

# Power System Design for Edible Oils Processor

An edible oil processor partnered with MAVERICK to engineer, design and implement a fast-tracked, high-profile project in a difficult regulatory environment.

## Main Objective

The customer needed to upgrade and replace the entire facility's low voltage electrical distribution system with minimal facility downtime.

## Customer Results

MAVERICK provided a complete electrical power system design including new equipment specifications, contractor specifications and an installation / cutover plan. Project approvals were quickly received from local government regulators and the serving utility. The main incoming switchgear was replaced during a 48-hour electrical utility outage.



## Application Description

The electrical power system replacement included the main 4000 amp incoming low voltage switchgear, motor control centers, switchboards and panel boards.

The MAVERICK team documented the existing power distribution system as the existing documentation was incorrect and incomplete.

MAVERICK designed a new power distribution system, including an upgrade to a high resistance grounded system.

Specifications were created for main incoming switchgear, switchboards, panel boards and motor control centers.

The MAVERICK team issued specifications to bidders and reviewed proposed electrical equipment for conformance to specifications.

MAVERICK then created contractor installation specifications and the installation plan. The installation plan required the replacement of the existing power distribution system with minimal plant outages and shutdowns. In order to accomplish this, the plan included a contractor work sequence to replace the balance of the electrical power system without any additional downtime.

So the customer could obtain building and construction permits in the highly regulated environment, the installation package included PE (professional engineer) stamped drawings.

The MAVERICK team provided coordination with the utility as part of the upgrade to a high resistance grounding system.

The design included circuit breaker settings to ensure the system was properly coordinated and maintained minimal arc flash values.

The main incoming switchgear was replaced during a 48-hour electrical utility outage.

### The MAVERICK Difference

MAVERICK's ability to provide a one-stop shop for electrical design and controls to our midstream customers minimizes delays and errors that can come with two or more firms executing complementary scopes of work. Our proven methodology ensures the project work product is not only timely, but of the highest quality and completeness.



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