

Energy Efficiency in Business

Banks Hardwoods, Inc. Reaps the Benefits of Energy-saving Projects



Energy Provider: Midwest Energy Cooperative

Project Location: White Pigeon

Saving Energy = Cost Savings

→ Saved 256,000 kWh/year, or \$24,000 in energy costs

- Replaced HID light fixtures
- Installed VFDs on four boiler fan motors

ACTION

Energy-saving lighting and variable speed drives were implemented to improve equipment and workspace efficiency

INCENTIVE

\$17,160 in Energy Optimization Program rebates

RESULTS

Light fixtures used less energy, while kilns and boilers consumed energy at a rate consistent with demand

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COMPANY NAME:
Banks Hardwoods, Inc.

ENERGY-SAVING ACTIONS:

- Replaced high-bay high-intensity discharge (HID) light fixtures with T8 fluorescent fixtures
- Installed variable frequency drives (VFDs) on four boiler fan motors
- Added VFDs on circulation fan motors for six kilns

RESULTS:

- 256,000 kWh/year savings
- Saved \$24,000 in energy costs per year
- Received \$17,160 in Energy Optimization Program rebates

Banks Hardwoods, Inc.—headquartered in White Pigeon, Mich., with additional facilities in Newberry, Mich. and Menomonie, Wisc.—is a supplier of sustainable quality hardwood, shipping 65 million board feet annually from its 28 drying kilns to customers throughout the Midwest. Like most small to medium-sized businesses, Banks Hardwoods, Inc. is always on the lookout for ways to improve energy efficiency and cost-effectiveness. Addressing energy waste proved to be a viable way to cut costs without cutting jobs.

"Energy use is our largest variable expense after employee wages. We needed to be more efficient with our variable costs so we wouldn't be negatively affected during the down economy. Becoming more energy efficient also aligns with our other sustainable business practices, such as utilizing wind energy credits and selecting sustainable timber for our product lines."

- Jim Clarke, Chief Financial Officer at Banks Hardwoods, Inc.

Since 2010, Banks Hardwoods, Inc. has implemented three major energy efficiency projects through the Energy Optimization Program offered by Midwest Energy Cooperative. Twelve electricity providers throughout Michigan offer Energy Optimization Program rebates for residents, businesses, and farms. See all participating utilities at michigan-energy.org.

Thanks to the Energy Optimization Program, Banks Hardwoods, Inc. now saves 256,000 kilowatt-hours of electricity—or, \$24,000 in energy costs—each year!

PROJECT DETAILS

Banks Hardwoods, Inc. selected projects that would have the most significant impact on their organization's expenses. First, they replaced 18 high-bay HID light fixtures with six-lamp T8 fluorescent fixtures. Next, their kiln fan controls were upgraded with

variable speed drives. This simple step not only improved energy efficiency, but also provided a higher quality wood drying process. Finally, combustion draft fans on one of Banks Hardwoods, Inc.'s wood-fired boilers were outfitted with variable speed drives to allow the fans to run at a rate consistent with demand. In other words, fans no longer run unnecessarily at full speed all of the time.

"The energy savings from these projects have substantially exceeded our expectations. We are saving 25 to 30 percent on energy costs associated with the project work areas, so we are very pleased."

- Jim Clarke

LOOKING AHEAD

Now that Banks Hardwoods, Inc. has seen a significant return on investment from its energy-saving projects, they plan to make additional upgrades. This year, three energy efficiency projects are underway. They will add variable speed drives to seven more wood-drying kilns and another boiler. Additionally, occupancy sensors to be installed throughout the plant will automatically shut off lights if no one is in a particular area. Banks Hardwoods, Inc. is also experimenting with replacing outdoor HID light fixtures with light-emitting diode (LED) fixtures.

Banks Hardwoods, Inc. also intends to improve the energy efficiency of their two satellite facilities, most likely starting with lighting retrofits at the Newberry plant—a member of Cloverland Electric Cooperative. They are also considering adding variable controls to their dust collection system in the mill room, which would allow the system to slow down based on the equipment that is operating at any given time.

CLAIM YOUR REWARD

To learn more about the energy-saving options available through your electric utility's Energy Optimization Program, call **877.296.4319** or visit michigan-energy.org.