U.S. Solar Market Insight™

1st Quarter 2011

Executive Summary

Solar Energy Industries Association®

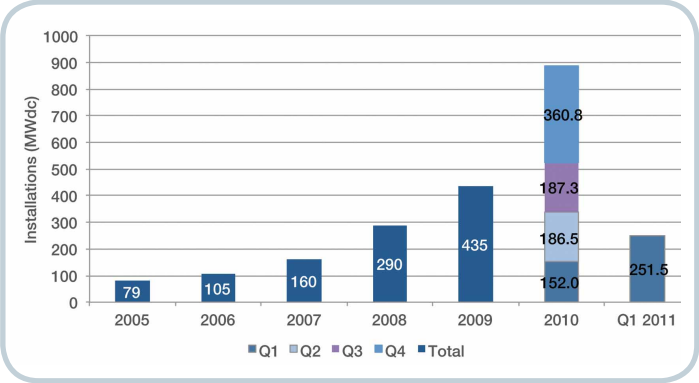
GTM RESEARCH

U.S. Solar Market Insight™

1ST QUARTER 2011: EXECUTIVE SUMMARY

SAMPLE FIGURES

Figure 1-1: U.S. PV Installations, 2005-Q1 2011



Q1 2011 PV INSTALLATIONS		
Rank (Q1 2010)	State	MWdc
1 (1)	California	112.3
2 (2)	New Jersey	41.6
3 (3)	Arizona	Complete Dataset by Market Segment Available in Full Report
4 (8)	Pennsylvania	
5 (5)	Colorado	
6 (7)	New York	
7 (9)	Massachusetts	
8 (16)	Maryland	
9 (13)	Oregon	
10 (15)	Texas	
11 (10)	Hawaii	
12 (17)	New Mexico	
13 (21)	Nevada	
14 (19)	Delaware	
15 (6)	North Carolina	
16 (18)	Wisconsin	
17 (14)	Connecticut	
18 (20)	Washington	
19 (12)	Florida	
20 (11)	Ohio	
21 (4)	Illinois	
--	Other	6.1
Total		251.5

Note: The figures above can be found in greater detail within the document.

1 INTRODUCTION

In 2010, the U.S. installed 887 megawatts[1] (MW) of grid-connected photovoltaics (PV), representing 104% growth over the 435 MW installed in 2009. Despite this, U.S. market share of global installations fell to 5.1%, down from 6% in 2009 due to even faster growth abroad. Over the past six years, the U.S. has been growing at a relatively even pace with the global market; as a result, U.S. market share of global installations has consistently hovered between 5% and 7% since 2005. In 2011, however, this pattern is likely to end. A slowdown in major European markets (most notably Italy and Germany)[2], combined with the continued strength of the U.S. market, has already led most PV manufacturers and developers to seek opportunities in the U.S. We anticipate an exciting, if volatile, year in the U.S. PV market. This report catalogues the beginning of this period.

For concentrating solar, which includes both concentrating solar power (CSP) and concentrating photovoltaics (CPV), the U.S. is poised to become the global market leader in installations. After 20 years of near-dormancy in the industry, many large-scale concentrating solar projects are set to continue their expected ramp-up over the next few years including the expected completion of the world's largest CPV facility (at 30 MW) expected before December.

1 This number has been revised from the 878 MW reported in the Solar Market Insight™ Year in Review Report.

2 While Germany installed 7,391 MW of PV in 2010, the government has targeted an annual installation rate of 4,000-5,000 MW.

KEY FINDINGS:

Photovoltaics (PV):

- Grid-connected PV installations in Q1 2011 grew 66% over Q1 2010 to reach 252 MW.
- Cumulative grid-connected PV in the U.S. has now reached over 2.3 GW.
- The top seven states installed 88% of all PV in Q1 2011, up from 82% in 2010.
- Non-residential installations in Q1 2011 more than doubled over Q1 2010 in 10 of the top 21 states.
- U.S. module production increased by 17% relative to Q4 2010, from 297 MW to 348 MW. While production from export-oriented firms and facilities dipped materially on account of soft demand conditions in the key feed-in tariff markets of Germany and Italy, plants that serve the domestic market enjoyed far healthier utilization of manufacturing capacity.
- After a year of flat-to-increasing pricing for some PV components in 2010, annual beginning-of-year feed-in tariff cuts and depressed global demand in Q1 2011 resulted in substantial price declines. Wafer and cell prices dropped by around 15% each, while module prices fell around 7%.

