



# Custom Efficiency

For Complex Projects

## Murakami Produce brings a green philosophy to yellow onions

Working with 35 farmers in Malheur County in eastern Oregon, Murakami Produce Company stores, packs, and ships onions—primarily Spanish onions—as far as the east coast. “During the winter, this valley provides about 40 percent of the country’s onions,” Grant Kitamura, president of Murakami Produce, said proudly.

“It’s important in our business to be greener,” said Grant as he guided a visitor through one of the company’s 20,000-square-foot onion storage sheds. “Our customers want to do business with someone who’s environmentally conscious.”

Grant pointed to a bank of lights overhead that popped on automatically as he and his guest entered the building. “Just changing out our lights and adding motion sensors cut our power usage by almost 150,000 kilowatt-hours (kWh) a year. But that’s nothing compared to what we did with our fans.”

Recently, Murakami Produce undertook an ambitious plant-modernization and energy-saving program in conjunction with Idaho Power, Energy Industries, the U.S. Department of Agriculture’s (USDA) Rural Energy for America Program (REAP), and the Oregon Department of Energy (DOE).

In one phase of the project, Murakami Produce upgraded 871 lights that illuminate more than 225,000 square feet of storage space from conventional T12 technology to more efficient T8 technology. At the same time, Murakami Produce installed high-efficiency motors, variable frequency drives (VFDs), and automatic controls on the ventilation fans used to cool, cure, and ventilate the onions during storage.

“As we drop the temperature, and the onions get close to dormancy,” Grant explained, “we need to reduce the airflow across them. Before, our fans only had one speed, so we had to turn some fans off and leave others on. The VFDs allow us to reduce the speed on each fan. That’s a lot more efficient from a power-usage standpoint.”



### The difference between T8 and T12 fluorescent light bulbs

As Murakami Produce demonstrated, one of the simplest, least expensive ways to reduce energy consumption is by replacing standard T12 technology-based fluorescent lighting with more efficient T8-based bulbs. The following chart illustrates the advantages of T8 bulbs. *Continued on back.*



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– Grant Kitamura  
President, Murakami Produce  
Ontario, Oregon

## The savings

Murakami achieved its goal of going greener—it reduced its electricity usage by more than 1,800,000 kWh annually, which can power 140 average-sized homes in Idaho Power’s service territory. This cut Murakami Produce’s annual power bill by more than \$100,000. Combined costs of the ventilation and lighting projects were \$974,000, of which Idaho Power covered \$225,000 through its Custom Efficiency incentive program. “We probably couldn’t have justified the payback without the Idaho Power program,” Grant noted.

Project	Project Cost	Idaho Power Rebate	Savings (kWh/year)	Annual Savings	Payback in Months*
Ventilation upgrade	\$875,852	\$207,200	1,726,669	\$94,967	approx. 24
Lighting upgrade	98,148	17,955	149,622	30,590	approx. 24
<b>Total</b>	<b>\$974,000</b>	<b>\$225,155</b>	<b>1,876,291</b>	<b>\$125,557</b>	<b>approx. 24</b>

\*Calculated including cash incentives and tax credits received from Idaho Power, the USDA REAP, and the Oregon DOE.

## Uncommon savings are quite common

Saving energy has always been a smart business decision. Now, Idaho Power makes it attainable. Our complete suite of energy efficiency programs provides attractive incentives to commercial and industrial customers who want to reduce their utility costs.

- The **Custom Efficiency** program offers substantial rebates to large commercial and industrial customers who invest energy-saving improvements in their facilities.
- **Easy Upgrades** provides incentives of up to \$100,000 when companies retrofit their infrastructures with energy-saving upgrades.
- The **Building Efficiency** program pays up to \$100,000 *per project* to mitigate the additional capital costs when companies upgrade their lighting, cooling, controls, and building shells to more efficient components.
- **FlexPeak Management** offers commercial and industrial customers incentives in the form of recurring payments for reducing their power consumption during times of overall peak demand.

*The above success story was produced in cooperation with, and approval from, the Murakami Produce Company.*



## The difference between T8 and T12 fluorescent light bulbs (continued)

Attribute	T8 Technology	T12 Technology
Size	1 inch in diameter	1½ inches in diameter
Energy usage	32 watts	40 watts
Light output	2,600 lumens	2,520 lumens
After 7,000 hours of use	10 percent of brightness lost	20 percent of brightness lost
Life span	Up to 50,000 hours	Up to 34,000 hours
Availability	Readily available	Being phased out in favor of more efficient T8 technology

## How much can your company save?

For more information about Idaho Power’s energy efficiency incentive programs, go to [www.idahopower.com/business](http://www.idahopower.com/business) or call us at 208-388-5624. We’ll show how you can join smart companies like Murakami Produce, saving energy and money.

