

Energy Conservation Measures Opportunity Checklist

Building:

Date:

Energy Conservation Opportunity	Status
Stage 1 – Lighting (“Green Lights”)	
1. Fluorescent light retrofit (high efficiency lamps and ballasts)	
2. Occupancy sensors in rest rooms, other areas	
3. Replace incandescent with higher efficiency lamps	
4. Replace 8-ft fluorescent w/ dual 4-ft. fixtures	
Stage 2 – Mechanical System Tune-Up	
Stage 3 – Load Reduction (Building Envelope)	
1. Windows	
2. Window Films	
3. Roof	
4. Entryways / Weather Stripping	
Stage 4 – HVAC Distribution System	
A. Fan Systems	
1. Fan System Downsizing	
2. Energy-Efficient Drives	
3. Variable-Air-Volume System	
4. Eliminate Duct System Restrictions	
5. Rezone Building Areas	
B. Pumping Systems (Water Side)	
1. Downsizing Pumps	
2. Variable-Speed Drives	
3. Convert Single-Loop to Two-Loop System	
C. Fan System Controls	
1. Optimal Start Stop Control	
2. Mixed Air Temperature Reset	
3. Supply Air Temperature Reset	
4. Fan Tracking of VAV Systems	
5. Nightly Temperature Set-Back	
6. Equipment Scheduling	
7. Motor Replacement with High Efficiency	
D. Individual Room Control	
1. Set Cooling Set Point Up During Summer	
2. Set Heating Set Point Down During Winter	
3. Prevent Simultaneous Heating and Cooling of Reheat System	
Stage 5 – HVAC Plant	
A. Chiller Upgrades	
1. Replace R-11 Refrigerant	
2. Retrofit Chiller for Lower Loads	
3. Chiller Replacement	
4. Create Multi-Chiller CHW Loop	

Energy Conservation Measures Opportunity Checklist

Energy Conservation Opportunity	Status
B. Other Cooling Plant Items	
1. Install 2-Way Valves on Chilled Water Coils	
2. Install Variable Speed Drives on Cooling Tower Fan	
3. Meter Cooling Tower Separately for City Water	
4. Lower Condenser Water Temp. to Improve Chiller Efficiency	
5. Add Controls to Optimize Chiller Sequencing	
6. Install Free Cooling for Wintertime A.C.	
7. Spot Cooling in Lieu of Central Chiller	
C. Boiler Upgrades	
1. Retrofit Boiler for Lower Loads	
2. Boiler Replacement	
3. New Burners	
4. Baffle Inserts	
5. Combustion Control	
6. Warm-Weather Controls	
7. Economizers	
8. Condensate Return	
9. Blowdown Heat Recovery	
D. Other Heating Plant Items	
1. Tune Boilers to Achieve Optimal Efficiency	
2. Add Reset to Hot Water Controls	
3. Replace Defective Steam Traps	
4. Replace Defective Valves	
5. Repair/Add Piping Insulation	
6. Small Boiler for Summer Loads	
E. Outdoor Air Control	
1. Low Leakage Dampers	
2. Reduce Minimum Outdoor Air	
3. Increase Outside Air Available for Free Cooling	
4. Reduce Excessive Ventilation	
5. Enthalpy Economizer Control	
6. Reduce Unnecessary Exhaust Air	
7. CO2 Control of Outside Air in Assembly Areas	
F. Coils	
1. Reset Hot / Cold Deck Temperature	
2. Zone Optimization in Reheat Systems	
Additional Items	
A. Fume Hoods	
1. Install Sash Stops and Readjust Exhaust Air	
2. Install Variable Air Volume Control	
B. Energy Star-Rated Office Equipment	

Filename: ECO Building Checklist.doc