



# VFDs + Lighting

BETTER LIGHTING, LOWER ELECTRIC BILLS & REDUCED EMISSIONS

## CASE STUDY

### Objectives:

- Reduce electricity usage and costs
- Maintain profitability, enhance consumer value, and minimize environmental impact while opening the new shop in Portland

### Strategies:

Moody's worked closely with Efficiency Maine to select the most energy-efficient lighting, equipment and processes before building the new Portland shop. The team identified lighting and VFD motors as the key sources of savings.

### The Plan:

- Installed state-of-the-art spraybooth ovens with eight modes of operation instead of the usual three. Through the use of programmable logic controlled VFDs, each mode allows for variable air flow rates. Shorter "bake cycles" save on electricity and labor costs.
- Highly efficient T5 fluorescent lighting delivers the candlepower required with one-third fewer fixtures.

## Moody's Collision Centers: where saving energy helps fuel growth

Repainting cars can use a lot of energy for lighting, spraying and drying. And that can take a toll on both the bottom line and the environment. That's why Moody's Collision Centers has worked with Efficiency Maine since 2003 to maximize energy efficiency. The newest Moody's shop, in Portland, uses highly efficient T5 lights and Variable Frequency Drive (VFD) motors to power the air exchangers, which move a massive 21,000 cubic feet per minute, in its two spraybooth ovens.

Energy-efficiency measures like these have helped Moody's cut its electric bills by 35%. With incentives from Efficiency Maine, the new Portland construction project will pay back in just one year!

*"There's a perception that environmental measures increase costs. But we find that conserving energy supports our growth: the less electricity we waste, the more money we have to expand our operations. Working with Efficiency Maine during our expansions throughout this decade has given us a competitive edge, while reducing our impact on the planet."*

*-Shawn Moody, President  
Moody's Collision Centers*

### Estimated Annual Savings

Electricity.....\$15,420  
Labor.....\$3,250



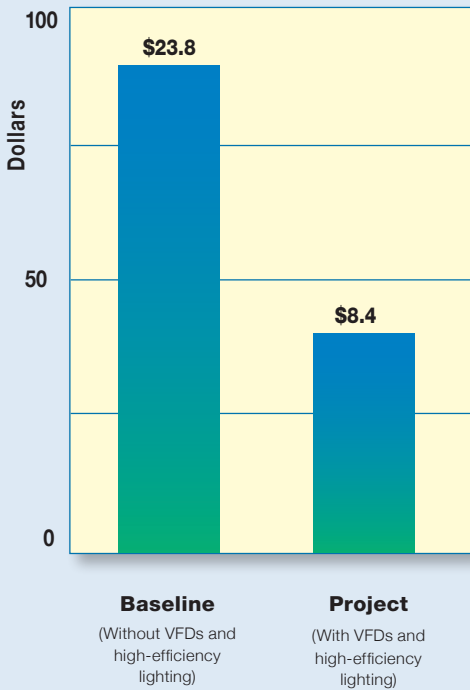
Leading the Way to a Brighter Future

efficiencymaine.com  
866-376-2463

## Results:

Moody's efficiency upgrades reduced electricity costs by 35%, saving approximately \$75,000 over five years, while supporting the company's goal to reduce environmental impacts.

**Estimated Annual Electricity Costs (\$000s)**



Leading the Way to a Brighter Future

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Efficiency Maine is a statewide effort to promote the more efficient use of electricity, help Maine residents and businesses reduce energy costs, and improve Maine's environment.



## Financial Analysis

Total project costs.....	\$162,723
Incremental costs for energy-efficient equipment.....	\$51,105
Incentives from Efficiency Maine.....	\$33,243
Estimated annual reduction in electricity costs.....	\$15,420*
Estimated annual labor savings.....	\$3,250*
Simple payback.....	One year

\* Electrical and labor cost savings are estimated based on industry standards.

## Project Team

- Moody's Collision Centers
- Efficiency Maine
- DL Thurrott, Qualified Partner
- Mancini Electric, Qualified Partner
- USI Italia, Qualified Partner

