | • Generating economic impact  
|                        | | • Developing E3 leadership  | • Establishing E3 councils  
|                        | | | • Maintaining leadership support  |

<table>
<thead>
<tr>
<th>Manufacturers</th>
<th>Assess</th>
<th>Transform</th>
<th>Sustain</th>
</tr>
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</table>
|               | • Identifying E3 technical resource needs:  
|               | - Lean and green review  
|               | - Energy assessment  
|               | - Greenhouse gas evaluation  
|               | - Promoting business excellence assessment  
|               | - Worker safety review  | • Implementing improvement projects  
|               | | • Providing solutions to workforce development needs  
|               | | • Connecting to financial assistance  
|               | | • Setting long-term goals and programs  | • Participating in E3 councils  
|               | | | • Sharing best practices  
|               | | | • Meeting long-term goals  |

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<th>Transform</th>
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</table>
|                        | • Recognizing strengths  
|                        | • Defining roles and responsibilities  
|                        | • Confirming availability  | • Integrating activities  
|                        | | • Providing comprehensive services  
|                        | | • Enhancing collaboration  | • Maintaining advocacy network  
<p>|                        | | | • Strengthening program stability through continued funding  |</p>
<table>
<thead>
<tr>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
<th>H</th>
<th>I</th>
</tr>
</thead>
<tbody>
<tr>
<td>E3 Community</td>
<td>ED Region</td>
<td>Status</td>
<td>Manufacturers</td>
<td>Energy Provider</td>
<td>Client Contact</td>
<td>Technical work completed</td>
<td>Next Steps</td>
<td></td>
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<tr>
<td>Rowan County</td>
<td>Charlotte</td>
<td>Completing Technical Assessments</td>
<td>Implementation projects underway</td>
<td>Duke Energy (Ashley Enes)</td>
<td>Tim Hensley</td>
<td>ALL</td>
<td>Implementation Project</td>
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<tr>
<td>Durham County</td>
<td>RTRP</td>
<td>Implementation projects underway</td>
<td>Volassis Communication - Scholarship Recipient</td>
<td>Duke Energy (Dwight Moore)</td>
<td>Ken Henry</td>
<td>ALL</td>
<td>Implementation Project</td>
<td></td>
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<tr>
<td>Henderson County</td>
<td>AsxWest</td>
<td>Implementation projects underway</td>
<td>Manual Wood Workers - Scholarship Recipient</td>
<td>Duke Energy (Paula Clark)</td>
<td>Dave Parker</td>
<td>ALL</td>
<td>Implementation Project</td>
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<tr>
<td>Halifax County</td>
<td>Northeast</td>
<td>Completing Technical Assessments</td>
<td>therefore funded</td>
<td>GHG, LGC, Energy, Safety</td>
<td>ALL</td>
<td>Implementation Project</td>
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<tr>
<td>South Iredell</td>
<td>Charlotte</td>
<td>Scheduling assessments</td>
<td>GMI - Scholarship Recipient</td>
<td>Duke Energy</td>
<td>Probe, LGC, Energy, Safety, GHG</td>
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Partner Engagement

- Community Partners vs. Technical Partners vs. Manufacturing Partners
- Engagement isn’t always equal, neither is the $
- Clear message and marketing – selling apple pie!
- Success builds on success – videos, stories, etc.
- Lead generation channels through partners w/ goals
Technical Delivery

- What does the service package look like?
- Who can do what for how much and when?
- Competition vs. Collaboration
- Expectation management
- What’s the end product/deliverable?
- What information can be shared across partners?
## Time and Personnel Commitment

<table>
<thead>
<tr>
<th>Assessment</th>
<th># of days</th>
<th># of Participants</th>
<th>Participant Type</th>
<th>Prep Work Required</th>
</tr>
</thead>
</table>
| **Business Excellence Assessment** | Day 1: 1 hr for personal assessment  
Day 2: 2 hrs for group assessment  
Day 3: 4 hrs for facilitated assessment | 5 - 7 people      | Cross Section of company:  
1-2 top managers,  
2-3 middle mgmt,  
2-3 associates                                                | Company Profile        |
| **Lean and Green Review**       | 2- 3 days (depending on size and complexity of the process chosen)        | 3 – 10 people     | People involved in the process to be Value Stream Mapped are needed. Others may include top management, department heads, associates from area, etc. | E3 Pre-Assessment Survey |
| **Energy Systems Assessment**   | 1 - 2 days (depending on size of the facility)                             | 1 person          | Person knowledgeable in the facility systems to escort energy assessor            | Energy Data              |
| **Greenhouse Gas Evaluation**   | 0.5 - 1 day                                                                | 1 – 6 people      | Personnel trained in the use of the Greenhouse Gas Tool                           | Energy Data              |
| **Worker Safety Review**        | 1 day                                                                      | 1 person          | Escort for safety assessor                                                         | NC OSH request form      |
Impact Assessment

• Metrics and reporting overload
• Who wants what data when?
• Make it easy on the client!
• Create a feedback process to partners
• Quantitative vs. Qualitative
Program Sustainment

- Partnerships evolve, grow and change
- Stay engaged online and in-person
- Create opportunities for recognition
- Allow partners to tell their success story

- Build a self-sustaining financial model
E3 Project Implementation

Economic Ripple Effect

Strengthened Retention, Expansion, & Marketing Strategy

Improved Engagement, Efficiencies, Productivity & Profitability

Best Practice Sharing & Sustainability Council
E3 Framework

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E3 NC Contact - http://e3.ies.ncsu.edu/

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