

Family Energy Profile: Palm Springs, California

Annual energy cost: \$3,200

Average summer temperature: High: 43°C (110°F) Low: 37°C (100°F)

Average winter temperature: High: 21°C (70°F) Low: 7°C (44°F)

Jackson's family's house uses natural gas for heating and electricity for cooling. Programmable thermostats control both systems. Not long ago they spent a lot of money on installing central air conditioning. Their refrigerator and other appliances are much older, however. Jackson's mother's family is full of contractors, so they will be able to do all the work with no labor costs.

There are some windmills outside of Palm Springs that generate electricity for the local public utility company. Jackson's family is interested in building an individual windmill on their property, but a neighbor said that a windmill in the neighborhood would be an eyesore.

Improvement	Cost of materials (dollars)	Cost to install (dollars)	Annual energy savings (dollars)
Programmable thermostat	70	100	170
Dual-pane wood-frame windows, argon gas (throughout house)	3,000	600	400
Seal windows, doors, ducts	400	230	90
Solar panels (at the home)	20,000	5,000	2,200
Wind power (at the home)	10,000	6,000	1,900
High-efficiency electric heat pump	1,600	230	400
Energy Star gas furnace	3,300	2,400	590
Efficient oil furnace	4,000	2,000	520
High-efficiency central air conditioning	5,500	2,000	90
Energy Star single-room air conditioner	300	100	5
Energy Star electric water heater, tankless	4,500	1,000	1,600
Energy Star gas water heater (includes gas line)	2,000	750	680
Compact fluorescent lights (high-use lights)	96	20	90
Energy Star refrigerator/freezer	1,800	80	10
Energy Star washing machine	900	80	70
Energy Star clothes dryer	800	80	50
Energy Star dishwasher	330	90	20
Shading vegetation and awnings	400	100	50