



US Solar Industry Year in Review 2008

Supplemental Charts

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For more information or comments about data in this report, contact Justin Baca. For press inquiries contact SEIA's communications team, Monique Hanis or Jared Blanton.

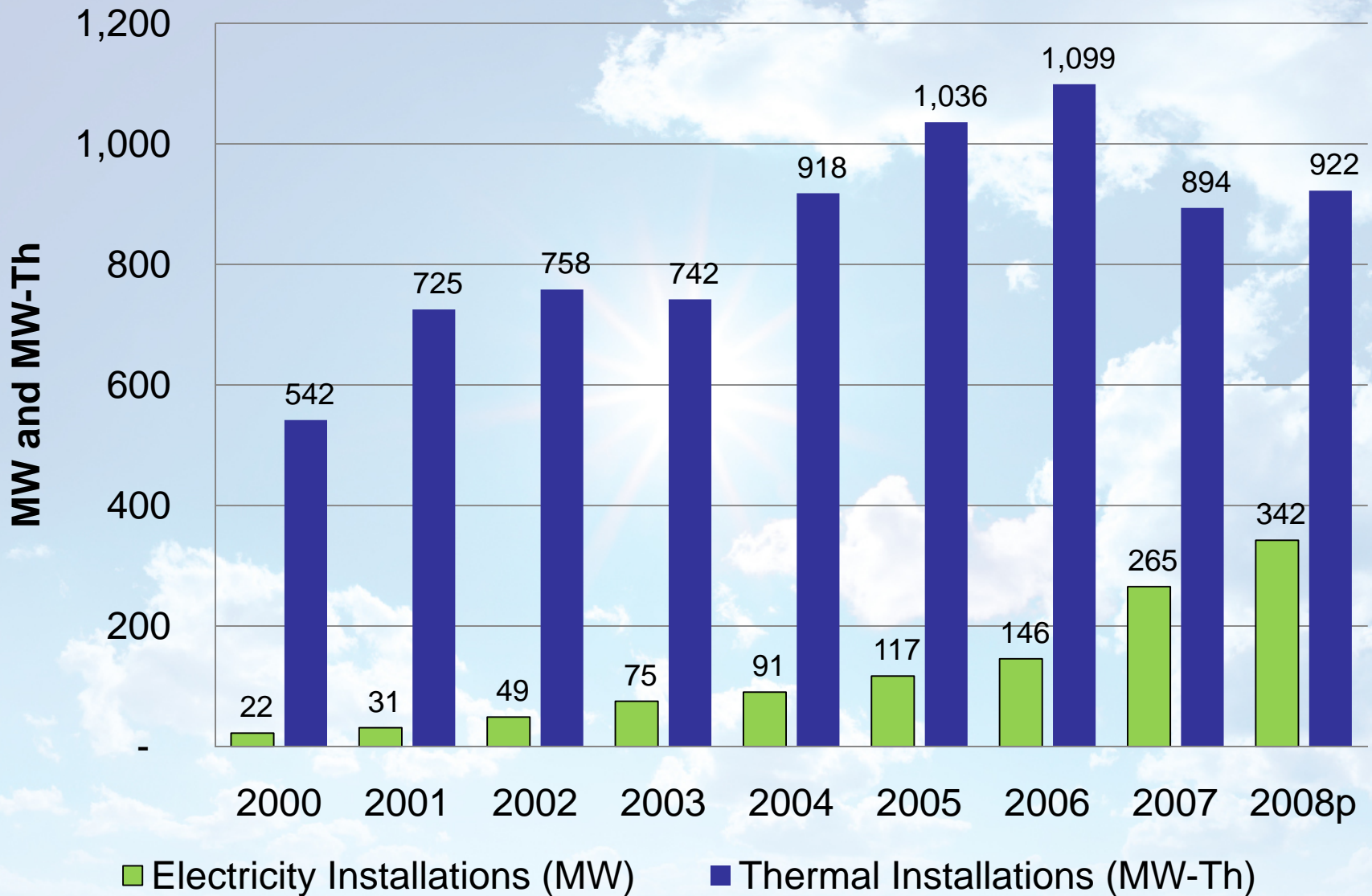
US Market Growth in 2008

- Overall 16% growth in capacity
 - 1,265 MW and MW_{Th} added in 2008
 - Cumulative capacity now 9,183 MW and MW_{Th}
- Overall 9% increase in annual capacity additions
 - 81% growth in on-grid PV installations
 - 50% growth in solar water heating installations
 - 3% decline in solar pool heating installations

MW_{Th} = collector area multiplied by 0.7 kW/m²

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Solar Energy Capacity Additions

