Scottsdale Solar Energy Trends

City of Scottsdale Green Building Program

January 4, 2018

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SCOTTSDALE GREEN BUILDING PROGRAM

Solar Permits - 2017

2016 Quarter	Solar Electric PV Permits	Solar Hot Water Permits	Total Permits
1st	93	1	94
2nd	135	1	136
3rd	185	0	185
4th	144	2	146
Total	**557**	**4**	**561**

Source: Scottsdale CDS permit records

SCOTTSDALE
GREEN BUILDING
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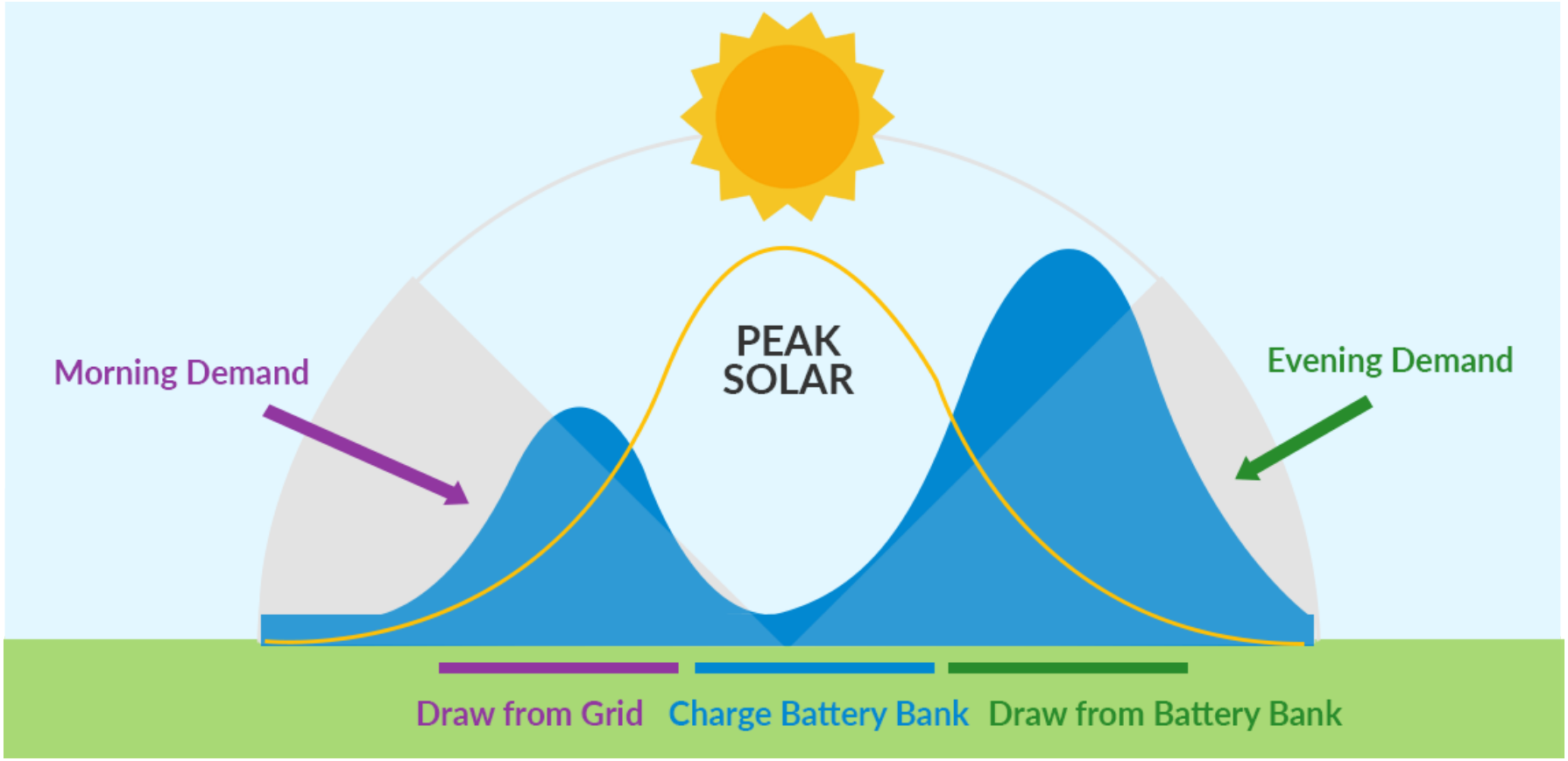
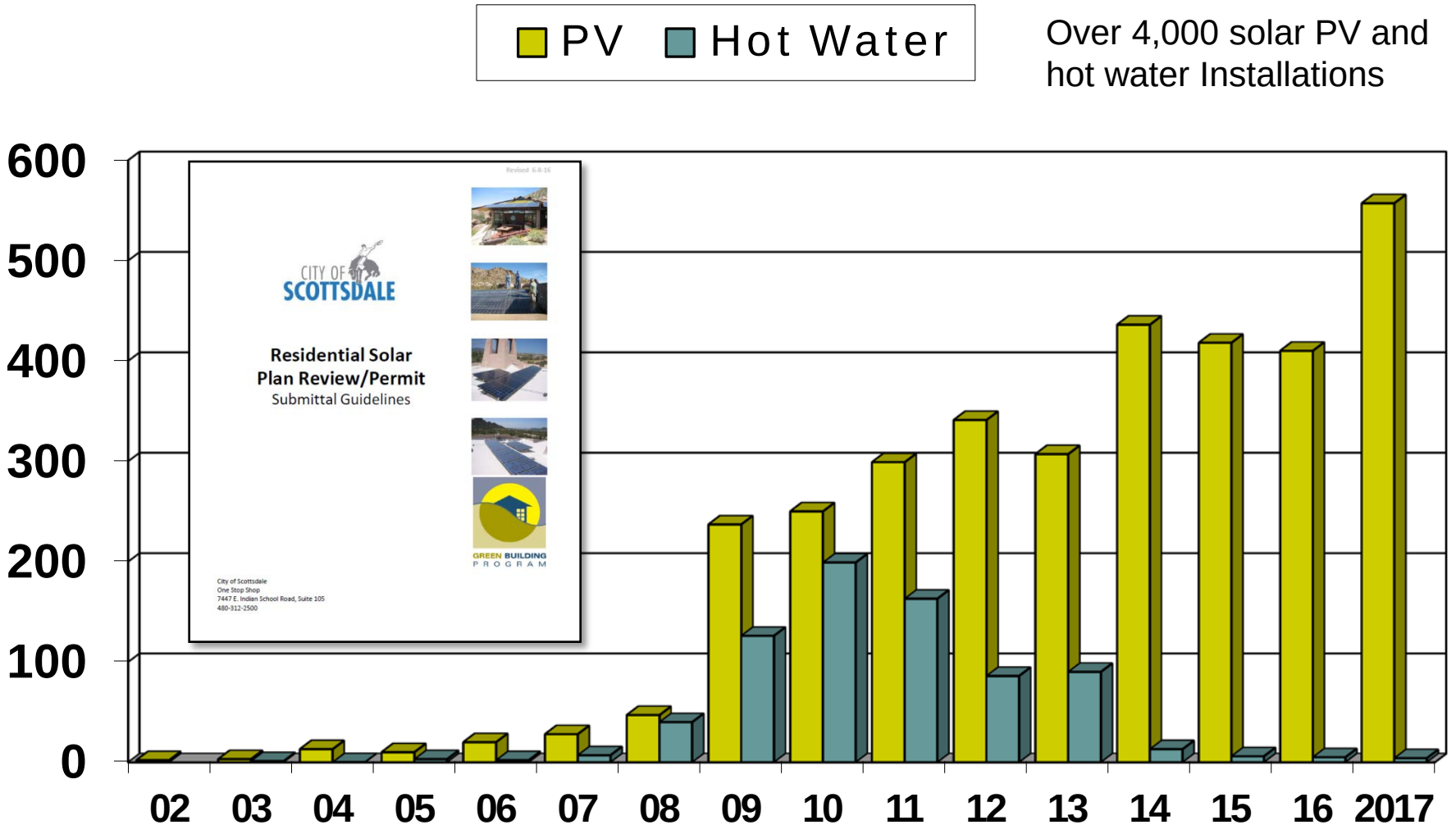
Battery Storage Systems