U.S. Solar Market Insight™ is a quarterly publication of the Solar Energy Industries Association (SEIA)® and GTM Research. Each quarter, we survey installers, manufacturers, utilities, and state agencies to collect granular data on photovoltaic (PV) and concentrating solar. These data provide the backbone of this Solar Market Insight™ report, in which we identify and analyze trends in U.S. solar demand, manufacturing, and pricing by state and market segment. We also use this analysis to look forward and forecast demand over the next five years. As the U.S. solar market expands, we hope that Solar Market Insight™ will provide an invaluable decision-making tool for installers, suppliers, investors, policymakers and advocates alike.

See the back cover of this report for more information

Concentrating Solar Power (CSP and CPV):

- The 500-MW Blythe CSP plant obtained a $2.1 billion DOE loan guarantee.
- Construction is underway on the 30 MW Alamosa CPV plant, with expected completion in 2011.
- There is a Concentrating Solar (combined CSP and CPV) pipeline of over 9 GW in the U.S.; more than 2.4 GW have signed PPAs.
- In total, 1,100 MW of CSP and CPV are now under construction in the U.S.

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2 PHOTOVOLTAICS

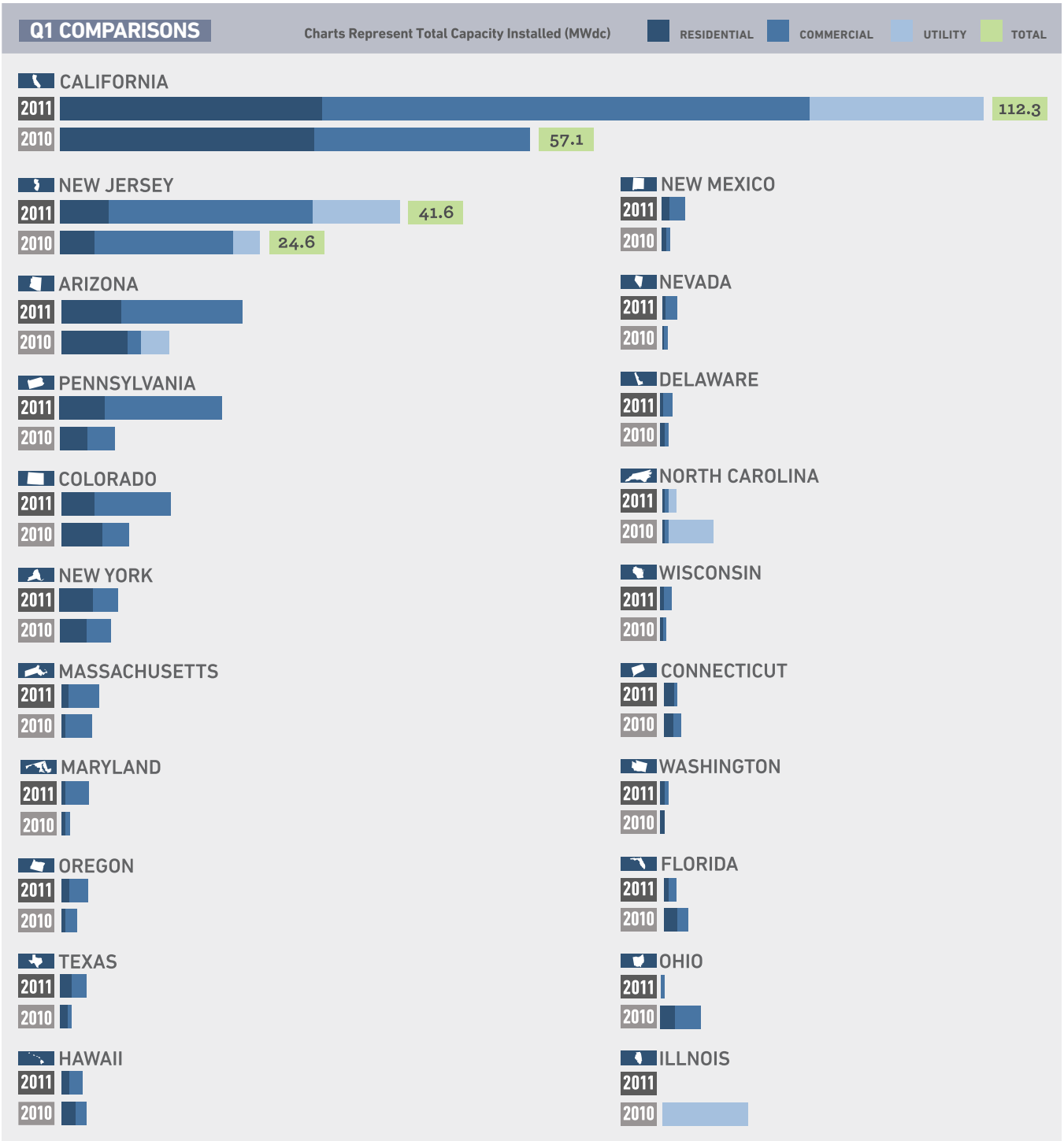
Photovoltaics (PV), which convert sunlight directly to electricity, continue to be the largest component of solar market growth in the U.S.

