

## Adding Up to Savings

SPG installed the Monteiros' system in February 2011. The panels produce the guaranteed 1.7 million kWh annually. That's enough clean energy to offset 75% of the electricity used at Lakeside—an amount equivalent to powering up to 157 typical American homes annually. The system powers the entire milking barn, lights and fans, manure separation equipment, and irrigation and well pump equipment.

With regular energy costs through PG&E ranging from \$13,000 per month in the winter to as high as \$30,000 per month in the summer at Lakeside, the savings are dramatic.

Still, the Monteiros' system cost \$3.5 million; a typical commercial dairy system can cost upwards of \$2.5 million—a substantial investment by any standard. “This certainly isn't for every dairy operation,” says Irwin. “The Monteiros utilize a lot of electricity. Because of the size of the operation, it becomes cost-effective for them.”

But size and electricity use are only part of the savings equation. The Monteiros also were able to take advantage of a federal government grant that paid 30% of the system's cost within 30 days of installation. Through his tailored 10-year finance plan with Rabobank, Mike was able to apply that grant retroactively as a down payment, which eliminated any up-front cost.

Rabobank also developed a payment structure that takes into account Lakeside's month-to-month electricity production. In the summer, when Lakeside uses and produces the most electricity and receives the most electric-bill savings, the dairy's payment will be higher than in the winter months when electricity production and savings go down.

The Monteiros also receive additional benefits from the California Solar Initiative, a state cash-back incentive for home and business owners who install solar systems.

The initiative pays qualifiers an additional 15 cents per kWh, which for



**1** Mike keeps watch on Lakeside's dairy facility, which sits on a 1,200-acre farm **(2)** near Hanford, Calif. **3** Four acres of panels produce 1.7 million kilowatt hours a year. **4** Up to 80 cows can “ride” the milking rotary at a time, each sending

Lakeside amounts to an average of about \$21,250 per month for the first five years.

## Cash Positive from the Start

Substantial incentives and an expertly rendered finance plan have made the Monteiros' solar investment cash positive from day one. After the bank loan is paid in full, Mike predicts he'll save \$192,000 per year in electricity costs at Lakeside.

“For Mike, it was always about the numbers,” says Dupre. “It wasn't until a certain point in 2010 where commercial solar, with rebates and incentives, really started to become a great investment. Mike was at the front of the line when that happened.”

The Monteiros' installation has sparked curiosity among others regarding commercial PV. “Since Mike did this,