

## Case Study:

# Revamping Direct Energy Systems: Tackling VFD Challenges with WEG CFW11 Drives and EDP11 Panels



## Seamless BAS Integration Through Programming

### Objective

- To achieve seamless integration and operational efficiency through the replacement of outdated VFDs with WEG CFW11 Drives and EDP11 Panels

### Solutions

- On-site programming for seamless integration with existing Building Automation System (BAS)
- Landing discreet I/O connections, confirming points, and scaling for the newly installed WEG CFW11 VFDs
- Conducted a Hand off Auto switch test to enable local operation in case of BAS network failure
- Training on the WEG WPS 3.0 Software for parameter backup and fault code identification

### Results/Benefits

- Improved water pressure control
- Energy savings
- Enhanced system reliability

### Background

A direct energy customer was grappling with a complex issue involving their existing chilled water pumps and Variable Frequency Drives (VFDs). The existing VFD cabinet, a Baldor 150HP, had been retrofitted with two new WEG Enclosed Drive Panels (EDP11) for each pump as part of a service agreement.

Additionally, the VFDs were outdated and needed to be replaced in order to be successfully integrated with the existing Building Automation System (BAS). These VFDs were causing inefficiencies and lacked the advanced features necessary for modern energy solutions.

The challenge was not just to replace the VFDs but to ensure a reliable electrical feed and wiring for the newly installed WEG CFW11 440-460Vac/180-142A VFDs. A flawless integration was necessary to ensure that the system could display proper feedback from the pumps, maintain on and off control, and disable and enable the system through BAS technology.

The task's complexity was compounded by the need for on-site programming, confirming points and scaling for the new WEG CFW11 VFDs. The customer had concerns about the transition, especially regarding the interface between the new VFDs and the existing BAS network, because of the potential for operational disruptions during the transition.

### Quad Plus Solution

Our team performed on-site programming and provided guidance on landing discreet I/O connections, confirming points, and scaling for the two newly installed WEG CFW11 440-460Vac/180-142A VFDs. We verified the interface between the BAS and VFD, ensuring a seamless integration with the existing Building Automation System (BAS).

The results were immediate and impactful. We successfully programmed the new WEG CFW11 Drives and connected points between the I/O module on the drives and the BAS network. In addition, we conducted a Hand off Auto switch test, granting the system the capability to operate locally in the event of a BAS network connection failure.



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