2.1 INSTALLATIONS

In the first quarter of 2011, the U.S. installed 252 MW of grid-connected PV. Although this represents a sequential decline of 110 MW from the fourth quarter of 2010, two factors should be taken into account. First, the Q4 2010 totals were propped up by the completion of 167 MW of utility PV as compared to only 33 MW in Q1 2011. The utility PV market remains lumpy as the completion of only a few plants can represent a huge swing in capacity additions from quarter to quarter, so little meaning should be attached to this variability. Second, seasonal weather-related impacts (particularly in Northeast U.S. markets) always push down total installations in the first quarter. In 2010, for example, only 17% of the total annual installations were completed by the end of March.

A more meaningful measurement is to compare the first quarter of 2011 with the first quarter of 2010. By this standard, Q1 2011 was strong, showing 66% year-over-year growth. As will be discussed in a subsequent section, the majority of this growth came in the non-residential sector, which grew 119% over Q1 2010. Despite strong growth in the first quarter, the market will need to ramp up even faster in order to meet industry expectations, which generally anticipate at least another doubling of the total U.S. PV market in 2011. Given the pipeline of projects and recent module price declines, we believe this outcome remains likely.

Figure 2-1: State-Level Installation Graphic



Underlying Data Available in Full Report

2.1.1 Q1 Market Growth: A Mix of Fundamentals and 2010 Overhang

There are two major factors that drove market growth in Q1 2011: market fundamentals and 2010 overhang. These two drivers should be considered individually when analyzing the market because they have very different implications for future market growth.

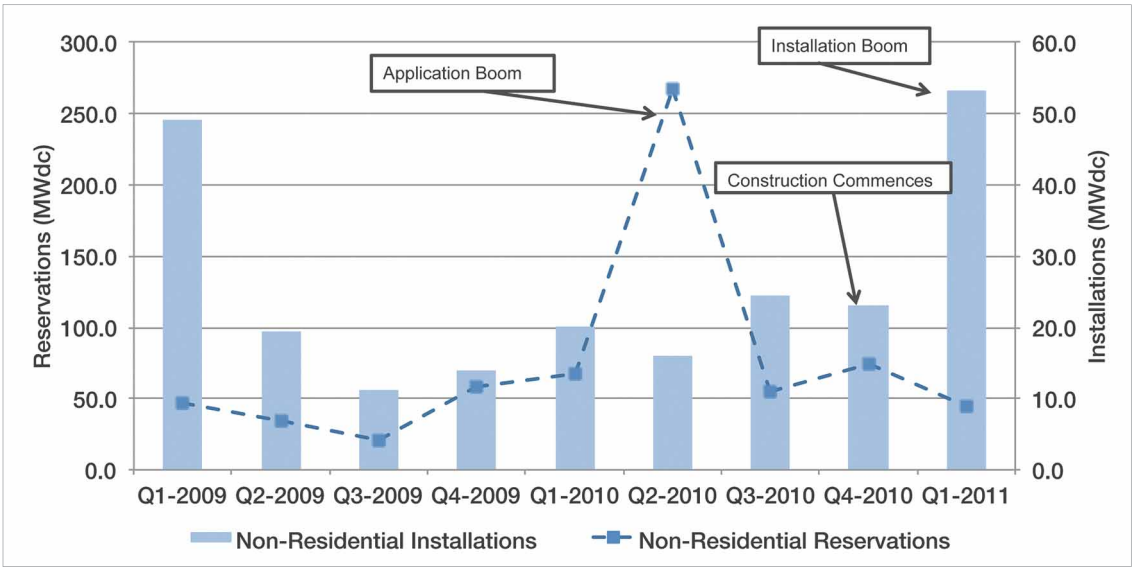
- **Market Fundamentals** – In large part, the U.S. market is growing because conditions have improved. Prices for modules, inverters and other balance of systems (BOS) components have decreased, new business models such as the residential solar lease have been expanded, and state markets have introduced new incentives to promote installations. These are ongoing factors that will continue to drive growth into the future.

