



Warehouse Facility Improvement Best Practices Checklist

Use the following checklist of best practices to identify opportunities, assign responsibility and track progress toward goals at your facility. Please note that each warehouse facility is unique; therefore, this checklist is only meant to be a guide. Best practices change depending on warehouse location, refrigeration capabilities, automation, goods stored, and many other factors. Find the opportunities that make the most sense for your facility. For more information on benchmarking and energy management in warehouse space, visit energystar.gov/buildings.

| Current ENERGY STAR score = | | Target ENERGY STAR Score = | | | |
|---|---------------------|----------------------------|----------------------------|------------------------|-------|
| Best Practice Measure | Opportunity Exists? | Who is Responsible? | Target Date for Completion | Actual Completion Date | Notes |
| LOW- AND NO- COST OPPORTUNITIES | | | | | |
| Consider de-lamping where lighting power density is higher than needed | | | | | |
| Implement a lighting scheduling strategy or review existing strategy for potential improvements | | | | | |
| Implement a routine lighting maintenance schedule, including cleaning fixtures to reduce degradation of lighting quality | | | | | |
| Replace or repair caulking/weather stripping around doors, windows, and other openings to the outside of the building | | | | | |
| Ensure regular maintenance of HVAC systems, including replacement of filters | | | | | |
| Review temperature setpoints and make seasonal adjustments | | | | | |
| Control outside air intake and avoid heating/cooling outside air when the building is unoccupied | | | | | |
| Ensure that exhaust fans are shut off when the building is unoccupied | | | | | |
| Confirm that bay doors are closed when not in use. | | | | | |
| Program defrost cycle to run when needed, rather than relying on timers | | | | | |
| LIGHTING | | | | | |
| Replace metal halide and/or T12 fluorescent lighting with T5 or Super T8 linear fluorescent fixtures and high-efficiency ballasts | | | | | |
| If metal halide lighting is used (e.g., unconditioned warehouses with extreme temperatures), emphasize the use of ceramic metal halide bulbs with electronic ballasts | | | | | |
| Use LED lamps for parking lot, loading dock, security, and exit signs. | | | | | |
| Install occupancy sensors to limit illumination of unoccupied areas | | | | | |
| Install controls to allow dimming or bi-level switching of lights | | | | | |
| Install photosensors to control outdoor lighting | | | | | |
| Investigate opportunities for skylighting to reduce artificial lighting requirements | | | | | |

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|--|---------------------|---------------------|----------------------------|------------------------|-------|
| BUILDING ENVELOPE | | | | | |
| Install dock seals or dock shelters to reduce outside air infiltration | | | | | |
| Insulate doors to the outside | | | | | |
| Ensure that wall and roof insulation is appropriate for local climate | | | | | |
| Install ENERGY STAR qualified roofing products or explore other "cool roof" strategies | | | | | |
| Consider window placement to allow passive solar heating (during new construction) | | | | | |
| SPACE CONDITIONING | | | | | |
| Install economizer controls to regulate intake of outdoor air based on temperature | | | | | |
| Condition office and warehouse space separately. In warehouse, use radiant heating where staff are most commonly working, instead of heating the entire warehouse to a constant temperature | | | | | |
| Install destratification fans or diffusers to circulate conditioned air and/or move warmer air downward during heating season | | | | | |
| Use natural ventilation to let warmer air escape during the cooling season | | | | | |
| Recover exhaust heat from mechanical equipment to supplement space heating | | | | | |
| Install ENERGY STAR qualified HVAC equipment and variable frequency drives. When installing new equipment, ensure that the system is not over-sized for the building's heating and cooling needs (especially if prior efficiency measures have been implemented) | | | | | |
| For packaged rooftop units, consider retrofitting with advanced controllers or even replacing with new, high-efficiency models. | | | | | |
| Consider demand ventilation strategies, such as the use of CO sensors to control ventilation fans | | | | | |
| REFRIGERATION | | | | | |
| Ensure appropriate insulation of refrigerators and freezers | | | | | |
| Use variable frequency drives and high-efficiency motors on compressors and evaporator fans | | | | | |
| Recover waste heat from condenser coils to heat domestic hot water | | | | | |
| MATERIALS HANDLING | | | | | |
| Install conveyor system controls and run only when needed | | | | | |
| Install high-efficiency motors for conveyor systems | | | | | |