

Ordered Checklist of Actions and Their Return on Investment

Some actions to make your sanctuary more sustainable are more effective than others. Every dollar invested in your sanctuary will save a certain number of pennies each year, a percentage known as your return on investment (ROI). The higher the ROI, the less time it will take to recover your investment. Starting with projects with high ROIs makes sense because these will give maximum money and energy savings for the money (and effort) you spend.

ACTION	Approximate payback period
LEVEL 1: HIGHEST RETURN ON INVESTMENT	Immediate
GOVERNANCE: Institutional commitment	Immediate
SIGNS: Place on lights, thermostats, doors, windows	Immediate
THERMOSTATS: Adjust for lower energy use	Immediate
HEATING: Hold small meetings in small heated rooms	Immediate
WATER TEMPERATURES: Reduce to 95F	Immediate
GAS PILOT LIGHTS: Turn off in summer	Immediate
ELECTRONICS: Turn off sleep-mode	Immediate
LEVEL 2: HIGHEST RETURN ON INVESTMENT (33% - 200%)	1 – 3 years
AIR LEAKS: Use weather stripping, caulking	1 year ¹
LIGHTING: Install motion sensors	1 year ²
BULBS: Replace incandescents with compact fluorescents (CFLs)	9 months
BULBS: Replace tubular fluorescent T-12 lights with T-8 lights	3 years or less ³
THERMOSTATS: Install and properly site programmable ones	6 months
MAINTENANCE: Regular for boiler and furnace	1 year
WATER: Install faucet flow restrictors	1 year
LIGHTING: Replace bulbs in exit signs with LED's	1 year
LEVEL III: MEDIUM RETURN ON INVESTMENT (10% to 33%)	3 - 10 years
INSULATION: Increase ceiling insulation from R-11 to R-19	5 years ⁴
INSULATION: Increase wall insulation from R-0 to R-11	9 years ⁴
INSULATION: Insulate ducts in unheated areas	9 years ⁴
WATER: Install solar water heating	3 - 4 years
HVAC: Replace gas furnace with an air-to-air heat pump system	
WATER: Install low-flush toilets	
DISHWASHERS & FRIDGES: Replace pre-1993 models with high efficiency Energy Star models	5 years
LEVEL IV: Low Return on Investment (less than 10%)	> 10 years
WATER: Install on-demand water heating on sinks	
HVAC: Replace air-to-air heat pump by a geothermal heat pump	

¹ Assuming 125 watt leakage and \$1.20/therm of natural gas = \$45/yr

² Assuming sensor saves 100 watts, 5 hours/day

³ If lights are used 15 hours/week or more

⁴ In California

ELECTRICITY: install photovoltaic array on the roof	
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