

A Quick Guide to Saving Energy and Money with Your HVAC Systems

Maintain Equipment for Best Efficiency

Good maintenance can add years to equipment life and increases efficiency.

- Institute or review maintenance policy:
 - Assign someone to monitor maintenance;
 - Review maintenance with your provider;
 - Change filters as often as recommended;
 - Have professional maintenance done regularly.
- If specific areas tend to be uncomfortable:
 - Ask professionals about moving diffusers or balancing the system to better distribute air.
- So outdoor AC units needn't work as hard:
 - Remove barriers to air flow around the units;
 - Increase outdoor AC unit service during drought and high seed & pollen seasons;
 - Plant shade trees on AC units' west side.

Reduce Use for Greater Savings

Setting a thermostat back 10° to 15° for 8 hours can save 5% to 15% a year on your heating bill.

Reduce use of central heating and AC by using:

- Programmable thermostats (see toolkit);
- Personal & ceiling fans to reduce need for AC;
- Space heaters for individual workstations.

Doing this will affect humidity & temperature.

- Control summer humidity in infrequently-used spaces, especially those below grade:
 - Monitor humidity with a hygrometer.
 - To reduce humidity with the least energy, set programmable thermostat to cool space (thus removing moisture) in the early AM, before outside temperature begins to rise.
 - Consider using a dehumidifier in problem areas to reduce the need to run AC, especially if the AC unit covers a larger area.
- **Organs** (American Institute of Organ Builders)
 - Organs are safe from 40°–100° F.
 - Humidity should stay between 30% & 80%.
 - Lowering the temperature of the space to 40°–55° during the week in winter helps prevent overly-dry conditions.
 - Temperature affects organ tuning, but the tuning will revert back to normal when the temperature returns to original setting.
- **Pianos:**
 - Pianos do best in a fairly consistent environment, so to compensate for high humidity in summer and dryness in winter, install a humidistat (\$500.00 to \$750.00).
 - A floor-length drop cloth can help reduce temperature variations.

Plan for Efficient Upgrades

Purchasing more efficient equipment pays off quickly: the efficiency of HVAC equipment has increased while the cost difference between economy and high efficiency models has fallen. Even with low natural gas prices, paying the difference may take just 4 to 6 years – followed by pure savings. And, with both furnaces and AC units, rebates from utility companies can help offset the extra upfront cost.

Furnaces: Pre-1995 furnaces were 80% efficient. Now a 96%–98% efficient furnace lowers operating costs.

AC Units: 2005 units were 10 SEER. Now, units are 13 to 20 SEER (Seasonal Energy Efficiency Ratio). A 16 SEER AC unit is 14% more efficient than standard 13 SEER.

Replacing Equipment: Factors to Consider

Lifetime cost = upfront + operating costs

Operating costs are a function of the equipment's efficiency & thermostat settings.

How to decide:

- Designate a property committee member to research the options.
- Get unbiased advice from a professional who will not be installing your equipment.

How to Pay:

- Set aside a percent of budget;
- Make this part of a capital campaign;
- Reinvest savings from energy conservation.
- Take out a loan: a higher efficiency unit will pay it back with the energy savings.

The Seventh Day Initiative



Caring for Creation