

# CASE STUDY: Innovative Energy Systems

Client: Innovative Energy Systems  
Project: Landfill-Gas-to-Energy Power Plant  
Industry: Green/Utilities  
Location: Oakfield, New York, United States

Project Specifics  
Schedule: Start—September 2007 / Completion—July 2008  
Space: 10,000-sq.-ft. 3-engine, 4-8-megawatt power plant  
Service Offered: General Contracting

## CLIENT PROFILE

Innovative Energy Systems, Inc. (IES), based in Oakfield, New York, is a privately owned New York State Corporation. They specialize in recovering methane gas from landfills to create profitable and environmental benefits: they use the landfill gas as an alternative energy source. IES offers full-service design, engineering, and manufacturing in all aspects of methane gas recovery for the subsequent use in landfill-gas-to-energy plants.

## PROJECT CHALLENGES & OBJECTIVES

IES needed to find a reliable, experienced partner to help them construct a new power plant for their client, Casella Waste Systems. Casella Waste Systems typically handled their own power-plant construction projects from start to finish. However, for this project, the owner of Casella Waste Systems wanted to find a partner to help with the overall management of the power plant so that the team could have some free time to undertake other projects and initiatives.

IES, in turn, needed to find a highly capable general-construction partner who could help them take Casella Waste Systems' vision to fruition. They needed a strong partner who could see their vision and the bigger picture but who could break it down into all the minuscule details needed to successfully complete the project on time, within budget, and per expectations. This partner would also have to work closely with IES to ensure the client's needs were met each step of the way. Casella Waste Systems would be keeping an eye on the activities from a high-level standpoint; however, IES and the selected partner would focus on the day-to-day management and general contracting needs.

## SOLUTION

After the bid request went out to three potential partners and responses were reviewed, IES selected Navalis Construction Services to help execute the project plan. To begin, the Navalis team reviewed the architectural drawings and suggested several ways to enhance the plan specifics. In addition, Navalis identified several changes that would avoid potential build risks and budget increases. In the end, the collaboration between IES and Navalis paid off, ensuring the initial plans met the requirements and expectations of Casella Waste Systems executives. Very few change orders were made as well—as a result of the solid planning efforts.

As the project kicked off, so did the weather! The building schedule had to be flexible enough to anticipate all types of weather patterns in the winter months. Specific plans were put in place to address weather conditions—to protect the building and materials. In addition, depending on the conditions, the schedule easily flexed to account for heavier and lighter work shifts. Additional workers were brought on board when needed to keep to timelines. Once construction was almost complete, Navalis began the system-testing process to ensure all systems (electric, plumbing, heating/cooling, etc.) were in working order. A specific test plan was created and implemented to ensure the right systems were tested at the right times and in the necessary order.

## BENEFITS & RESULTS

The result was the creation of a state-of-the-art green facility that met all government regulations and client expectations. "We put our heart and soul into the project and saw the entire project through," said Jim Rowley, project manager at Navalis Construction Services.

"Our team collaboration helped to make this highly visible project a true success. Working with Navalis' team enabled us to deliver on what we promised. The final outcome was very well received by Casella Waste Systems' executives," said Peter H. Zeliff, president and chief executive officer at Innovative Energy Systems, Inc.