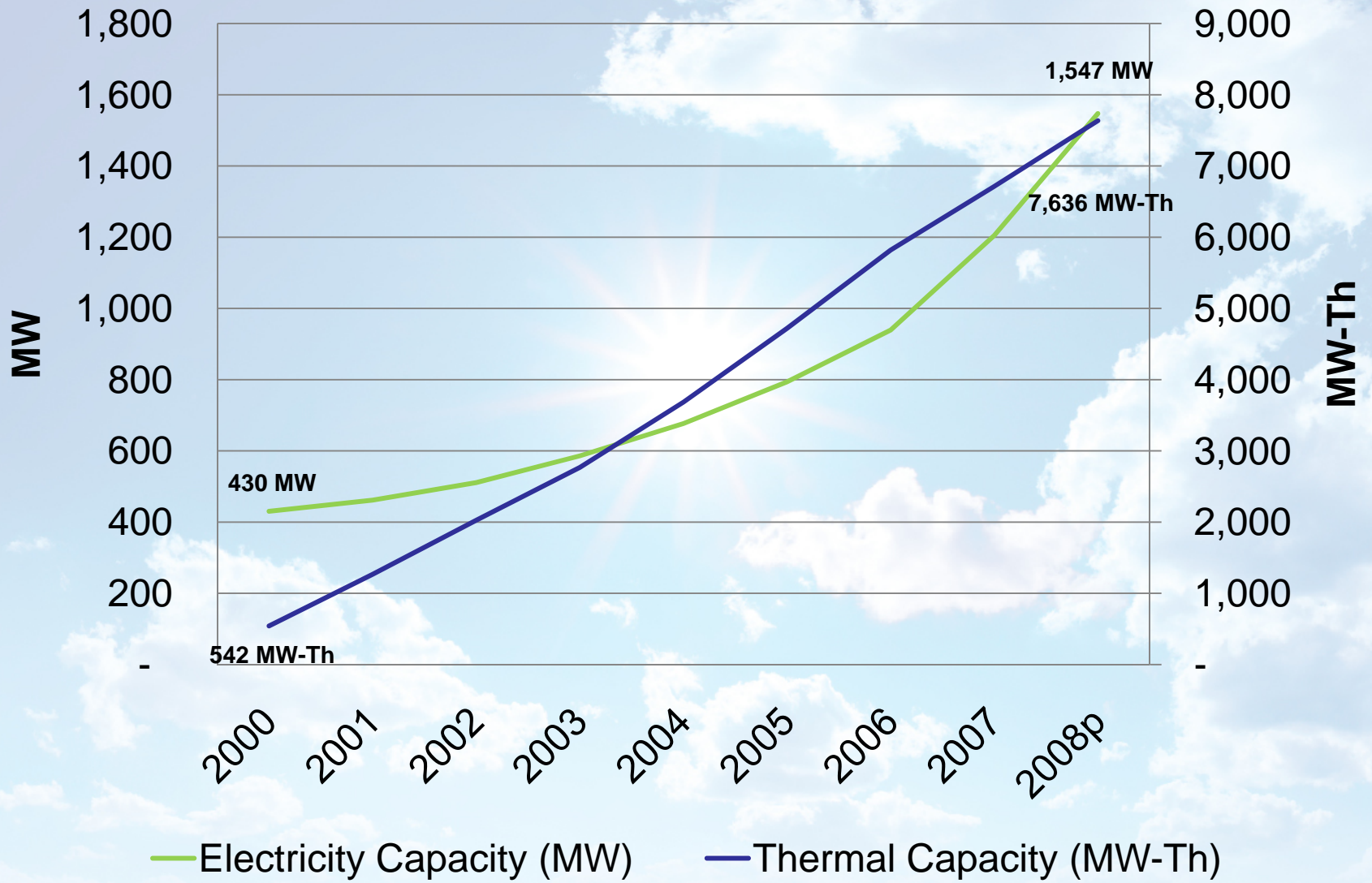


MW-Th = collector area multiplied by 0.7 kW/m²

Sources: SEIA, IREC, EIA, SRCC, MDV-SEIA, PV News
p = preliminary

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Cumulative Installed Solar Capacity



MW-Th = collector area multiplied by 0.7 kW/m²

Sources: SEIA, IREC, EIA, SRCC, MDV-SEIA, PV News
p = preliminary

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US PV Market

- Utility segment expected to grow due to elimination of utility ownership restriction from the ITC
- Residential ITC uncapped as of January 1, 2009
 - Could more than double the value of the federal incentive for residential PV installations
- Domestic manufacturing continues to grow

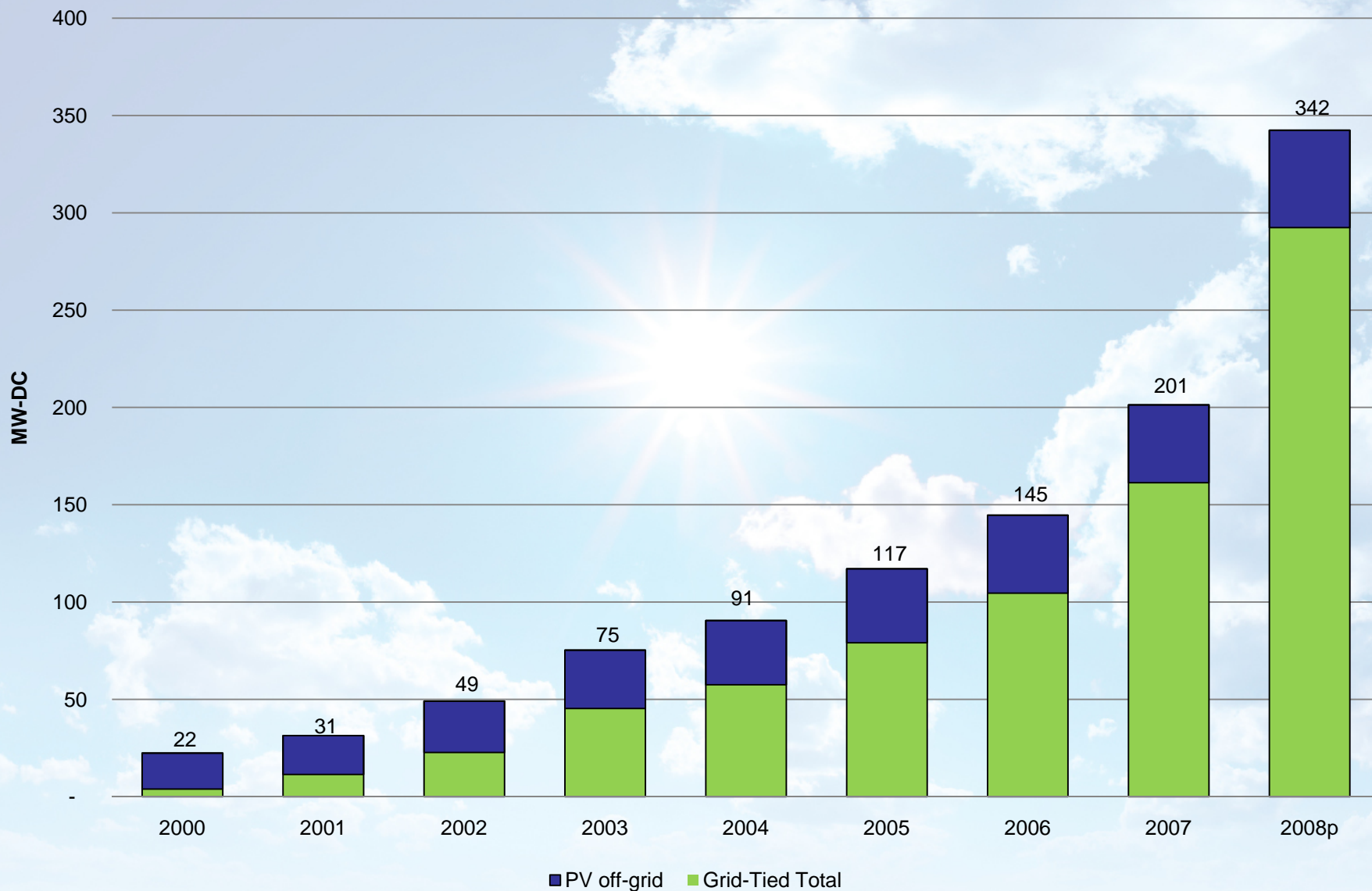


6-kW PV system provides 85 percent of this Washington, D.C. home's electricity. *Courtesy: Standard Solar*

Domestic PV Cell Manufacturing (MW _{DC})			
	2007	2008p	Growth
Production	271	414	53%
Capacity	415	685	65%

