



## **Powering Forward Without Disruption**

Seamless generator upgrade at Bradley International Airport delivers efficiency gains while maintaining uninterrupted operations.

Serving more than 6 million travelers each year, Bradley International Airport needed to modernize its power generation infrastructure to reduce emissions and improve efficiency without impacting daily operations. Working with Ameresco and a broad team of project stakeholders, RoviSys modernized legacy control systems to support new Waukesha generators, overcoming challenges related to complex system interfaces, aging documentation, and the original application code. The outcome was a seamless transition that kept this airport running smoothly and positioned it for future upgrades.

## The Problem

Bradley International Airport in Hartford, Connecticut, the second largest airport in New England, serves over 6+ million travelers annually. To lower carbon emissions and increase system efficiency, the decision was made to replace their aging generators with new Waukesha units. Energy services company, Ameresco, which operates the facility, decided to keep the existing controls during the generator update. This required an application update to control the new generators without interrupting the daily operations of the international airport. The implementation involved many challenges including the involvement of multiple vendors, aging documentation, and the interpretation and update of legacy GE code. Airports can present unique challenges when updating control systems and RoviSys proved to be up to the task.

## Our Role

RoviSys worked with several parties including the generator manufacturer, the general contractor, site operations and the existing PLC system integrator to deliver a solution to provide control to the new generators. The updated generators are Waukesha 1350kW units replacing Waukesha 1200 kW units.

The PLC controlling the generator system is a GE 90-30 PLC that interfaces to a Rockwell Automation ControlLogix running the balance of plant (BOP) systems and a FactoryTalk View visualization served as the SCADA system. As part of the update to the GE controller application, interfaces to a variety of components had to be maintained.


## The Solution

RoviSys focused exclusively on the PLC work, deciphering the existing GE application to make the necessary updates for the new generators. This required a thorough examination of the existing application code and aging documentation. Expert team worked to gain a complete understanding of the existing application before updating it for the new generators. This diligence ensured that the GE 90-30 controllers functioned correctly, adapting them to the updated infrastructure.

Upon completion of the project, Bradley International Airport has an updated application to keep operations running smoothly until future upgrades are required. The team from RoviSys coordinated work with various stakeholders using outdated documentation and information from disparate sources to enable an effective integration and smooth transition to the new generators.

## The Result

During the 6 month effort, RoviSys successfully integrated existing PLCs with the new generators on time and on budget, and satisfied the new power requirements of the airport. By developing relationships with multiple vendors, diligent study of aging documentation and dedication to customer needs, RoviSys enabled Bradley International Airport to operate cleanly and efficiently with its new generators and updated controls. Future upgrades may include a migration from the GE 90-30 controller to a modern Emerson RX3i controller, the system is functional and stable, with no urgent need for additional upgrades.



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