VISION
Forge a universally strong cold chain where every product retains quality and safety through each link.

MISSION
Grow the industry and lead the cold chain.
SUPPLY CHAIN PROFITABILITY
Energy Excellence Recognition Program

Qualitative

Quantitative
- Energy Champion/Team
- Energy Waste Walks
- Site-Specific Energy KPI Goals
- Energy Efficiency Action Plans
- Energy Monitoring Activities
COMPLETE YOUR ENERGY MANAGEMENT ASSESSMENT

The Energy Management Assessment (EMA) Tool offers a strategic and confidential analysis of your organization’s current energy management business practices and specific areas of opportunity. The EMA Assessment and other SEM Hub resources can then help you develop or improve your Strategic Energy Management (SEM) practices for your organization.

TAKING THIS ASSESSMENT WILL HELP YOU:

- Review your current energy practices
- Identify priority actions for improvement
- Implement an energy management program
- Compare your practices against your peers

Review the quick start guide ➔ | Take a sample assessment ➔
RECOMMENDATIONS FOR YOUR BUSINESS

The following recommendations are provided based on the results of your self-assessment. The recommendations are prioritized based on your responses provided in the self-assessment, your level of development in each of the 12 components and the assessment prioritization factors for each component.

<table>
<thead>
<tr>
<th>Energy review and analysis</th>
<th>By When</th>
<th>By Whom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conduct a review of your energy using equipment and energy bills to identify savings opportunities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>More info: <a href="https://semhub.com/resources/browse?query=audit">https://semhub.com/resources/browse?query=audit</a></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Action plans

Prepare an energy improvement plan(s) for the current year for reducing energy use and organizational activities. Incorporate clear timelines and responsibilities for each project and activity.

More info: https://semhub.com/resources/browse?query=Energy project

Operations and maintenance

Review and review your standard operating procedures to include specific actions to reduce energy waste to ensure persistence of energy savings.

More info: https://semhub.com/resources/browse?query=operations-maintenance

YOUR SELF-ASSESSMENT RESULTS

1. Management commitment
2. Resources (human and financial)
3. Energy review and analysis
4. Energy KPIs and targets
5. Action plans
6. Operations and maintenance
7. Monitoring and analysis
8. Employee engagement
9. Reporting, review and reassessment
10. Procurement and design
11. Documentation and records
12. Energy management system audits

Component Description
1. Management commitment
   Executive involvement in promoting and deploying energy management
2. Resources (human and financial)
   Resources required for with energy management, including budgets, energy leaders, energy teams
3. Energy review and analysis
   Regular assessment of energy consuming activities and waste
4. Energy KPIs and targets
   Strategically relevant metrics of energy consumption and waste
5. Action plans
   Specific plans related to energy management
6. Operations and maintenance
   Ongoing attention to energy during regular business operations
7. Monitoring and analysis
   Monitoring of energy consumption at the appropriate level and the continuous analysis of data
8. Employee engagement
   Employee involvement in energy consumption and savings
9. Reporting, review and reassessment
   Information flow and periodic adjustments in response to changes, including energy in purchasing and design of equipment and supplies
10. Procurement and design
    Documentation of operational processes and the management system
11. Documentation and records
    Periodic assessment of the entire management system for energy
12. Energy management system audits

Congratulations!!!
Best in Class, Outstanding!!!
You have rated your business at the Best in Class level (6) for the following components:
Management commitment
Documentation and records
### Refrigeration System

<table>
<thead>
<tr>
<th>Refrigeration System Type</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ammonia Single Stage Screw</td>
</tr>
<tr>
<td>Ammonia Two Stage</td>
</tr>
<tr>
<td>Low Charge Ammonia</td>
</tr>
<tr>
<td>CO2 Refrigerant</td>
</tr>
<tr>
<td>Freon Air Cooled</td>
</tr>
<tr>
<td>Freon Water Cooled</td>
</tr>
<tr>
<td>Other / Unknown</td>
</tr>
</tbody>
</table>

### Door Automation

<table>
<thead>
<tr>
<th>Door Automation by Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blast Freezers</td>
</tr>
<tr>
<td>Conventional Freezers</td>
</tr>
<tr>
<td>Refrigerated/Chilled</td>
</tr>
</tbody>
</table>

