Green Buildings - Industrial Hero/Beech-Nut New Infant Food Manufacturing Plant Florida, New York

Program
NYSERDA New Construction Program

Scope of Services
- Project Scoping
- Design Assistance
- DOE-2.1E Whole Building Modeling
- Green Building Services
- EEM/Sustainable Design Coordination
- Cost Benefit Analysis
- Incentive Calculation & Reporting
- LEED Optimize Energy Performance
- LEED Fundamental Commissioning
- LEED Enhanced Commissioning

Level of Involvement
NCP Technical Assistance Provider
LEED Commissioning Authority

Facility Size
650,000 sq. ft.

Facility Type
Infant Food Manufacturing/Office

Project Goals
Pursuing LEED-NC v2.2 Certification

Beech-Nut's corporate culture required that construction must be performed with sustainability as a priority. Toward that end, this facility was designed with high efficiency electrical and mechanical equipment to minimize energy consumption; all systems requiring potable water are either low use fixtures or systemically designed to maximize water recycling; and the work environments made as pleasant as possible within the constraints of a food manufacturing plant.

The project is located on 120 acres of property zoned for industrial use in the Town of Florida, NY. It is master planned with the building located on the site to both minimize impact to wetlands and maximize undisturbed area. The disturbed acreage is approximately 60 of the 120 acres.

New Infant Food Manufacturing Plant

The Hero/Beech-Nut manufacturing facility was constructed through a design-build project delivery method. Design-build projects differ from design-bid-build projects, as the design-building firm is usually the general contractor and the design professional. As a result, design documentation is developed and issued as the facility is being constructed. This presents a challenge when integrating energy efficiency and sustainable features into the design; however, through due diligence and effective coordination, EME Group was able to increase the facility's overall sustainability and energy efficiency, most noticeably by recommending installation of NEMA premium efficiency motors.

During our specification review, we discovered that EPAct 1992 compliant motors had been specified for the approximately 5,000 combined horsepower of process and HVAC-related motors. Since many of these motors have run-times in excess of 18 hours per day, EME provided an economic summary that illustrated annual energy and cost savings of 1,364 MWh and $62,779 resulting in a 2.8-year payback. Based on our analysis, the project team elected to install NEMA premium efficiency motors for all process and HVAC-related motors. Based on the use of premium efficiency motors and other energy efficiency measures including high efficiency lighting, heat recovery, high performance glazing and lighting controls, the project was offered the maximum incentive available.