



# 2023 Monthly Solar Photovoltaic Module Shipments Report

November 2023

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**Table 1. U.S. photovoltaic industry status, 2023**

Not published monthly

**Table 2. Value and average value of photovoltaic module shipments, 2023**

See Table 3.

**Table 3. Monthly photovoltaic module shipments, 2006–2023**

Year and month	Total shipments (peak kilowatts)	Value (thousand dollars)	Average value (dollars per peak watt)
2006	320,208	\$1,120,728	\$3.50
2007	494,148	\$1,665,279	\$3.37
2008	920,693	\$3,213,219	\$3.49
2009	1,188,879	\$3,316,972	\$2.79
2010	2,644,498	\$5,192,670	\$1.96
2011	3,772,075	\$5,990,348	\$1.59
2012	4,655,005	\$5,341,383	\$1.15
2013	4,984,881	\$3,754,813	\$0.75
2014	6,237,524	\$5,425,418	\$0.87
2015	9,942,978	\$7,014,257	\$0.71
2016	13,451,187	\$9,701,365	\$0.72
2017	10,864,545	\$5,238,043	\$0.48
2018	7,971,622	\$3,563,669	\$0.45
2019	16,372,314	\$6,707,456	\$0.41
2020	21,770,903	\$9,814,022	\$0.34
2021			
January	1,725,069	\$626,886	\$0.36
February	1,728,760	\$582,635	\$0.34
March	2,712,734	\$931,033	\$0.34
April	2,256,057	\$775,325	\$0.34
May	2,307,251	\$763,120	\$0.33
June	2,721,935	\$855,593	\$0.31
July	2,235,951	\$703,053	\$0.31
August	2,222,341	\$731,186	\$0.33
September	2,448,392	\$839,683	\$0.34
October	1,869,932	\$634,490	\$0.34
November	1,844,929	\$655,407	\$0.36
December	2,266,567	\$787,867	\$0.35
2022			
January	1,517,757	\$517,457	\$0.34
February	1,303,063	\$468,724	\$0.36
March	2,239,901	\$891,226	\$0.40
April	1,549,900	\$598,395	\$0.39
May	1,752,018	\$678,064	\$0.39
June	2,946,753	\$1,002,037	\$0.34
July	1,711,151	\$697,418	\$0.41
August	1,936,813	\$819,017	\$0.42
September	2,370,313	\$1,064,117	\$0.45
October	2,216,687	\$907,834	\$0.41
November	2,352,138	\$924,291	\$0.39
December	3,018,474	\$1,213,923	\$0.40
2023			
January	2,100,231	\$729,234	\$0.35
February	2,033,291	\$744,318	\$0.37
March	2,863,845	\$1,069,950	\$0.37
April	1,859,761	\$696,244	\$0.37
May	2,359,006	\$870,099	\$0.37
June	2,729,960	\$988,011	\$0.36
July	3,106,012	\$968,596	\$0.31
August	2,675,659	\$924,543	\$0.35
September	2,868,944	\$984,954	\$0.34

Data source: U.S. Energy Information Administration, Form EIA-63B, *Monthly Photovoltaic Module Shipments Report*

Note: Includes both domestic shipments and exports. Monthly data for 2021–2023 are based on a subset of the largest manufacturers representing about 90% of the previous year's total shipments.

**Table 4. Average value of photovoltaic modules, 2023**

See Table 3.

**Table 5. Source and disposition of photovoltaic cell shipments, 2023**

No longer published as of 2016



**Table 6. Source and disposition of photovoltaic module shipments, 2021–2023**

peak kilowatts

Year	Month	Source		Disposition	
		Imported during reporting month	U.S. shipments and sales to U.S. OEM for resale	Export shipments	Total shipments
<b>2021</b>	January	1,566,541	W	W	1,725,069
	February	1,743,232	W	W	1,728,760
	March	2,188,085	W	W	2,712,734
	April	1,943,557	W	W	2,256,057
	May	2,152,290	W	W	2,307,251
	June	1,691,882	W	W	2,721,935
	July	1,700,530	W	W	2,235,951
	August	2,100,646	W	W	2,222,341
	September	2,048,928	W	W	2,448,392
	October	1,688,708	W	W	1,869,932
	November	1,533,944	W	W	1,844,929
	December	1,558,078	2,138,971	127,597	2,266,567
<b>2022</b>	January	1,343,542	1,433,104	84,654	1,517,757
	February	1,463,157	1,229,785	73,278	1,303,063
	March	1,757,779	2,146,994	92,907	2,239,901
	April	1,191,438	1,512,040	37,860	1,549,900
	May	1,862,885	1,714,376	37,642	1,752,018
	June	2,081,319	2,912,453	34,301	2,946,753
	July	1,905,921	1,692,832	18,319	1,711,151
	August	2,326,973	1,902,779	34,035	1,936,813
	September	2,500,672	2,320,178	50,135	2,370,313
	October	2,429,593	2,187,878	28,810	2,216,687
	November	2,127,001	2,319,938	32,200	2,352,138
	December	2,460,515	2,929,599	88,875	3,018,474
<b>2023</b>	January	2,260,310	W	W	2,100,231
	February	1,831,588	W	W	2,033,291
	March	1,660,881	W	W	2,863,845
	April	1,886,677	W	W	1,859,761
	May	2,078,647	W	W	2,359,006
	June	2,043,603	W	W	2,729,960
	July	2,559,441	W	W	3,106,012
	August	2,320,364	W	W	2,675,659
	September	2,151,582	W	W	2,868,944

Data source: U.S. Energy Information Administration, Form EIA-63B, *Monthly Photovoltaic Module Shipments Report*

Note: Monthly data are based on a subset of the largest manufacturers representing about 90% of the previous year's total shipments.