Source: Greentech Media Research/Prometheus Institute
p = preliminary

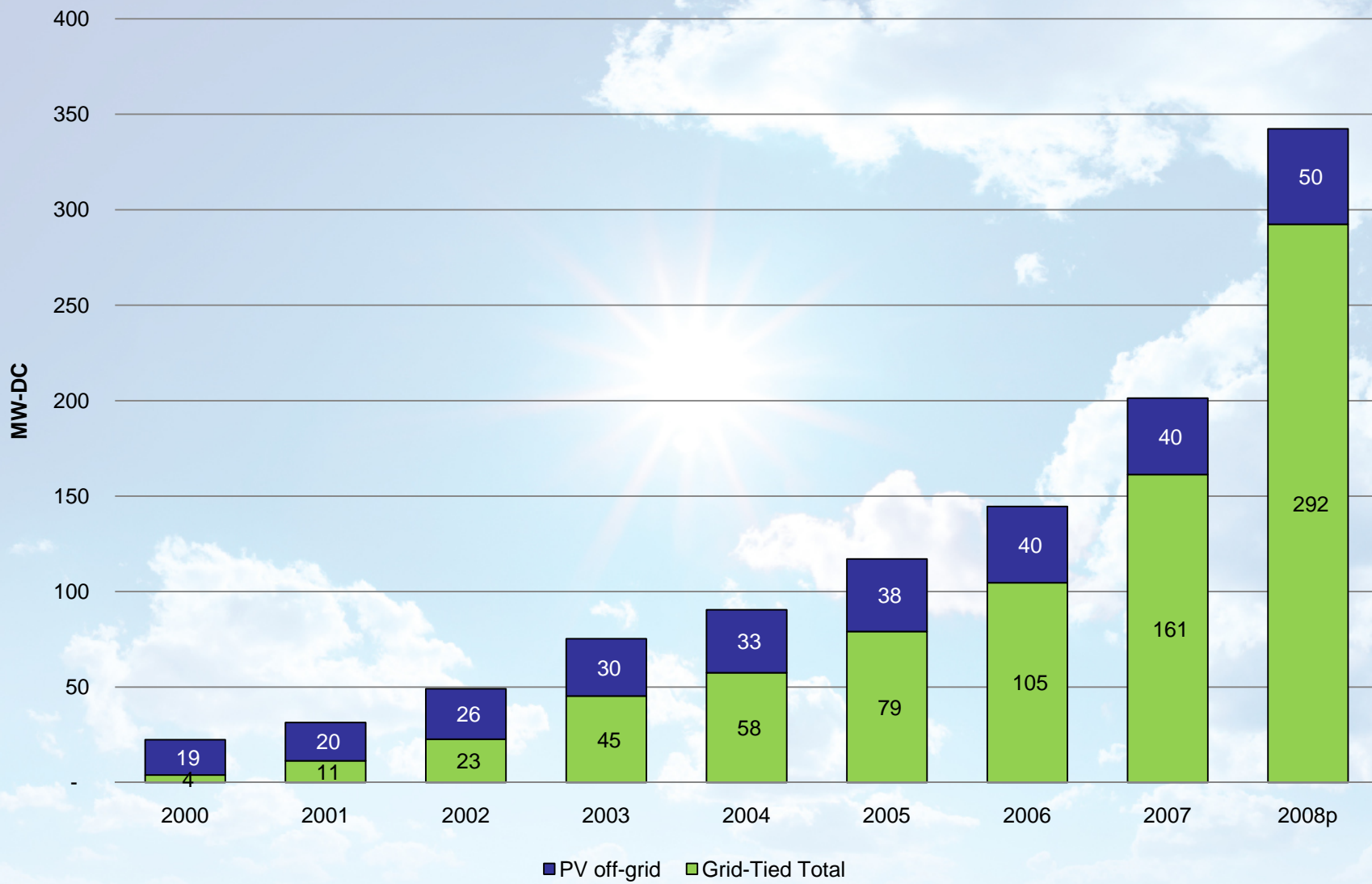
PV Capacity Additions



Sources: SEIA, IREC, PV News
p = preliminary

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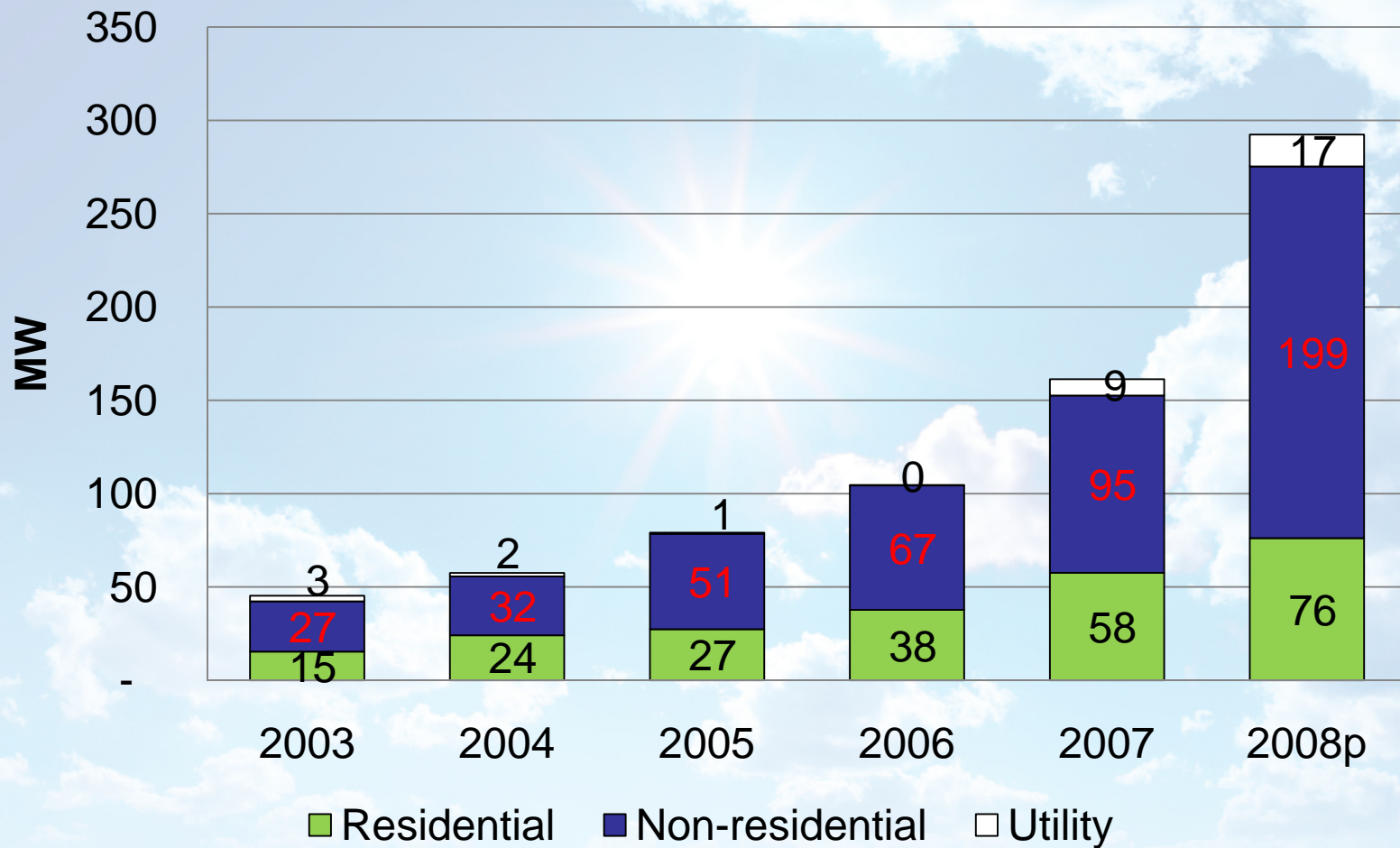
PV Capacity Additions



