



The Florida Solar Energy Center certifies the following list to the Department of Revenue, pursuant to Section 212.08(7)(hh), Florida Statutes.

SOLAR ENERGY SYSTEM COMPONENTS

COLLECTOR: The purpose of a solar collector in thermal applications is to gather radiant energy from the sun and transfer it in the form of heat to a fluid for the purpose of domestic water heating, pool heating, space heating and cooling. A collector may consist of an absorber plate and tubing which may or may not be enclosed in an insulated box with a transparent cover. The collector provides the primary energy input to the system. Solar electric systems considered eligible for the exemption collect the light energy from the sun and convert it to electricity. A solar photovoltaic powered attic fan ventilation system is eligible. A pool blanket is eligible as a "passive" solar collector whether used in conjunction with or independently from an active solar pool system.

TYPICAL MATERIALS: Cover plate - glass, resin - fiberglass, plastic, vinyl; Absorber and tubing - copper, galvanized steel, aluminum, plastic, rubber; Coating - non-selective, moderately selective, and selective; Insulation - polyisocyanurate, homasote, urethane, ductboards, fiberglass; Box - aluminum, galvanized steel, exterior grade wood, molded fiberglass; Photovoltaic Array - photovoltaic modules.

PUMP AND CONTROLS: The equipment which regulates the circulation of the fluid between the storage medium and the collector.

TYPICAL MATERIALS: Pump - bronze, brass, stainless steel, cast iron; Controller - solid state transistorized controller, sensors, timer, snap switches, and photovoltaic modules.

PHOTOVOLTAIC POWER CONDITIONING EQUIPMENT: The equipment which receives the direct current from the photovoltaic array, converts it to alternating current for consumption and/or transfer to the electric utility grid.

TYPICAL MATERIALS: Inverters, transformers, junction boxes, meters, maximum power trackers, dc to dc converters, and charge controllers.

STORAGE UNIT: The equipment which receives thermal energy, or direct current in the case of a solar electric system, and retains it for future use.

TYPICAL MATERIALS: Conventional tank, solar specific tank, tank equipped with heat exchanger, expansion tank, heat storage by phase change material, desiccants, batteries, regulators, mechanical housing and venting.

ACCESSORIES (when used as an integral part of a solar system): Piping, insulation, air vents, relief valves, mixing valves, check valves, gate valves, assorted bolts, nuts, washers and screws, mounting brackets, angle irons and other structural support (other than roof), solder, flux, pitch and pitch pans or other sealant, drain down reservoir, fans, air handling units, air dampers, heat exchangers, heat transfer fluids, convectors, radiators, pool blankets, direct current wiring, and miscellaneous safety equipment required for P.V. applications; for example, blocking and bypass diodes, surge arrestors, disconnect switches, fuse holders, fuses, relays, junction boxes, ground fault detector and/or interrupter, grounding hardware, and utility-interconnection protection equipment.

NOTE: Amount of piping allowable for the exemption is limited to that used in collector construction and the feed and return lines between collector and storage. Piping from the tank to the taps would be required in a conventional system and therefore is not eligible for an exemption. A typical or rule of thumb piping length for feed and return would be a total of 80 to 100 feet. Wiring used in photovoltaic applications considered eligible for the exemption is limited to that wiring which is unique to the system. Therefore, alternating current wiring throughout the structure which would be present without regard to the photovoltaic system is not eligible for the exemption. Tangible personal property in which the solar equipment is integral to the property (such as calculators, patio lights, appliances and novelty items), and where the cost of the solar equipment cannot be or is not separate from the total product cost, is not considered to be a solar energy system.

