

Table 3.13 Export shipments of photovoltaic cells and modules by type, 2000 - 2009

(peak kilowatts)

Item/Year	Crystalline Silicon	Thin-Film Silicon	Concentrator Silicon	Total
Cells				
2000	32,019	-	86	32,105
2001	26,899	-	174	27,073
2002	33,952	-	267	34,219
2003	30,337	-	127	30,464
2004	36,492	-	-	36,492
2005	20,434	-	-	20,434
2006	12,960	838	400	14,198
2007	16,592	1,500	3,753	21,845
2008	36,419	605	15,967	52,991
2009	42,299	2,291	21,743	66,333
Modules				
2000	35,440	837	-	36,277
2001	29,660	4,622	-	34,282
2002	29,987	2,572	-	32,559
2003	25,190	5,039	-	30,229
2004	52,938	13,341	-	66,278
2005	39,992	32,000	25	72,017
2006	47,681	68,880	-	116,561
2007	66,791	148,477	95	215,364
2008	204,471	203,391	1,400	409,261
2009	438,124	176,452	518	615,094
Totals				
2000	67,460	837	86	68,382
2001	56,559	4,622	174	61,356
2002	63,939	2,572	267	66,778
2003	55,527	5,039	127	60,693
2004	89,430	13,341	-	102,770
2005	60,426	32,000	25	92,451
2006	60,640	69,718	400	130,757
2007	83,383	149,977	3,848	237,209
2008	240,890	203,996	17,367	462,252
2009	480,423	178,743	22,261	681,427

- = No data reported.

Note: Totals may not equal sum of components due to independent rounding.**Source:** U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.14 Destination of U.S. photovoltaic cell and module export shipments by country, 2008 and 2009

(peak kilowatts)

Region/Country	2008	Percent of U.S. Exports 2008	2009	Percent of U.S. Exports 2009
Africa				
Egypt	-	-	1	*
Ethiopia	-	-	2	*
Kenya	416	0.09	400	0.06
Nigeria	400	0.09	450	0.07
South Africa	1,162	0.25	902	0.13
Total	1,978	0.43	1,754	0.26
Asia				
Afghanistan	76	0.02	-	-
Bahrain	1	*	s	*
Cambodia	624	0.13	-	-
China	4,418	0.96	18,297	2.69
Hong Kong	4,120	0.89	3,609	0.53
India	1,137	0.25	14,806	2.17
Indonesia	176	0.04	-	-
Israel	149	0.03	3,800	0.56
Japan	440	0.10	5,472	0.80
Korea, South	10,763	2.33	12,581	1.85
Malaysia	19	*	25	*
Oman	24	*	-	-
Singapore	12,297	2.66	3	*
Sri Lanka	-	-	1	*
Taiwan	700	0.15	1,244	0.18
Thailand	14	*	-	-
United Arab Emirates	234	0.05	195	0.03
Total	35,192	7.61	60,034	8.81
Australia and Oceania				
Australia	8,108	1.75	8,368	1.23
New Zealand	48	0.01	2	*
Vanuatu	-	-	s	*
Total	8,156	1.76	8,370	1.23
Central America				
Bahamas	100	0.02	-	-
Belize	7	*	-	-
British Virgin Islands	-	-	31	*
Cayman Islands	3	*	-	-
Costa Rica	16	*	6	*
Dominica	5	*	-	-
Dominican Republic	159	0.03	1,062	0.16
El Salvador	2	*	17	*
Guatemala	16	*	9	*
Haiti	225	0.05	111	0.02
Honduras	61	0.01	47	*
Jamaica	50	0.01	50	*
Nicaragua	139	0.03	166	0.02
Panama	134	0.03	104	0.02
Trinidad and Tobago	4	*	-	-
Total	1,484	0.32	2,239	0.33

See footnotes at end of table.

Table 3.14 Destination of U.S. photovoltaic cell and module export shipments by country, 2008 and 2009 (cont.)