- **2010 Overhang** – It is important to also consider the impact of projects that were started in 2010 and completed in early 2011. Some of these projects contribute toward the Q1 2011 total, but represent somewhat of a growth anomaly due to the expectation throughout most of 2010 that the Section 1603 Treasury grant would expire on December 31, 2010. Although the program was ultimately extended through December 31, 2011, most project developers spent the summer months of 2010 preparing for the expected start-construction deadline for the grant program. This meant that they would need to begin construction on projects by the end of 2010 in order to qualify for the grant. Figure 2-2 displays the impact of this expectation. In Q2 2010, there was a boom in reservations for non-residential installations in the California Solar Initiative. Many of these projects were never completed, but those that did move through the development process primarily began construction in Q4 2010 in order to qualify for the grant and were completed in Q1 2011. As a result, we saw a major jump in completed installations in Q1 2011. Also, residential installations, which are only eligible for the grant when sold under a third-party ownership model, did not see nearly as much growth in Q1.

The impact of 2010 overhang is threefold. First, it helps explain the fact that total module shipments to the U.S. in 2010 greatly exceeded installations; many of these shipments resulted in installations completed in Q1 2011. Second, it implies that one should exercise caution when forecasting installations for the remainder of 2011. A specific situation contributed to the Q1 non-residential market growth and is unlikely to

repeat in Q2-Q4. Finally, given that the cash program is currently slated to expire at the end of 2011, we are likely to see a similar dynamic play out this year. Namely, there will be a mid-year boom in incentive applications, a late-year boom in module and inverter shipments, and a Q1 2012 boom in non-residential installations.

Figure 2-2: California Solar Initiative Non-Residential Reservations and Installations, 2009-Q1 2011



Historically, the U.S. market has been driven primarily by the non-residential sector, which comprised over 50% of total installations through 2008. However, the utility sector has been gaining ground (28% market share in 2010), while residential remained relatively steady, accounting for around 30% of total installations. In the longer term, the U.S. market has the potential to share three vibrant, growing market segments, each contributing a meaningful share of total demand.

