



New Smart thermostat utilizes existing hardware/tank and simply allows any panel's power to be fed into the hot water heater system. Based on usage patterns, time of day, weather and user settings controls tank as a low cost solar storage reducing electric/gas consumption. Reduced equipment cost achieved by bypassing need for inverter, grid isolation, battery and other solar equipment by directly powering the immersion heaters. Ease of installation and potential to offset ~20% of a typical household power consumption with \$/kwh costs typical of commercial solar arrays and only ~50% of other homeowner solar options.