## **Symphony Village Homes – Opportunities for Energy Savings**

<u>Area</u>	<u>ltem</u>	Improvement (Work must be performed by qualified individuals!!)	Cost	Benefit	<u>Notes</u>
General	Thermostats	Install programmable thermostat(s). Set for lowest comfortable temps in winter, and highest comfortable in summer. Set night periods higher in summer and lower in winter for higher savings. In summer, try over-cooling in Early morning to "coast" through part of the day.	Low (\$65-\$85 if Do It Yourself (DIY)	Medium	Be sure thermostat handles heat pump with auxiliary gas furnace. Need 1 thermostat per heat pump. Hdware store or <a href="https://www.energyfederation.org">www.energyfederation.org</a> Honeywell TH6620D-1002/1028, Lux 2110.
	Heating and Cooling	Clean or change air filters regularly to ensure good air flow.	Low	Low- Med	Partially plugged air filters make heat pump work harder to achieve desired temperature.
	Lighting	Turn lights off when not in use	None	Medium	Free savings!!
	Lighting	Switch to high efficiency CFL bulbs. 15W = 65 W conventional. (.300 KWH savings per bulb daily assuming 6 hrs/day/bulb.) Concentrate on lights most often used. LED spot and floodlights becoming available.	Low-Med	Medium	Hardware store, or <a href="https://www.energyfederation.org">www.energyfederation.org</a> , Be sure to get the "color" (daylight, warm, cool, etc) that you prefer. Try one bulb at a time to ensure you're satisfied. www.superbrightleds.com
	Phantom Power	Disconnect chargers, TV sets, cable boxes, etc.	None	Low	Consider grouping these items on power strips, and using the switch on the power strip.
	Ceiling	Add radiant barrier below roofline by attaching to collar ties and rafters. (Reflects 90+%nradiant heat)	\$250-\$350 DIY High if installer	High	Difficult to install because of truss construction. No upkeep. Most benefit during summer.
	Ceiling	Add Reflectix barrier on top of existing blown insulation. Use only perforated/permeable barrier.	\$250-\$350 DIY High if installer	Med -High	Easy to install but loses effectiveness as dust settles on reflective surface.
	Ceiling	Add additional <b>unfaced</b> fiberglass insulation (6"-10") on top of existing blown insulation. Additional blown insulation is an option, but makes future attic work difficult.	Med-High .70/sq ft DIY	High	Original blown insulation tends to settle and lose R value.
	Ceiling	Spray underside of roof with reflective paint			Unclear how well this holds up in long term.
	Ceiling	Add ventilating attic ventilating fan(s) - solar	Med-High	Medium	Reduces attic temp. No electricity cost.
	Ceiling	Add ventilating attic ventilating fan(s) - electric	Med-High	Medium	Reduces attic temp
	Windows	Ensure no drafts/leaks. Insulate with foam and caulk as needed.	Low	Low- Med	Use low rising foam sealant. Latex caulk for trim.
	Windows	Install thermal shades or window quilts. Blocks sun and retains heat in house. Quilts more effective.	High	Medium	www.comfortex.com, www.windowquilt.com, Solar Energy Systems. Shades more decorative
	Windows	Install solar film to block radiant heat from sun. Usually installs direct to glass, or with double-sided tape. Most effective blocking heat from direct sunlight.	Low	Medium	Some sellers claim winter savings also (?). Consider removing in winter to allow direct sun to warm house. 3M and other brands. Lowes or on-line.
	Exterior Doors	Ensure no drafts. Install insulating strips as needed.	Low	Low- Med	Hardware store.

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	Hot Water	Insulate hot water tank and exposed pipes w/Reflectix bubble insulation. Follow install instructions to create an air space between heater and insulation)	Low	Medium	Solar Energy Sytems, Lowes or online. No ongoing cost. Fiberglass insulating jacket is another option.
	Hot Water	Run heater on timer 4-6 hours/day. (limited improvement if heater is insulated as above.)	\$70	Medium	Hardware store or www.energyfederation.com
	Hot water	Reduce temp to 105 F at showers, or a comfortable shower temperature, using 100% hot water.	None	Low - Med	Most heaters have 2 thermostats. Set the upper thermostat for desired temp, and set lower thermostat to a much cooler setting.
	Electric outlets and switches	Install foam insulation pads in all boxes on exterior walls, and interior boxes with drafts. Install "filler" plugs in empty receptacles.	Low. (.10/pad, . 20/plug)	Low - Med	www.energyfederation.org
	Fireplace	Turn off fireplace pilot light during warm weather	None	Low	Instructions came w/fireplace.
Bathrooms	Showers Exhaust fans Lights	Install low flow shower heads if not already Install mechanical timer switch to limit operating time Install reminder decals to turn lights off	Low Low Low	Low Low Low-	Hardware store Hardware store
Kitchen	Refrigerator & Freezer	Semi-annually clean cooling fins.	None	Low	Vacuum cleaner and long brush. (Turn frig off!)
	Refrigerator & Freezer	Insulate exterior with Reflectix. (The appearance takes a little getting-used-to.) Insulate compressor compartment incl coils also. Do not insulate if cooling fins are built into side walls. (ie no visible coils on bottom or rear of unit.)	Low	Low	Reflectix is available in white, but not black. (Can painted with Chrylon spray paint.) Some folks insulate the back and sides, leaving the door untouched.
	Hot Water - Sink	If water temp not sufficient, install local water heater under the sink. Also insulate heater w/Reflectix bubble insulation.	Med	Low	Use a 120 volt 6 gallon mini water heater. Tie to power feeding outlets under counter. Instant heaters difficult because 240 volt service not available near sink.
Home Energy Audit	Entire Home	A professional home energy audit is best way to identify the most cost effective items for your individual situation.	Low	High	Solar Energy Systems 410-758-8178 (nearby in Church Hill, MD)

Several suggestions courtesy of Solar Energy Systems 410-758-8178