



# Cobblestone Fruit Company Microgrid



## Project Overview

A 4+ MW pilot project microgrid in California's central Valley, one of the largest agricultural regions in the world, could serve as a template for multiple future microgrids for Pacific Gas & Electric (PG&E), whose service territory has been hit with a series of wildfires and related outages over the past five years. The project is an example of Encorp's "microgrid for the masses" offering, which is a clear alternative to solutions provided by large multi-national companies seeking to monopolize the microgrid market with pre-configured and expensive bundled asset packages.

## Challenge

Located in Sanger, California and associated with Kings River Packaging, the Cobblestone Fruit facility processes local and imported produce around the clock for large, big box retailers. The area has often faced small but frequent power outages, which would wreak havoc with the automated plant now under construction. PG&E's plans to bolster local distribution feeders will likely take 5 years or more. Today, there is also no natural gas supply available from PG&E. The utility also cannot provide electricity for six months every year.

Could a microgrid offer a temporary solution to address limits on power availability in spring and fall — when agricultural demands spike — but not strand these investments by extracting value through exports?

## Solution

Cobblestone Fruit vetted multiple firms offering off balance sheet financing approaches to provide resilient power service for their new \$120M+, 220,000 square foot packaging facility.

The company received proposals ranging from \$3 million to \$13 million in off balance sheet financing, but the facility owners did not find any of these microgrid offers appealing. How could the client leverage its existing 2 MW of solar PV with other new resources to boost reliability while reducing costs through fuel savings?

In stepped Encorp with a customized solution that cost approximately \$500,000 and which included twelve 150 kW propane-fired back-up generators. The facility owners did not want to invest \$1 million into a battery, so a fleet of smaller generators were integrated with the solar PV instead. Since the solar system was not designed to work in conjunction with the fleet of generators, Encorp also engineered a solution to optimize this low cost but fully functional microgrid.

This collaboration is yielding an Engineering, Procurement and Construction (EPC) model that includes a few operational innovations that address the microgrid's ability to optimize tariffs as well as assets. The microgrid relies upon a day ahead schedule looking at power demand 24 hours in advance to commit capacity for export or on-site asset optimization. PG&E is considering this project as a potential template for their large agricultural constituency to manage ever-growing load requirements in this grid constrained region of California.