Sources: SEIA, IREC, PV News
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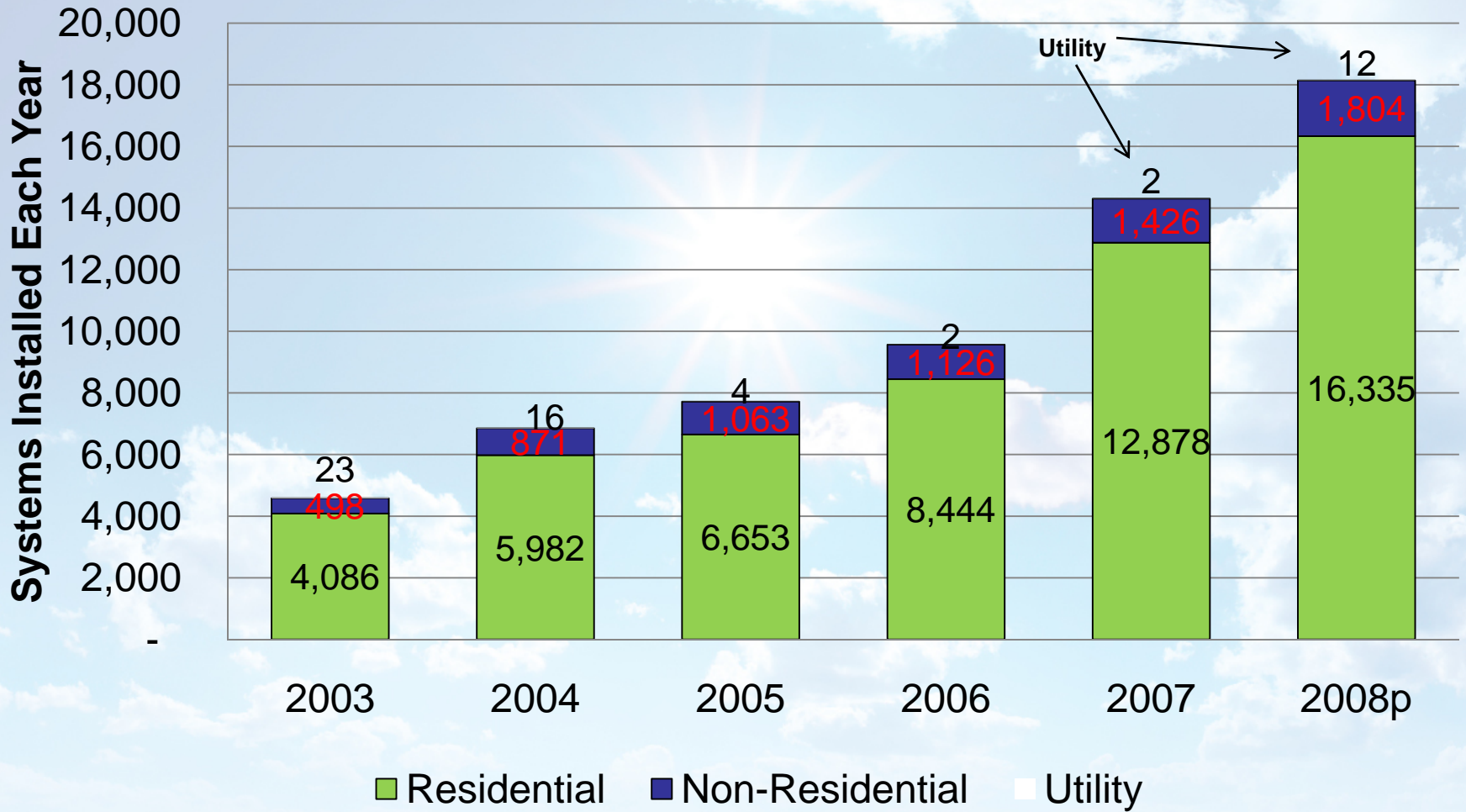
Grid-Tied PV Capacity Additions by Market Segment



Sources: IREC
p = preliminary

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Grid-Tied PV System Installations by Market Segment

