- ✓ Tune up the HVAC control system.
- ✓ Consider installing a building automation system (BAS) or energy management system (EMS) or restoring an out-of-service one.
- ✓ Balance the system to minimize flows and reduce blower/fan/pump power requirements.
- ✓ Eliminate or reduce reheat whenever possible.
- ✓ Use appropriate HVAC thermostat setback.
- ✓ Use morning pre-cooling in summer and pre-heating in winter (i.e. -- before electrical peak hours).
- ✓ Use building thermal lag to minimize HVAC equipment operating time.
- ✓ In winter during unoccupied periods, allow temperatures to fall as low as possible without freezing water lines or damaging stored materials.
- ✓ In summer during unoccupied periods, allow temperatures to rise as high as possible without damaging stored materials.
- ✓ Improve control and utilization of outside air.
- ✓ Use air-to-air heat exchangers to reduce energy requirements for heating and cooling of outside air.
- ✓ Reduce HVAC system operating hours (e.g. -- night, weekend).
- ✓ Optimize ventilation.
- ✓ Ventilate only when necessary. To allow some areas to be shut down when unoccupied, install dedicated HVAC systems on continuous loads (e.g. -- computer rooms).
- ✓ Provide dedicated outside air supply to kitchens, cleaning rooms, combustion equipment, etc. to avoid excessive exhausting of conditioned air.
- ✓ Use evaporative cooling in dry climates.
- ✓ Reduce humidification or dehumidification during unoccupied periods.
- ✓ Use atomization rather than steam for humidification where possible.
- ✓ Clean HVAC unit coils periodically and comb mashed fins.
- ✓ Upgrade filter banks to reduce pressure drop and thus lower fan power requirements.
- ✓ Check HVAC filters on a schedule (at least monthly) and clean/change if appropriate.
- ✓ Check pneumatic controls air compressors for proper operation, cycling, and maintenance.

- ✓ Isolate air conditioned loading dock areas and cool storage areas using high-speed doors or clear PVC strip curtains.
- ✓ Install ceiling fans to minimize thermal stratification in high-bay areas.
- ✓ Relocate air diffusers to optimum heights in areas with high ceilings.
- ✓ Consider reducing ceiling heights.
- ✓ Eliminate obstructions in front of radiators, baseboard heaters, etc.
- ✓ Check reflectors on infrared heaters for cleanliness and proper beam direction.
- ✓ Use professionally-designed industrial ventilation hoods for dust and vapor control.
- ✓ Use local infrared heat for personnel rather than heating the entire area.
- ✓ Use spot cooling and heating (e.g. -- use ceiling fans for personnel rather than cooling the entire area).
- ✓ Purchase only high-efficiency models for HVAC window units.
- ✓ Put HVAC window units on timer control.
- ✓ Don't oversize cooling units. (Oversized units will "short cycle" which results in poor humidity control.)
- ✓ Install multi-fueling capability and run with the cheapest fuel available at the time.
- ✓ Consider dedicated make-up air for exhaust hoods. (Why exhaust the air conditioning or heat if you don't need to?)
- ✓ Minimize HVAC fan speeds.
- ✓ Consider desiccant drying of outside air to reduce cooling requirements in humid climates.
- ✓ Consider ground source heat pumps.
- ✓ Seal leaky HVAC ductwork.
- ✓ Seal all leaks around coils.
- ✓ Repair loose or damaged flexible connections (including those under air handling units).
- ✓ Eliminate simultaneous heating and cooling during seasonal transition periods.
- ✓ Zone HVAC air and water systems to minimize energy use.
- ✓ Inspect, clean, lubricate, and adjust damper blades and linkages.
- ✓ Establish an HVAC efficiency-maintenance program. Start with an energy audit and follow-up, then make an HVAC efficiency-maintenance program a part of your continuous energy management program.