### Facility Lighting

<table>
<thead>
<tr>
<th>Facility Lighting Type by Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>LED</td>
</tr>
<tr>
<td>T5</td>
</tr>
<tr>
<td>T5HO</td>
</tr>
<tr>
<td>T8</td>
</tr>
<tr>
<td>T12</td>
</tr>
<tr>
<td>Mercury Vapor</td>
</tr>
<tr>
<td>Metal Halide</td>
</tr>
<tr>
<td>High Pressure Sodium</td>
</tr>
<tr>
<td>Other</td>
</tr>
</tbody>
</table>

### Building Envelope R-values

<table>
<thead>
<tr>
<th>Building Wall R-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building Roof R-value</td>
</tr>
</tbody>
</table>
Corelation Graphics - Comparing Energy Use to Dry Bulb, Wet Bulb and Throughput

**ENERGY USE (compared to) OA DRY BULB TEMP**
- Correlation Factors Year 1, 2, 3
  - Year 1: 0.795
  - Year 2: 0.804
  - Year 3: 0.767
- Green indicates weather may directly effect energy use, building envelope and insulation may warrant further review.

**ENERGY USE (compared to) PRODUCT THROUGHPUT**
- Correlation Factors Year 1, 2, 3
  - Year 1: 0.913
  - Year 2: 0.847
  - Year 3: 0.596
- Green indicates product throughput greatly effects energy usage and may warrant review of doors and door controls.

**ENERGY USE (compared to) OA WET BULB TEMP**
- Correlation Factors Year 1, 2, 3
  - Year 1: 0.774
  - Year 2: 0.762
  - Year 3: 0.836
- If green, and greater than dry bulb correlation in previous column then refrigeration system may warrant review.
Total Annual Energy Use and Product Throughput (snapshot of annual facility data)

<table>
<thead>
<tr>
<th></th>
<th>Product</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Energy</td>
<td>7,190,913</td>
<td>7,869,609</td>
<td>7,039,288</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Annual Energy Use Per Product Throughput (Energy / Pounds Product)
## Quarterly Reports - Comparison of Current Quarter to Average of First Year

<table>
<thead>
<tr>
<th>Quarter</th>
<th>Product Throughput</th>
<th>Total Energy Consumed</th>
<th>Energy Per Throughput</th>
<th>Average Energy per Throughput Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Q1 Y1</td>
<td></td>
<td></td>
<td></td>
<td>6%</td>
</tr>
<tr>
<td>Q2 Y1</td>
<td></td>
<td></td>
<td></td>
<td>19%</td>
</tr>
<tr>
<td>Q3 Y1</td>
<td></td>
<td></td>
<td></td>
<td>1%</td>
</tr>
<tr>
<td>Q4 Y1</td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Q1 Y2</td>
<td></td>
<td></td>
<td></td>
<td>11%</td>
</tr>
<tr>
<td>Q2 Y2</td>
<td></td>
<td></td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>Q3 Y2</td>
<td></td>
<td></td>
<td></td>
<td>27%</td>
</tr>
<tr>
<td>Q4 Y2</td>
<td></td>
<td></td>
<td></td>
<td>24%</td>
</tr>
<tr>
<td>Q1 Y3</td>
<td></td>
<td></td>
<td></td>
<td>18%</td>
</tr>
<tr>
<td>Q2 Y3</td>
<td></td>
<td></td>
<td></td>
<td>31%</td>
</tr>
<tr>
<td>Q3 Y3</td>
<td></td>
<td></td>
<td></td>
<td>15%</td>
</tr>
<tr>
<td>Q4 Y3</td>
<td></td>
<td></td>
<td></td>
<td>14%</td>
</tr>
</tbody>
</table>
## Gold Level Qualification (Energy Savings vs Throughput)

<table>
<thead>
<tr>
<th>Facility Savings - Energy Per Throughput - 10% Reduction Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1 to Year 2</td>
</tr>
<tr>
<td>Year 1 to Year 3</td>
</tr>
<tr>
<td>Year 1 to Year 4</td>
</tr>
<tr>
<td>Year 1 to Year 5</td>
</tr>
<tr>
<td><img src="image" alt="Red Diamond" /></td>
</tr>
<tr>
<td><img src="image" alt="Yellow Triangle" /></td>
</tr>
</tbody>
</table>
GROW THE INDUSTRY
Results and findings of GCCA’s research into food companies’ perceptions of the cold chain, and how cold chain providers can improve their services and relationships with these partners.
Respondent Company Function

- 57% Food Manufacturers/Processors
- 29% Refrigerated/Frozen Distribution
- 14% Agriculture production, Retail, HRI
Respondent Position

- 67% Directors/Managers
- 11% C-Suite Executives
- 9% CEO/Owners
- 13% Other
Respondent Company Revenue