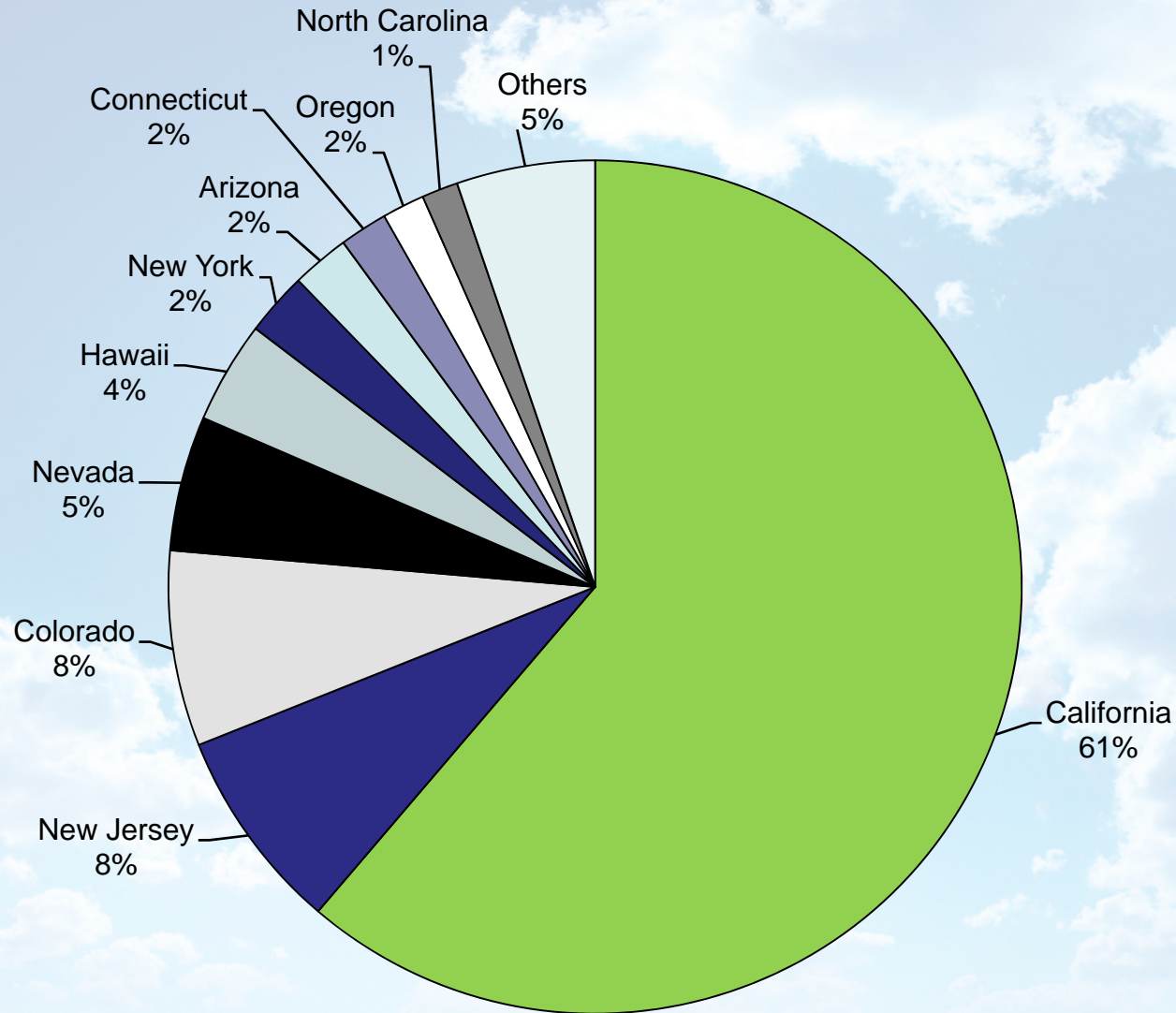


Sources: IREC
p = preliminary

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Grid-Tied PV Capacity Additions in 2008

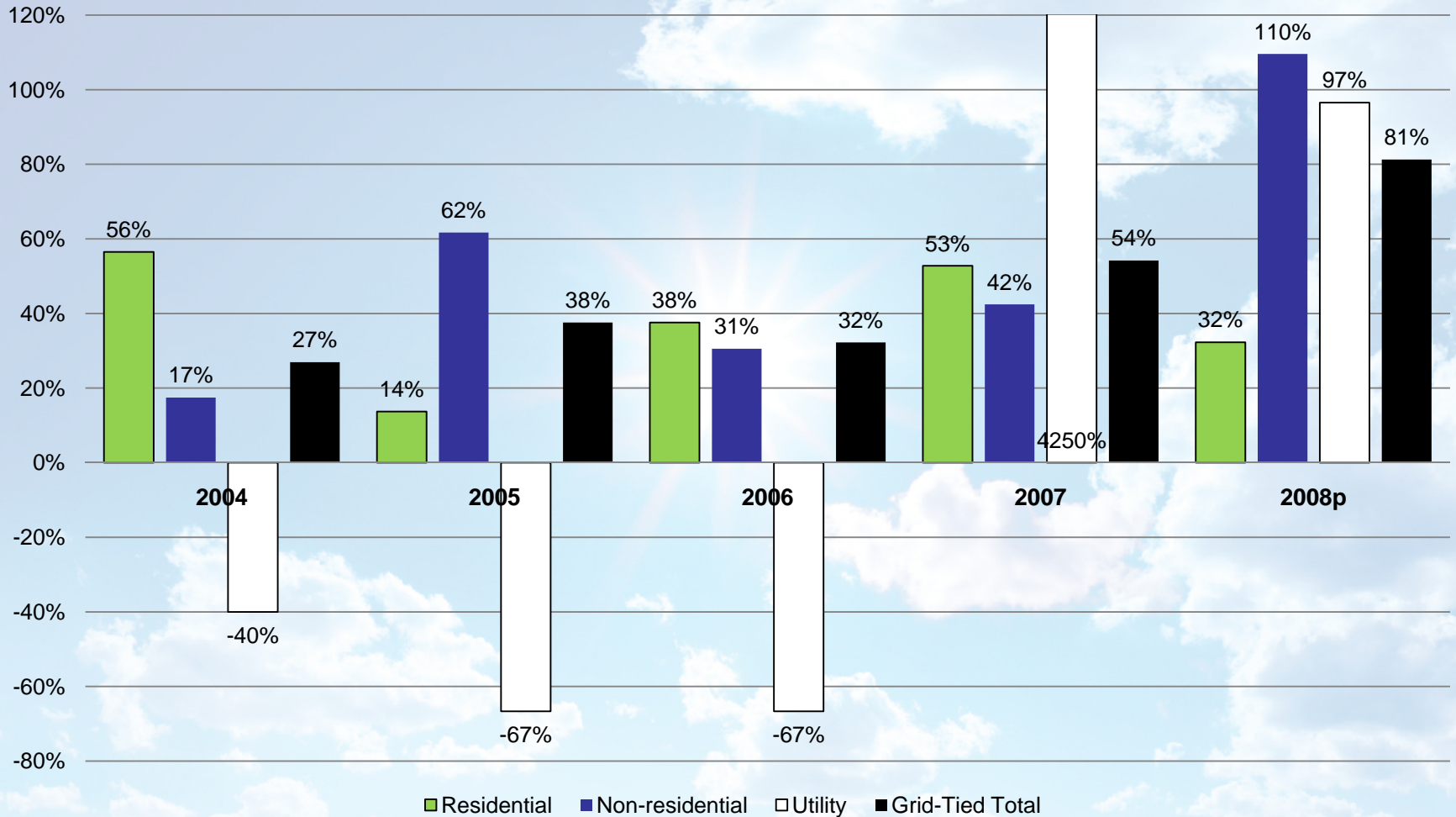
Market Share by MW



Sources: IREC
p = preliminary

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Year/Year Growth in Grid-Tied PV Capacity Additions