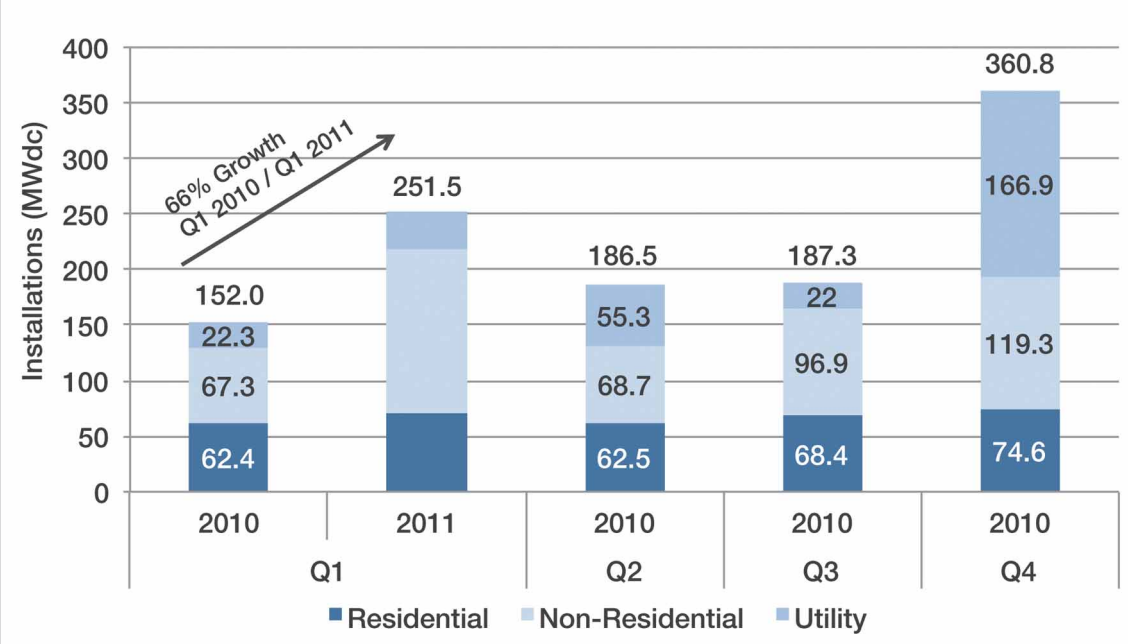
- **Non-residential** installations (which includes commercial, public sector, and non-profit) were the major story in Q1 2011. This growth was experienced across most major markets. In 10 of the 21 states tracked individually, the non-residential market grew by more than 100% year-over-year. As noted above, some of this growth can be attributed to the expected cash grant expiration. However, reduced prices and the growth of multi-MW commercial projects also contributed to increased installations.

- **Residential** installations grew marginally over Q1 2010. In contrast to the volatility of the non-residential and utility segments, the residential market has seen relatively stable quarter-over-quarter growth since the beginning of 2010.

The biggest story in the residential market remains the growth of third-party ownership, either through a lease or power purchase agreement (PPA) structure. The expansion of these offerings to new markets has opened up a great deal of new demand and is expected to continue driving growth across the U.S.

- **Utility** installations were relatively light in Q1. The largest project completed in Q1 was a 6.7 MW project in Porterville, CA which is part of Southern California Edison's PV program. The utility owns and operates the system, which was completed in February. On the whole, 2011 will be a record year for utility installations. In addition to the projects already completed, there are 886 MW of contracted projects expected to be completed in 2011, of which 447 MW are already under construction.

Figure 2-3: U.S. PV Installations by Market Segment, 2010-Q1 2011



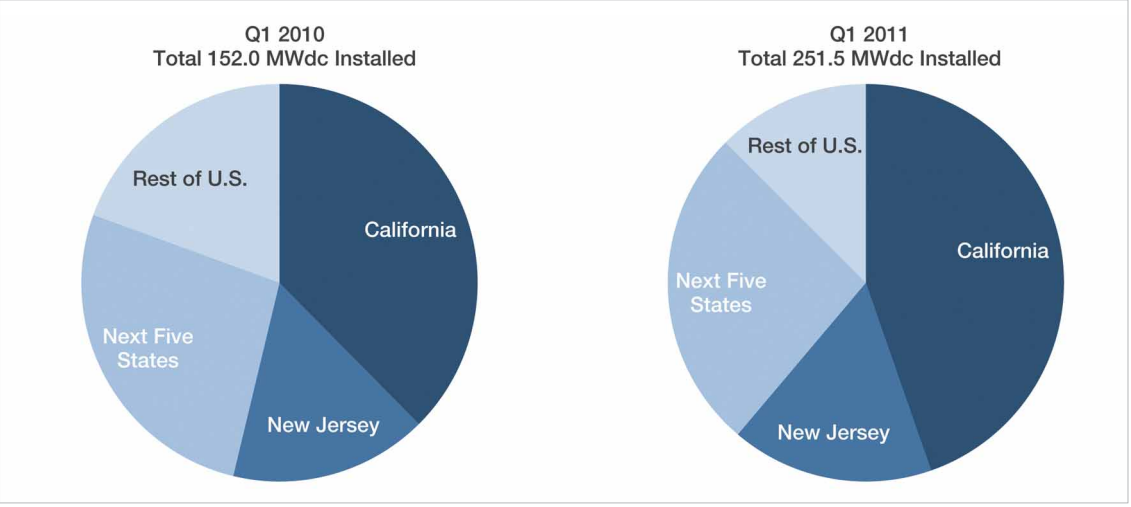
State-by-state, market segment-by-segment data is available in the full report.