- $100,000,000 or Greater: 55%
- $50,000,000 - $10,000,000: 20%
- Less than $10,000,000

$100,000,000 - 50,000,000
Customer Headquarters

69%

13%

5%
Needs & Wants in a Cold Chain Provider

Space Locally  Decrease Labor Rate

Location  Interactive Website

Communication  More Storage Capacity

Accuracy and Reliability

Nothing/Satisfied  Customer Service

Transparency  Robotics  Reporting

Help with Future E-Commerce

Privacy  Cost  Strategic Partnership

Chilled Capability  Proximity to Supply
KPIs Ranked

1. Shipping Accuracy
2. Warehouse Cost per Unit
3. On-Time Delivery/On-Time Shipment
4. Inventory/Cycle Count Accuracy
5. Out-bound Turn Times
6. In-bound Turn Times
7. Recent Warehouse Audit Score (AID, BRC, SQF, etc.)
8. Warehouse Shrinkage (adjustments)
9. Case Pick Percentage
I think the industry could use some standardization, frankly, in terms of their reporting back to their clients or retailers. So, With some consistency there, I think that to me, represents a big step that can be made.

- 2017 Retailer Focus Group
Factors in selecting a 3PL partner

- Regulatory Compliance
- Customer Service
- Location
- Established Relationship
- Traceability
- Pricing
- Reputation
Temperature-Controlled Logistics Costs in the Last 24 Months

<table>
<thead>
<tr>
<th></th>
<th>Decreased</th>
<th>Increased</th>
<th>Stayed the Same</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Temperature-Controlled</td>
<td>11</td>
<td>217</td>
<td>21</td>
<td>159</td>
</tr>
<tr>
<td>Outsourcing Logistics</td>
<td>6.29%</td>
<td>78.87%</td>
<td>13.21%</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Temperature-Controlled</td>
<td>6</td>
<td>101</td>
<td>26</td>
<td>133</td>
</tr>
<tr>
<td>Insourcing Logistics</td>
<td>4.51%</td>
<td>75.94%</td>
<td>19.55%</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Temperature</td>
<td>10</td>
<td>130</td>
<td>21</td>
<td>161</td>
</tr>
<tr>
<td>Controlled Logistics</td>
<td>6.21%</td>
<td>80.75%</td>
<td>13.04%</td>
<td></td>
</tr>
<tr>
<td>Costs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Companies with an annual revenue greater than $100,000,000 saw ‘Warehouse Cost Per Unit’ drop to #4 compared to #1 in overall reporting.

When looking at company type or function, those in refrigerated or frozen distribution saw “Warehouse Cost Per Unit” drop to last place (#9).
Cost Shares are derived from most recent GCCA Productivity & Benchmarking program

- Labor: 35%
- Rent / Lease / Mortgage: 31%
- Electricity: 8%
- Repairs: 4%
- Supplies: 1%
- Other: 21%
How likely are customers to promote the use of temperature-controlled 3PL services?

- **Detractor**: 30%
- **Passive**: 34%
- **Promoter**: 36%
“Overall satisfaction with your primary cold chain provider.”

- **30%** Extremely Satisfied
- **43.57%** Somewhat Satisfied
- **7.85%** Neither Satisfied nor Dissatisfied
- **13.57%** Somewhat Dissatisfied
- **5%** Extremely Dissatisfied

**Extremely Satisfied:**
- 56.69% of companies Greater than $100,000,000 are Extremely Satisfied
- 40% of companies $50,000,000 to $100,000,000 are Extremely Satisfied
- 29.41% of companies $10,000,000 to $50,000,000 are Extremely Satisfied
- 50% of companies Less than $10,000,000 are Extremely Satisfied
**Net Promoter Score**

*In the NPS range of -100 to 100+, anything above 0 is considered “good”, while anything above 50+ is “excellent.”*
Most common reasons for ceasing work with a 3PL

- Insufficient Capacity
- Customer Service Issues
- Poor Management of Operations
- Pricing
Business trends in the next 5 years

- Financial
- Automation & technology
- Changing market place
- e-Commerce and non-traditional delivery
- Food safety & protecting the brand
- Human resources
- Operations
- Quality standards
- Regulations & compliance
- Sustainability efforts
My cold chain provider plays an important role in my company’s food safety.
Cold chain 3PL providers are experts in temperature and supply chain management. They partner with fresh/frozen food companies and retailers to provide distribution, warehousing and value-added services that enable these companies to:

Protect and enhance the brand
Thank You!

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@CoreyRosenbusch
+1 703 373 4300