Realizing energy and ancillary maintenance savings with energy management

Case Study

Company Name: Beech-Nut

Industry: Food

Location: Amsterdam, New York

Annual Electric Savings: 709,480 kWh

Annual Natural Gas Savings: 12,909 MMBtu

Overview

Beech-Nut is the U.S.-based baby food brand for Hero Group, with the mission of providing high-quality, safe, and nutritious foods for babies and toddlers. The company offers fruits, vegetables, meats, and cereals in natural, organic, and classic product lines and packaged in glass jars, plastic cannisters, and flexible pouches. The company is headquartered in Amsterdam, New York, where its only food processing plant is located.

Beech-Nut’s operation is a 560,000 square foot facility that has a raw material receiving station, warehouse, and cold storage area as well as space for food processing, packaging, shipping, mechanical equipment, and offices.

Plan in Action

CHA Consulting, Inc. was contracted over a 24-month period by Beech-Nut for part-time, on-site energy management. CHA provided one energy manager and one support staff to launch the energy management program. General responsibilities of the energy manager were associated with providing technical assistance, training, identifying opportunities, promoting continuous improvement, implementation of energy management strategies and projects (including incentives), and verifying the results. The site energy reduction goal was to achieve an 8 percent reduction in energy consumed over the period of 24 months.

Utility Partnership

In addition to participating in the New York State Energy Research and Development Authority’s (NYSERDA) On-Site Energy Manager program, Beech-Nut enrolled in National Grid’s Strategic Energy Management Partnership (SEMP) program. The SEMP program offered direct collaboration with National Grid for reviewing energy trend data, insights into programs supporting renewables and solar photovoltaic (PV) charging, and guidance on financial incentives for undertaking energy efficiency projects. The partnership resulted in Beech-Nut participating in National Grid’s rebates and the Retrofit (Compressed Air Systems) Program, which provided vital support for driving key projects forward.
<table>
<thead>
<tr>
<th></th>
<th>Target</th>
<th>Installed (Acquired) Progress</th>
<th>Identified (Pipeline) Progress</th>
<th>Identified + Installed (Total) Progress</th>
<th>% Installed Progress Against Target</th>
<th>% Identified Progress Against Target</th>
<th>Identified + Installed (Total) Progress</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Annual Electric Energy Savings, kWh</strong></td>
<td>824,000</td>
<td>709,480</td>
<td>492,337</td>
<td>1,201,817</td>
<td>86%</td>
<td>60%</td>
<td>146%</td>
</tr>
<tr>
<td><strong>Annual Gas Energy Savings, MMBtu</strong></td>
<td>14,000</td>
<td>12,909</td>
<td>12,352</td>
<td>25,261</td>
<td>92%</td>
<td>88%</td>
<td>180%</td>
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“Beech-Nut’s mission is to ‘Delight Consumers by Conserving the Goodness of Nature’ and at the heart of this is our commitment to sustainability. Joining forces with both NYSERDA and National Grid has been vital in guiding us to achieve our electrical and natural gas reduction goals, as well as setting us up on a continued path of energy reduction with the identification of additional efficiency improvement opportunities. We believe in taking the responsibility to build a more sustainable business and environment fit for the needs of tomorrow”

— Jordan Baker, Engineering Supervisor

### Results

Sixty-six potential energy projects were identified across the facility, and 15 projects were installed projects with a total capital investment of $295,477. The total cost savings from the installed projects is $91,499, resulting in a simple payback of 1.4 years after accounting for $145,890 of incentives received. In addition to energy savings, several projects had ancillary maintenance savings benefits.

The COVID-19 pandemic created challenges in performing site visits, obtaining site data, and implementation timeframes during 2020 and 2021. Despite clear obstacles in dedicating resources toward energy projects, the energy team produced impressive solutions to improve operations and cost-competitiveness.

### The NYSERDA On-site Energy Manager Program

Through the On-site Energy Manager (OsEM) Pilot Program, NYSERDA cost-shares up to 75% of the cost to hire an OsEM. OsEMs work with companies to develop and implement successful energy and productivity projects. Projects may include operation and maintenance improvements, behavioral changes, energy efficiency upgrades, process improvements, throughput and scrap reduction improvements, and cost management.

Discover how to bring energy costs under control and maximize profitability with NYSERDA.

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