2.1.2 State Trends

The U.S. PV market remains relatively concentrated in a few key states, although the market has been experiencing rapid geographic expansion over the past few years. Whereas California comprised around 80% of total installations in 2004-2005, by 2010 it accounted for less than 30% of the national market. Figure 2-4 examines the state of market diversification. In Q1 2010, the top seven states (California, New

Jersey and five others) comprised 81% of total installations. In Q1 2011, this number actually increased to 88%, implying that the leading markets have been gaining even more share. It should also be noted that few utility installations were completed in Q1, so fewer large individual projects are skewing the results. These gains came almost entirely from California, which increased from 38% to 45% year-over-year, while New Jersey and the next five states remained virtually even. Over the course of 2011, we expect the market to shift back toward the top markets outside California, and we will continue to track the state of market diversification on a quarterly basis.

Figure 2-4: The Status of Market Diversification



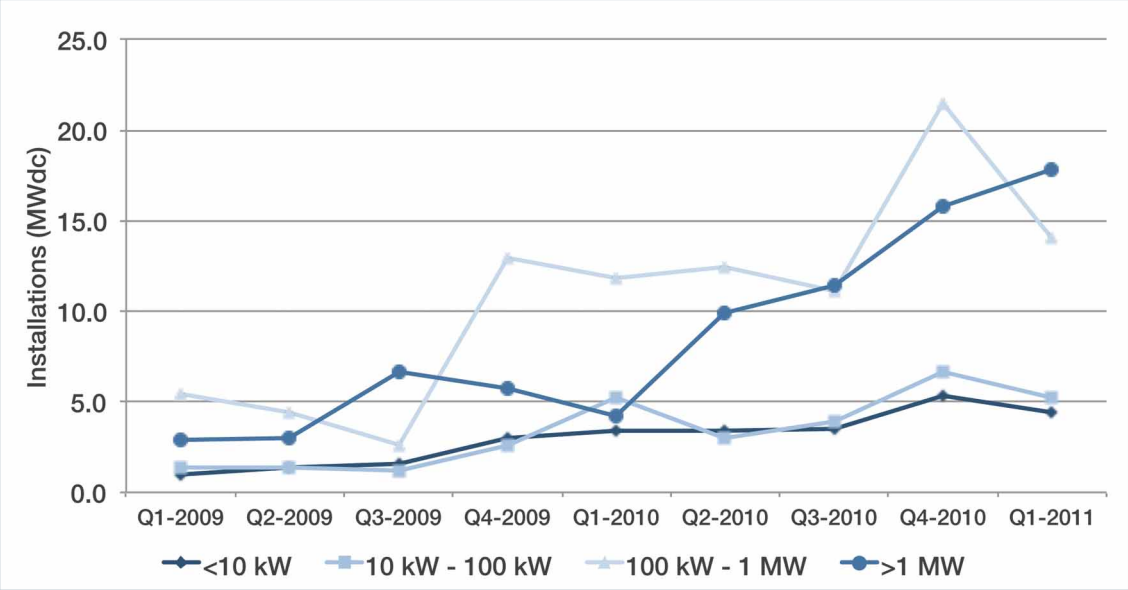
2.1.3 State Highlight: New Jersey (Full Report Contains Similar Analysis on Five Additional States)

New Jersey was undoubtedly the strongest growth market in 2010 and into early 2011. In Q1 2011, the state installed 42 MW, representing 49% growth over Q1 2010. As shown in Figure 2-5, New Jersey has primarily become a market for non-residential projects over 100 kW, and the most growth over the past few quarters has been in larger projects over 1 MW. New Jersey has the nation's most robust and mature SREC market, along with the best availability for long-term SREC contracts, which make project finance much easier to attain.

Indeed, spot SREC prices have remained high through Q1 2011. However, the outlook for the New Jersey market is decidedly more negative, with a likely SREC oversupply taking hold by the end of 2011. The market has begun to awake to this likelihood. Developers report that, while spot prices for SRECs have remained high, contract prices have started to come down substantially. In addition, overall demand for multi-year SREC strips has fallen and developers are finding it more difficult to offload their SRECs for new projects. The two

remaining questions are: when will the market begin to soften, and for how long? Based on average cycle times for NJ projects, we expect to see the biggest impacts of oversupply in Q4 2011/Q1 2012, during which time the NJ market will likely cease growth.