Sources: IREC
p = preliminary

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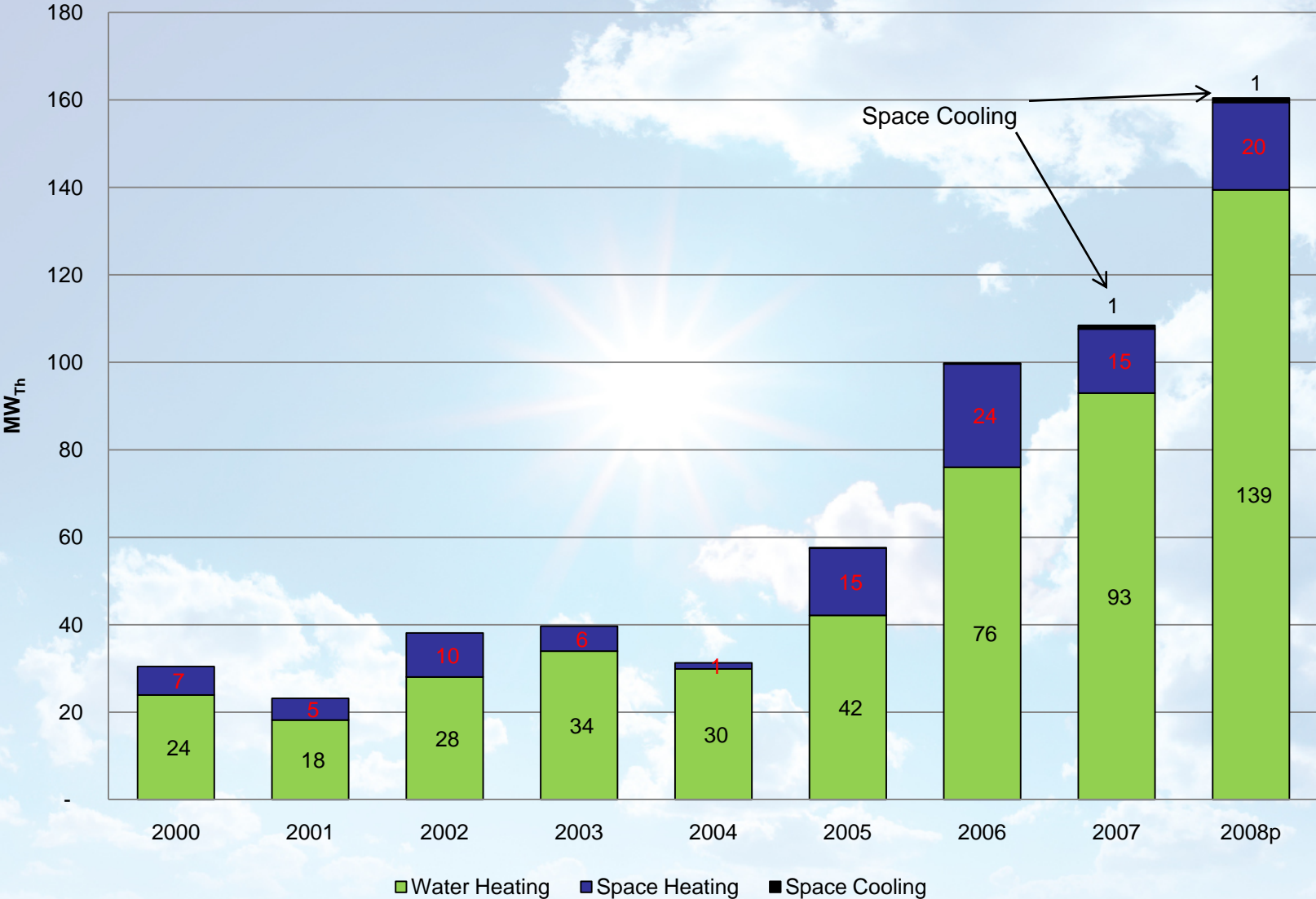
US Solar Thermal Market

- Strong growth in 2008
- Residential solar water heating ITC cap removed in ARRA
 - Expected to increase demand everywhere
 - Makes more complex systems more affordable
 - Expands markets to more northern states
 - Increases opportunities for use of solar radiant floor heating



Home in Virginia with 80-gallon evacuated-tube solar water heater and 2.7-kW PV system. *Courtesy: Standard Solar*