Source: Let's Go Solar

Solar Permits 2002 to 2017



Over 4,000 solar PV and hot water Installations

Source: Scottsdale CDS permit records

Solar Permits 2002 to 2017

Solar Electric (PV)

3,378 + solar PV permits issued

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

Solar Hot Water

745 + solar hot water permits issued

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

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 **2017**.

Green Home Energy Measures	Annual Energy Savings and Pollution Reduction	
	Per Home	**Total Savings for 557 solar PV roof tops in 2017**
Average PV system size	**6 kW**	
Average Annual On-Site Energy Generation[1]	9,798 Kilowatt hours (kWh)	5,457,486 Kilowatt hours (kWh)
Average Annual Energy Value[1]	**$1,062**	**$591,534**
Equivalent Annual Greenhouse Gas Reduction[2]	7.6 tons of carbon dioxide ($C0_2$) avoided	4,233.2 tons of carbon dioxide ($C0_2$) avoided
Equivalent Passenger Vehicles removed from Street[2]	1.5 cars	836 cars
Equivalent miles driven by an average passenger vehicle[2]	16,503 miles	9,192,171 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 2017**.

Green Home Energy Measures	Annual Energy Savings and Pollution Reduction	
	Per Home	**Total Savings for 3,378 solar PV roof tops**
Average PV system size	**6 kW**	
Average Annual On-Site Energy Generation[1]	9,798 Kilowatt hours (kWh)	33,097,644 Kilowatt hours (kWh)
Average Annual Energy Value[1]	**$1,062**	**$3,587,436**
Equivalent Annual Greenhouse Gas Reduction[2]	7.6 tons of carbon dioxide ($C0_2$) avoided	25,673 tons of carbon dioxide ($C0_2$) avoided
Equivalent Passenger Vehicles removed from Street[2]	1.5 cars	5,067 cars
Equivalent miles driven by an average passenger vehicle[2]	16,503 miles	55,747,134 miles

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

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