Scottsdale Solar Energy Trends

City of Scottsdale Green Building Program

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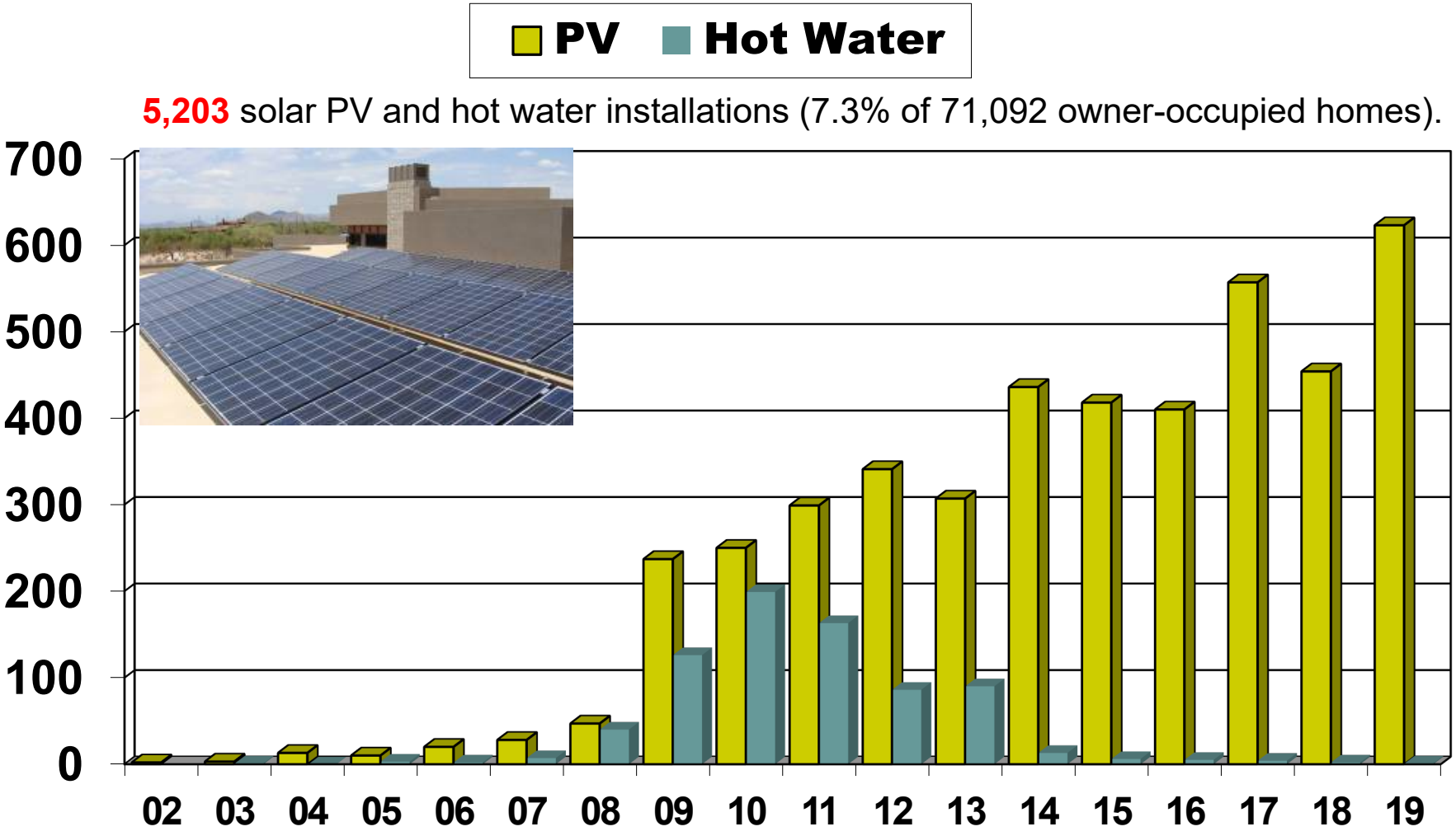
SCOTTSDALE GREEN BUILDING PROGRAM

Solar Permits - 2019

2018 Quarter	Solar Electric PV Permits	Solar Hot Water Permits	Total Permits
1st	129	1	130
2nd	116	0	116
3rd	147	0	147
4th	231	0	231
Total	**623**	**1**	**624**

Source: Scottsdale CDS permit records

Solar Permits 2002 to 2019



Source: Scottsdale CDS permit records

Solar Permits 2002 to 2019

Solar Electric (PV)

4,455 solar PV permits issued

Year	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
No. of Permits	2	3	13	10	20	28	47	237	250	299	341	307	436	418	410	557	454	623

Solar Hot Water

748 solar hot water permits issued

Year	02	03	04	05	06	07	08	09	10	11	12	13	14	15	16	17	18	19
No. of Permits	-	1	0	3	2	7	40	126	199	163	86	90	13	6	5	4	2	1

Note: Many early solar permits (2002 – 2008) were designated as minimum electrical, plumbing or water heater permits.

Source: Scottsdale CDS permit records

On-Site Energy Generation and Environmental Impact Reduction of Solar Electric (PV) Systems

Estimated energy savings and equivalent greenhouse gas reduction resulting from installed roof top solar PV systems in **2019**.

Green Home Energy Measures	Annual Energy Savings and Pollution Reduction	
	Per Home	**Total Savings for 623 solar PV roof tops in 2019**
Average PV system size	**6 kW**	
Average Annual On-Site Energy Generation[1]	10,427 Kilowatt hours (kWh)	6,496,021 Kilowatt hours (kWh)
Average Annual Energy Value[1]	**$1,246**	**$776,258**
Equivalent Annual Greenhouse Gas Reduction[2]	8.1 tons of carbon dioxide ($C0_2$) avoided	5,046.3 tons of carbon dioxide ($C0_2$) avoided
Equivalent Passenger Vehicles removed from Street[2]	1.6 cars	997 cars
Equivalent miles driven by an average passenger vehicle[2]	18,294 miles	11,397,162 miles

Sources: [1]pvwatts.nrel.gov; [2]epa.gov/energy/greenhouse-gas-equivalencies-calculator

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On-Site Energy Generation and Environmental Impact Reduction of Solar Electric (PV) Systems

Estimated energy savings and equivalent greenhouse gas reduction resulting from installed roof top solar PV systems from **2002 to 2019**.

Green Home Energy Measures	Annual Energy Savings and Pollution Reduction	
	Per Home	**Total Savings for 4,455 solar PV roof tops**
Average PV system size	**6 kW**	
Average Annual On-Site Energy Generation[1]	10,427 Kilowatt hours (kWh)	46,452,285 Kilowatt hours (kWh)
Average Annual Energy Value[1]	**$1,246**	**$5,550,930**
Equivalent Annual Greenhouse Gas Reduction[2]	8.1 tons of carbon dioxide ($C0_2$) avoided	36,086 tons of carbon dioxide ($C0_2$) avoided
Equivalent Passenger Vehicles removed from Street[2]	1.6 cars	7,128 cars
Equivalent miles driven by an average passenger vehicle[2]	18,294 miles	81,499,770 miles

Sources: [1]pvwatts.nrel.gov; [2]epa.gov/energy/greenhouse-gas-equivalencies-calculator

[2]epa.gov/energy/greenhouse-gas-equivalencies-calculator