

It's unusual to have a **large project go as smoothly** as this one has gone. **RCM has done a great job** with the design, equipment, paperwork and **getting everything up and running..**

~ Larry Castelanelli  
Castelanelli Brothers Dairy

### Project At-a-Glance

**Built:** 2004

**Generation:** 300kW

**Herdsiz**e: More than 1,500  
cows

**Design:** Covered Lagoon



**RCM**  
DIGESTERS

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### Case Study:

## Electricity Costs Are No Longer Milking this Dairy

*Castelanelli Dairy, Lodi, CA*

### Situation

Larry Castelanelli's dairy milks more than 1,500 cows each day. This average-sized dairy had two main concerns: the cost of electricity and mitigating challenges associated with managing the large amount of manure produced by the cows.

### Challenge

Castelanelli was impressed by the Covered Lagoon system presented by RCM Digesters. The biodigester had the potential to eliminate their monthly electricity bills, which typically ran into the thousands of dollars. However, the dairy was daunted by the amount of investment required.

### Solution

On the Castelanellis' behalf, RCM applied for grants from USDA Rural Development and the California Energy Commission via Western United Resources Development. A grant was also submitted to PG&E's Self Generation Incentive Program. Grant money in hand, construction began.

### Successes

High utility bills are now a thing of the past. The Covered Lagoon system includes a generator that runs on the methane from cow manure. The anaerobic digester works by capturing biogas from decomposing manure, which is then burned to produce electricity. "These digesters are ideal for the average California dairy. They offset monthly electricity bills and they biologically stabilize a sometimes problematic byproduct," states Mark Moser, founder of RCM Digesters.