Thermal Collector Shipments

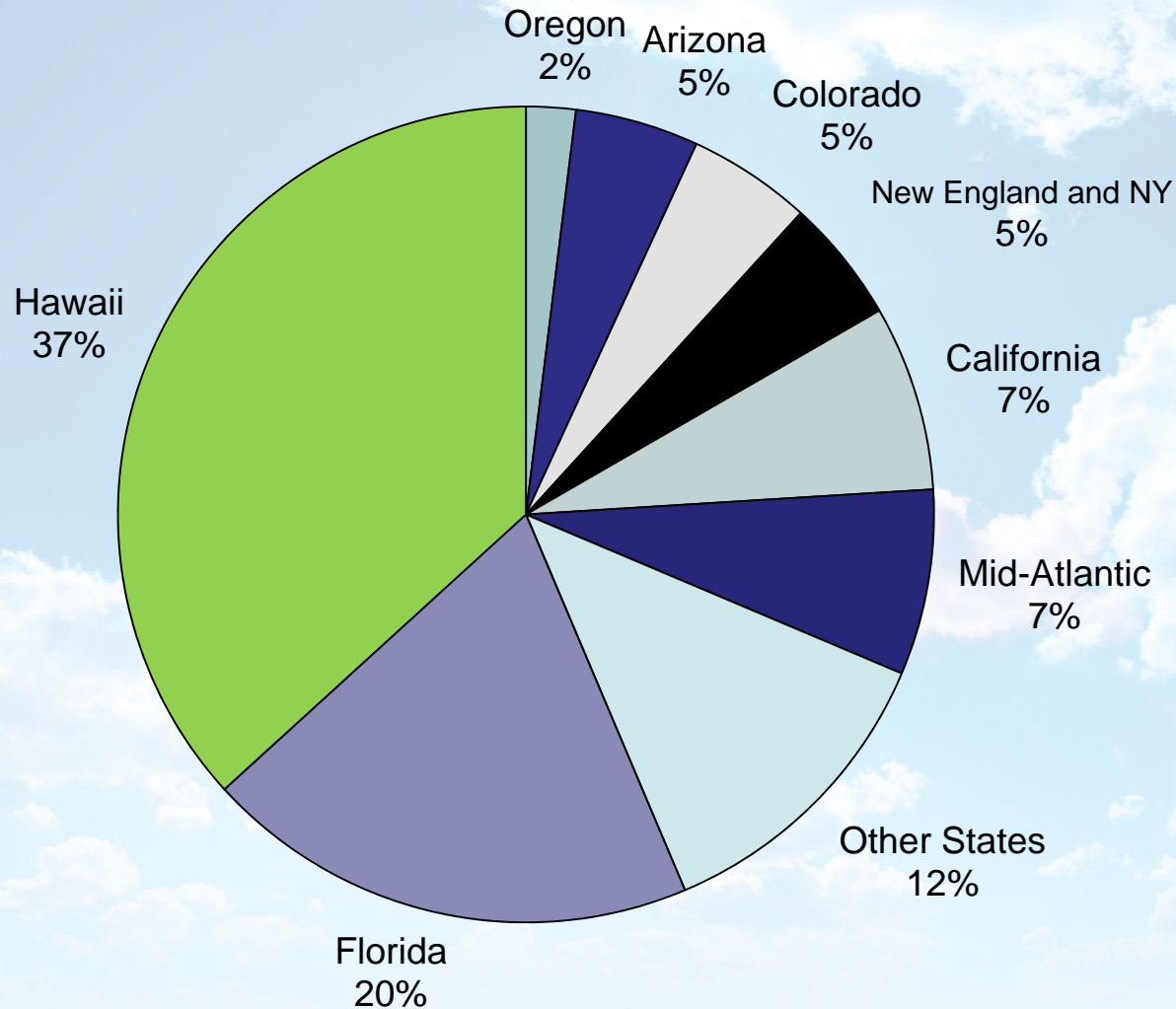


MW_{Th} = collector area multiplied by 0.7 kW/m²

Sources: SEIA, EIA, SRCC
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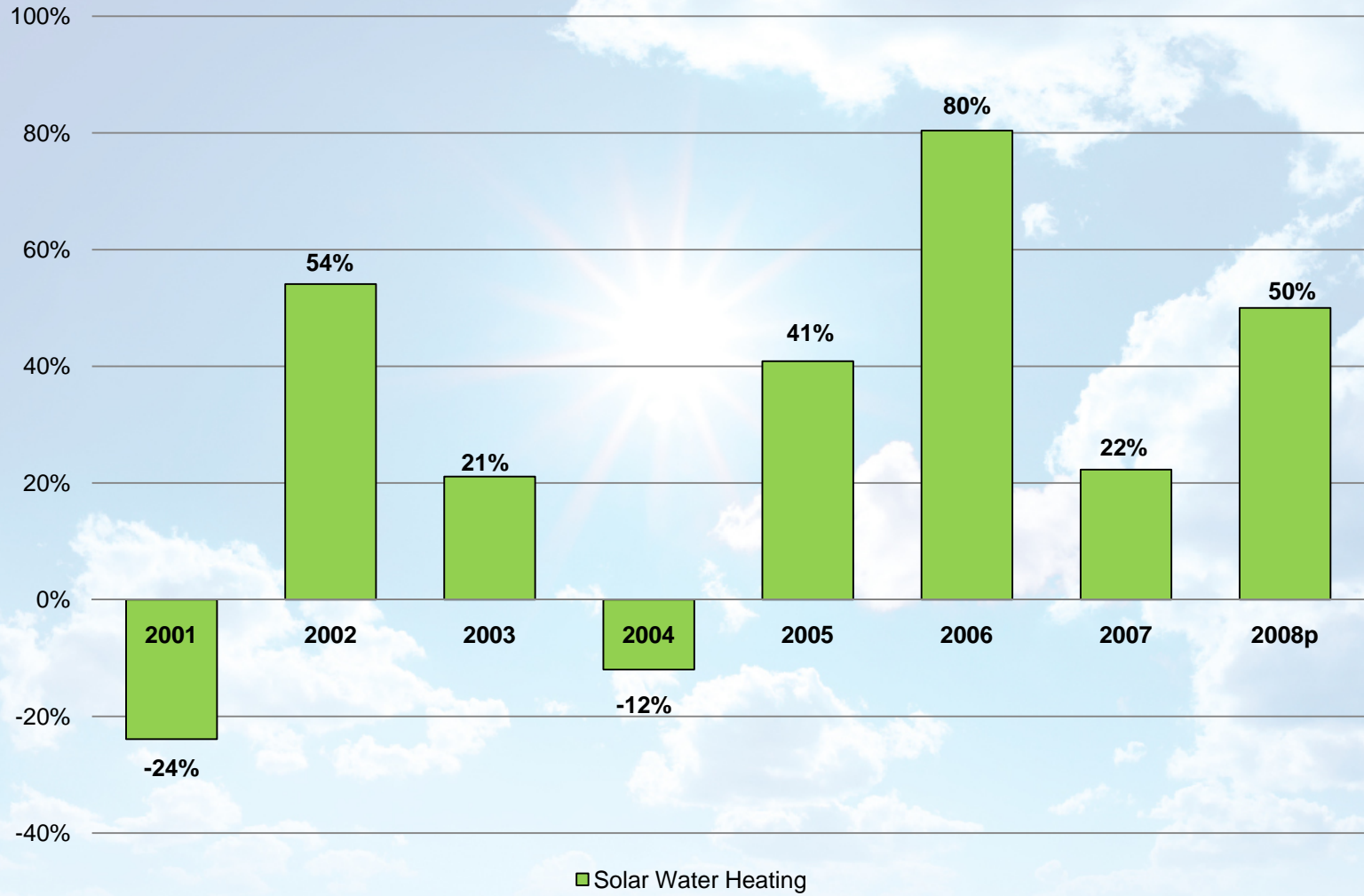
Solar Water Heating Systems Installed in 2008



