# Slamming the Door on Energy Loss

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From workplace safety to cost-containment and productivity concerns, today's facilities managers have a lot on their plates. Fortunately, there are some areas of plant operations in which managers can address all of these issues, including the one that has traditionally been among the most problematic — the loading dock.

**The Problem**

In today's competitive global economy, loading docks are expected to move more materials than ever before. Because of that, docks are busier than ever before — and generally larger, as well. These trends present challenges from both a safety and energy-efficiency standpoint. With more shipments going in and out, dock doors are opened more frequently, allowing expensive heated or cooled air to get out, and potentially hazardous elements — like wind, rain, snow and ice — to get in. While slippery, wet or uncomfortably cold conditions can create safety concerns, they can also sap worker morale, both of which hamper productivity.

**The Solution**

There are a number of ways to simultaneously make loading docks and surrounding facilities more energy efficient and more comfortable for employees — and save tens and thousands of dollars a year in energy costs and lost productivity in the process.

Here are a few suggestions:

1. **Tighten the seal**. Poorly sealed openings on the dock are perfect passageways for energy losses. Tractor trailers leave gaps on either side of

the dock while they're being serviced. The gaps are significant enough to easily allow unwanted air to flow in and conditioned air to flow out. Also, water can get into the dock, and produces unsafe, uncomfortable conditions resulting in injuries and product damage. By installing modern dock seals and shelters, these gaps can be closed and the elements blocked out.

2. **Don't forget about the dock's fourth side.** Dock seals and shelters are used to seal three sides of the opening at the dock. However, energy also escapes through a fourth side of the dock, the underside, a place where the dock leveler, trailer, and dock seal or shelter all meet at the bottom of the door opening. Most warehouses do not consider sealing the underside of the dock opening. By installing under-leveler seals, this overlooked area can be closed to prevent energy loss.
3. **Install high-volume/low speed (HVLS) fans to move air**. Everyone knows that warm air rises … which may mean your facility's HVAC system is feet just below the ceiling . HVLS fans can move oor and into more areas require less energy than ows for a more consistent o worker comfort, this will S fan can reduce annual percent, depending on the

4. und a loading dock can levelers, the overhead when a loading dock is not ntrol over interior

**Upgrade to innovative door technology.** An industrial door's open-and-close time (cycle time) and seal tightness are both more important factors in its energy efficiency than its R value. Doors with low-cycle time allow for air infiltration and potentially high energy loss. By installing high-speed doors, people and equipment are able to move through door openings quickly, reducing energy loss. Some technically advanced high-speed, roll-up doors can operate at up to 100 inches per second.

6. **Go vertical.** Some companies use vertical-storing dock levelers to enhance a more energy-efficient dock. The leveler allows overhead dock doors to seal tightly to the pit floor when a semi trailer isn't present.
7. **Weighted, rain-diverting header seals.** Water that gets into the dock produces an uncomfortable and unsafe environment. It also can result in product damage. The problem can be addressed effectively with rain-diverting header seals. The key is to choose one that handles tall and short trailers alike, delivers the right degree of gravity-based pressure where needed and withstands repeated punishment by trailers over time.

Gaining control of energy costs is a matter of planning and executing. With energy prices expected to rise, it's time to take control of the loading dock by improving the environmental conditions at the dock and in the facility.

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