



2022 Annual Solar Photovoltaic Module Shipments Report

July 2023

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Table 1. U.S. photovoltaic industry status, 2022
Not published for 2022

Table 2. Value and average value of photovoltaic module shipments, 2022

Module value, total shipments (thousand dollars)	
Total modules	\$12,495,509
Module average value (dollars per peak watt)	
Total modules	\$0.39

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

Note: Dollars are not adjusted for inflation.

**Table 3. Annual photovoltaic module shipments, 2006–22
peak kilowatts**

Year	Modules
2006	320,208
2007	494,148
2008	920,693
2009	1,188,879
2010	2,644,498
2011	3,772,075
2012	4,655,005
2013	4,984,881
2014	6,237,524
2015	9,942,978
2016	13,451,187
2017	10,864,545
2018	7,971,622
2019	16,372,314
2020	21,770,903
2021	28,838,343
2022	31,679,435

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

Note: Includes both U.S. shipments and exports.

Table 4. Average value of photovoltaic modules, 2006–22
dollars per peak watt

Year	Modules
2006	\$3.50
2007	\$3.37
2008	\$3.49
2009	\$2.79
2010	\$1.96
2011	\$1.59
2012	\$1.15
2013	\$0.75
2014	\$0.87
2015	\$0.71
2016	\$0.72
2017	\$0.48
2018	\$0.45
2019	\$0.41
2020	\$0.38
2021	\$0.34
2022	\$0.39

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

Note: Dollars are not adjusted for inflation.

Table 5. Source and disposition of photovoltaic cell shipments, 2022

Not published for 2022

**Table 6. Source and disposition of photovoltaic module shipments, 2022
peak kilowatts**

Module shipments	Total
Source	
Inventory, start-of-year	Q
Manufactured during reporting year	5,076,063
Imported during reporting year	27,832,582
Purchased from U.S. OEM	120,872
Total available for shipment	Q
Disposition	
U.S. shipments and sales to U.S. OEM* for resale	31,045,614
Export shipments	633,821
Total shipments	31,679,435
Inventory, End-of-Year	Q

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

Note: OEM is Original Equipment Manufacturer. Q = poor data quality.

**Table 7. Photovoltaic module import shipments by country, 2022
peak kilowatts**

Country	Total
China, Singapore, Taiwan, and Vietnam	10,855,672
Malaysia	4,053,355
South Korea, Thailand, and United Arab Emirates	5,987,020
All Others and Unknown	6,936,535
Total	27,832,582

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

Note: Country-specific data are from monthly respondents only.

Table 8. Destination of photovoltaic module export shipments, 2022

Not published for 2022

**Table 9. U.S. photovoltaic module shipments by state or territory, 2022
peak kilowatts**

State	Total
Alabama	W
Alaska	W
Arkansas	W
Arizona	691,147
California	4,443,039
Colorado	786,826
Connecticut	225,835
District of Columbia	W
Delaware	W
Florida	2,447,013
Georgia	W
Guam	W
Hawaii	84,346
Iowa	W
Idaho	W
Illinois	437,880
Indiana	256,732
Kansas	44,993
Kentucky	W
Louisiana	4,338
Massachusetts	416,455
Maryland	204,825
Maine	113,516
Michigan	180,937
Minnesota	123,447
Missouri	22,772
Mississippi	14,661
Montana	13,778
Nebraska	9,440
New Hampshire	W
New Jersey	1,052,268
New Mexico	229,475
New York	477,939
Nevada	417,262
North Carolina	310,454
North Dakota	W
Ohio	699,459
Oklahoma	13,218
Oregon	122,305
Pennsylvania	641,252
Puerto Rico	W
Rhode Island	W
South Carolina	1,611,289
South Dakota	W
Tennessee	W
Texas	3,756,231
US Minor Outlying Islands	W
Utah	28,225
Vermont	14,680
Virginia	560,053
Virgin Islands	W
Washington	52,429
Wisconsin	W

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

Note: State data collected from monthly respondents only. W = Withheld to protect sensitive data.