W=withheld to protect sensitive data. OEM=original equipment manufacturer.

**Table 7. Photovoltaic module import shipments by country, 2023**

Imports at the national level are published in Table 6. Country of origin is not published to protect individual company data.

**Table 8. Destination of photovoltaic module export shipments, 2023**

Exports at national level are published in Table 6. Destination country is not published to protect individual company data.

**Table 9. U.S. photovoltaic module shipments by state or territory, 2023  
peak kilowatts**

State, territory, or district	January		February		March		April		May		June		July		August		September	
	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total
Alabama	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Alaska	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Arizona	37,566	W	W	W	13,468	W	31,129	W	27,901	W	75,991	W	W	W	W	W	W	W
Arkansas	W	W	W	W	W	W	4,176	W	W	W	W	W	W	W	W	W	W	W
California	483,206	W	656,390	W	721,818	W	516,104	W	668,939	W	608,076	W	280,293	W	247,490	W	271,218	W
Colorado	W	W	W	W	91,289	W	47,902	W	W	W	33,200	W	W	W	W	W	W	W
Connecticut	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Delaware	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
District of Columbia	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Florida	W	W	W	W	200,293	W	53,086	W	89,899	W	212,623	W	606,691	W	W	W	385,980	W
Georgia	W	W	W	W	W	W	W	W	8,315	W	W	W	W	W	W	W	W	W
Guam	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Hawaii	W	W	W	W	14,586	W	W	W	W	W	W	W	W	W	W	W	W	W
Idaho	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Illinois	106,058	W	296,069	W	W	W	165,425	W	154,858	W	140,849	W	86,556	W	41,324	W	W	W
Indiana	W	W	W	W	W	W	W	W	W	W	W	W	61,609	W	14,251	W	W	W
Iowa	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Kansas	W	W	W	W	W	W	W	W	W	W	3,459	W	W	W	W	W	W	W
Kentucky	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Louisiana	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Maine	W	W	W	W	W	W	W	W	W	W	5,521	W	W	W	15,909	W	W	W
Maryland	W	W	W	W	W	W	W	W	3,483	W	6,829	W	32,295	W	W	W	W	W
Massachuset ts	42,858	W	W	W	W	W	W	W	W	W	24,303	W	W	W	34,184	W	W	W
Michigan	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Minnesota	W	W	W	W	24,604	W	2,042	W	1,530	W	W	W	W	W	W	W	W	W
Mississippi	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Missouri	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Montana	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Nebraska	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Nevada	21,819	W	W	W	W	W	16,895	W	W	W	8,086	W	W	W	W	W	W	W
New Hampshire	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
New Jersey	34,242	W	62,883	W	74,915	W	W	W	77,353	W	198,236	W	15,486	W	21,513	W	48,842	W

**Table 9. U.S. photovoltaic module shipments by state or territory, 2023  
peak kilowatts**

State, territory, or district	January		February		March		April		May		June		July		August		September	
	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total	Total	Percent age of U.S. total
New Mexico	W	W	W	W	W	W	W	W	W	W	1,227	W	W	W	W	W	W	W
New York	93,535	W	60,047	W	W	W	W	W	61,471	W	W	W	W	W	40,653	W	W	W
North Carolina	W	W	W	W	8,113	W	W	W	W	W	W	W	W	W	W	W	57,948	W
North Dakota	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Ohio	25,152	W	W	W	41,891	W	73,066	W	138,087	W	98,532	W	98,910	W	151,024	W	205,150	W
Oklahoma	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Oregon	W	W	W	W	10,688	W	W	W	W	W	W	W	W	W	W	W	10,704	W
Pennsylvania	65,658	W	68,792	W	56,304	W	62,908	W	58,909	W	66,902	W	W	W	W	W	W	W
Puerto Rico	W	W	W	W	W	W	W	W	12,937	W	W	W	14,118	W	W	W	W	W
Rhode Island	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
South Carolina	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
South Dakota	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Tennessee	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Texas	310,954	W	246,694	W	431,594	W	445,304	W	647,769	W	565,672	W	844,565	W	397,995	W	359,213	W
U.S. Minor Outlying Islands	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Utah	W	W	W	W	1,696	W	1,012	W	W	W	W	W	W	W	W	W	W	W
Vermont	W	W	W	W	W	W	W	W	W	W	1,610	W	W	W	W	W	W	W
Virgin Islands	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Virginia	W	W	W	W	W	W	53,848	W	38,638	W	W	W	100,764	W	77,543	W	359,213	W
Washington	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
West Virginia	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
Wisconsin	W	W	W	W	9,177	W	W	W	W	W	W	W	W	W	W	W	W	W
Wyoming	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W	W
<b>U.S. total</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>	<b>W</b>

Data source: U.S. Energy Information Administration, Form EIA-63B, *Annual Photovoltaic Module Shipments Report*

Note: Monthly data for 2023 are based on a subset of the largest manufacturers representing about 90% of the previous year's total shipments. Totals include both shipments to the United States by state and sales to U.S. original equipment manufacturers for resale. W=withheld to protect sensitive data.