Sources: SRCC
p = preliminary

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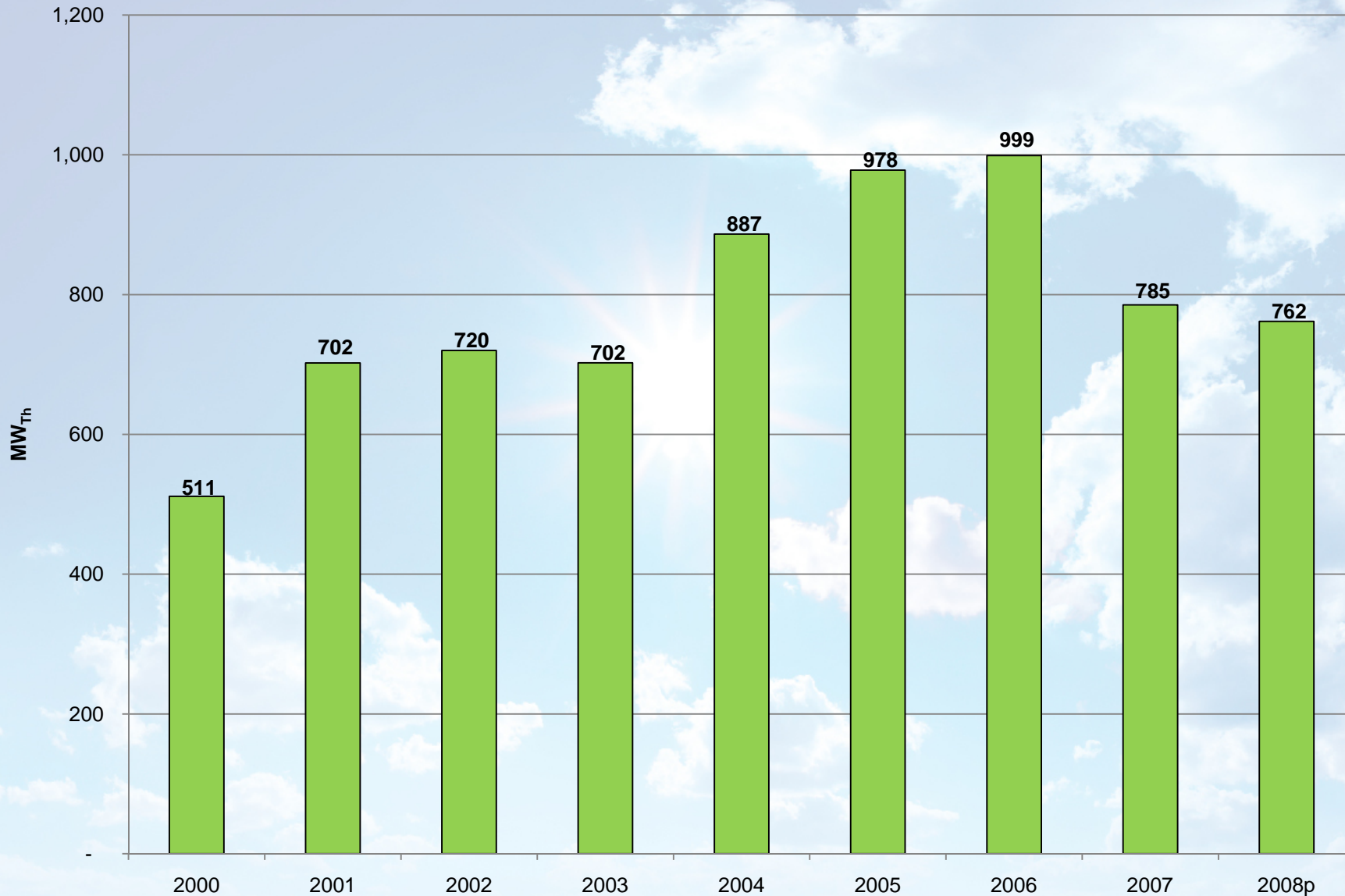
Annual Growth in Solar Water Heating Market



Sources: SEIA, EIA, SRCC
p = preliminary

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Solar Pool Heater Collector Shipments



MW_{Th} = collector area multiplied by 0.7 kW/m²

Sources: SEIA, EIA, SRCC, MDV-SEIA
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Concentrating Solar Power

- Currently 419 MW of CSP in the US
- Test facilities operating but no new capacity feeding the US grid in 2008
- Construction began at first US CSP facility outside the southwest
 - 75-MW FPL hybrid plant in Florida
- Andasol plant in Spain with 7 hours of storage came online in November

6,000 MW of CSP Projects Queued Up

Developer	Project Name	Electricity Purchaser	Location	Technology	Capacity (MW)
Abengoa Solar	Solana plant	Arizona Public Service	Gila Bend, AZ	Trough	280
Ausra		Pacific Gas & Electric	Carrizo Plain, CA	Linear Fresnel	177
BrightSource Energy	Ivanpah	Pacific Gas & Electric	Barstow, CA	Tower	300
BrightSource Energy	Ivanpah	Southern California Edison	Barstow, CA	Tower	100
BrightSource Energy		Southern California Edison	California	Tower	1,200
Emcore/SunPeak Power			Southwest US	Lens CPV	200
eSolar	Gaskell Sun Tower (Phase I)	Southern California Edison	Kern County, CA	Tower	105
eSolar	Gaskell Sun Tower (Phase II)	Southern California Edison	Kern County, CA	Tower	140
Florida Power & Light Co.	Martin Next Generation Solar Energy Center	Florida Power & Light Co.	Martin County, FL	Trough	75
GreenVolts, Inc.		Pacific Gas & Electric	Byron, CA	CPV	2
Harper Lake, LLC	Harper Lake Solar Plant		California	Trough	250
Inland Energy, Inc.	Palmdale Hybrid Gas-Solar plant		Palmdale, CA	Trough	50
Inland Energy, Inc.	Victorville Hybrid Gas-Solar plant		Victorville, CA	Trough	50
NextEra Energy Resources	Beacon Solar Energy Project		Kern County, CA	Trough	250
San Joaquin Solar, LLC	San Joaquin Solar 1	Pacific Gas & Electric	Coalinga, CA	Trough	53
San Joaquin Solar, LLC	San Joaquin Solar 2	Pacific Gas & Electric	Coalinga, CA	Trough	53
Solar Millennium	Nye County Project 1	NV Energy	Nye County, NV	Trough	250
Solar Millennium	Nye County Project 2	NV Energy	Nye County, NV	Trough	250
Solel	Mojave Solar Park	Pacific Gas & Electric	Mojave Desert, CA	Trough	553
Sopogy	Demonstration plant		Kailua-Kona, HI	MicroCSP	1
Stirling Energy Systems	SES Solar One	Southern California Edison	Victorville, CA	Dish-engine	500
Stirling Energy Systems	SES Solar One Expansion	Southern California Edison	Victorville, CA	Dish-engine	350
Stirling Energy Systems	SES Solar Two	San Diego Gas & Electric	Imperial County, CA	Dish-engine	300
Stirling Energy Systems	SES Solar Two Expansion	San Diego Gas & Electric	Imperial County, CA	Dish-engine	600
Total Projects Under Development					6,090

How the US Market Ranks

- China and Germany are the top markets for solar water heating
- Germany and Spain are the top markets for solar electricity
- US surpassed Japan in 2008 to be third in annual PV installations.

Solar Electricity Capacity

Country	New Capacity in 2008p	Cumulative Capacity
Spain	2,281 MW	2,973 MW
Germany	1,500 MW	5,308 MW
United States	342 MW	1,547 MW
Japan	235 MW	2,173 MW
Italy	150-200 MW	321 MW
France	105 MW	175 MW

Sources: SEIA, IREC, EPIA, CNE, PV News
Includes PV and CSP
p = preliminary

