

## ■ Domestic Hot Water Checklist

- Replace Existing DHW System with an On-Demand Water Heater**  
Tankless natural gas or electric water heaters typically result in energy savings on the order of 8% to 25%. Tankless water heaters eliminate standby energy losses associated with hot water storage tanks.
- Lower the DHW Temperature Setpoint**  
Reducing the DHW setpoint temperature reduces standby energy losses and the total amount of energy supplied to the DHW system. A lower temperature limit should be set at 120°F to ensure that all waterborne infections are killed.
- Replace Existing DHW System with Heat Pump Water Heaters**  
Heat pump water heaters reduce energy use by 40% to 60% compared to a standard electric resistance heater, with payback periods typically less than three years. Heat pump water heaters need to be installed in applications where the cold air discharged from the evaporator can be exhausted from the space or used to cool the facility (well suited for hot climates).
- Install Additional Tank Insulation**  
Blanket insulation can sometimes be applied to existing DHW tanks, reducing standby energy losses.
- Insulate Hot Water Pipes**  
Pipe insulation reduces heat loss through distribution pipes and increases overall system efficiency. Any heated pipe with exterior temperatures over 120°F should be insulated. Energy savings can be calculated with 3E Plus software ([www.pipeinsulation.org](http://www.pipeinsulation.org))