(peak kilowatts)

Region/Country	2008	Percent of U.S. Exports 2008	2009	Percent of U.S. Exports 2009
Europe				
Albania	481	0.10	4,700	0.69
Austria	4,155	0.90	3,000	0.44
Belgium	2,148	0.46	27,247	4.00
Bulgaria	541	0.12	4,700	0.69
Czech Republic	592	0.13	6,902	1.01
Denmark	101	0.02	7	*
Finland	1	*	4	*
France	31,196	6.75	47,271	6.94
Germany	198,230	42.88	309,147	45.37
Greece	487	0.11	1,600	0.23
Hungary	512	0.11	4,701	0.69
Ireland	17	*	29	*
Italy	49,830	10.78	108,187	15.88
Kazakhstan	1	*	-	-
Netherlands	20	*	2,994	0.44
Norway	-	-	2	*
Poland	482	0.10	4,700	0.69
Portugal	10	*	1,007	0.15
Romania	482	0.10	4,700	0.69
Russia	2	*	-	-
Spain	105,555	22.84	23,460	3.44
Sweden	1,131	0.24	1,868	0.27
Switzerland	383	0.08	8,182	1.20
Turkey	3	*	41	*
United Kingdom	50	0.01	18	*
Total	396,410	85.76	564,466	82.84
North America				
Mexico	564	0.12	638	0.09
Canada	17,819	3.85	43,458	6.38
Total	17,819	3.85	43,458	6.38
South America				
Argentina	5	*	-	-
Bolivia	135	0.03	139	0.02
Brazil	652	0.14	503	0.07
Chile	145	0.03	190	0.03
Colombia	97	0.02	53	*
Ecuador	21	*	16	*
Guyana	-	-	7	*
Peru	152	0.03	148	0.02
Uruguay	8	*	2	*
Venezuela	-	-	50	*
Total	1,214	0.26	1,107	0.16
U.S. Total	462,252	100.00	681,427	100.00

* = Less than 0.01 percent.

s = Value is less than 0.5 of the table metric, but value is included in any associated total.

- = No data reported.

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.15 Shipments of complete photovoltaic module systems, 2007 - 2009

Shipment Information	2007	2008	2009
Complete Photovoltaic Module Systems Shipped	10,600	20,025	9,233
Peak Kilowatts	80,560	202,632	228,017
Percentage of Total Module Shipments	16	22	19
Revenue of Systems (Thousand Dollars)	491,740	1,246,126	1,145,366

Note: Totals may not equal sum of components due to independent rounding.

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.16 Employment in the photovoltaic manufacturing industry, 2000 – 2009

Year	Number of Companies	Number of Person-Years
2000	21	1,913
2001	19	2,666
2002	19	2,696
2003	20	2,590
2004	19	2,916
2005	29	3,198
2006	41	4,028
2007	46	6,170
2008	66	11,245
2009	101	14,443

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.17 Number of companies expecting to introduce new photovoltaic products in 2010

New Product Type	Number of Companies
Crystalline Silicon	
Single-Crystal Silicon Modules	22
Cast Silicon Modules	11
Ribbon Silicon Modules	2
Thin-Film	
Amorphous Silicon Modules	11
Other (Thin Film)	9
Concentrators	3
Nonmodule System Components	8

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.18 Number of companies involved in photovoltaic-related activities, 2008 and 2009

Type of Activity	Number of Companies	
	2008	2009
Module or Cell Manufacturing	29	43
Module or Systems Design	39	49
Prototype Module Development	28	34
Prototype Systems Development	20	26
Wholesale Distribution	37	54
Retail Distribution	16	23
Installation	28	42
Noncollector System Component Manufacture	9	15

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."

Table 3.19 Photovoltaic-related sales as a percentage of total company sales revenue, 2008 and 2009

Percent of Total Sales Revenue	Number of Companies	
	2008	2009
90-100	50	70
50-89	7	10
10-49	4	8
Less than 10	5	13
U.S. Total	66	101

Source: U.S. Energy Information Administration, Form EIA-63B, "Annual Photovoltaic Module/Cell Manufacturers Survey."