Figure 2-5: New Jersey Installations by System Size, 2009-Q1 2011



SREC Price Data and Market Forecast Available in Full Report

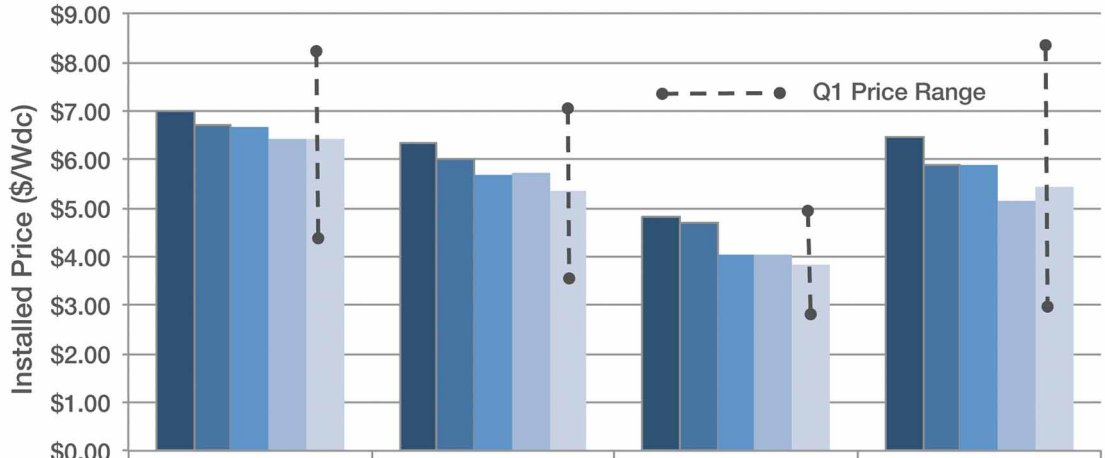
2.2 INSTALLED PRICE

While average installed prices fell across all market segments, utility installations, the segment with the lowest cost per watt, only accounted for 13% of total installed capacity in Q1 2011 compared to 46% in Q4 2010, which skewed the overall blended average price slightly upward. National weighted-average system prices increased by 6% from Q4 2010 to Q1 2011, rising from $5.13/W to $5.45/W.

- **RESIDENTIAL** system prices remained virtually flat from Q4 2010 to Q1 2011, with the national average installed price dropping from $6.42/W to $6.40/W. Residential system prices have always been slower to adjust downward following module price declines, as the impact of the module price must travel through a more extended and disperse value chain (distributors, integrators, electrical contractors, etc.) before appearing in installed prices. In addition, the higher proportion of non-component costs associated with residential systems leaves more work to be done in terms of reducing soft costs than in awaiting module price drops.

- **NON-RESIDENTIAL** system prices fell by just over 6% from Q4 2010 to Q1 2011, dropping from $5.71/W to $5.35/W. This significant drop in price is a direct result of a massive increase in non-residential installed capacity from Q4 2010 to Q1 2011, mostly in California. As CSI program payouts have steadily declined, integrators have been forced to decrease installed price quotes in order to continue offering attractive customer terms. Integrators have also shifted their focus in the commercial market to streamlining project development and installation, which brought the CA price down from $6.03/W in Q4 2010 to $5.30/W in Q1 2011. Prices have also come down in other major markets such as New Jersey and Pennsylvania.
- **UTILITY** system prices continued to fall for the fifth quarter in a row, dropping from $4.05/W in Q4 2010 to $3.85/W in Q1 2011. This reduction in costs is a result of continued decreases in module prices, especially when purchased in large quantities, as well as more efficient project development and construction processes.

Figure 2-6: National Weighted Average System Prices, 2010-Q1 2011



	Residential	Non-Residential	Utility	Blended
Q1 2010	$6.98	$6.36	$4.80	$6.45
Q2 2010	$6.72	$6.00	$4.70	$5.88
Q3 2010	$6.66	$5.68	$4.05	$5.87
Q4 2010	$6.42	$5.71	$4.05	$5.13
Q1 2011	$6.41	$5.35	$3.85	$5.45

2.3 MANUFACTURING PRODUCTION

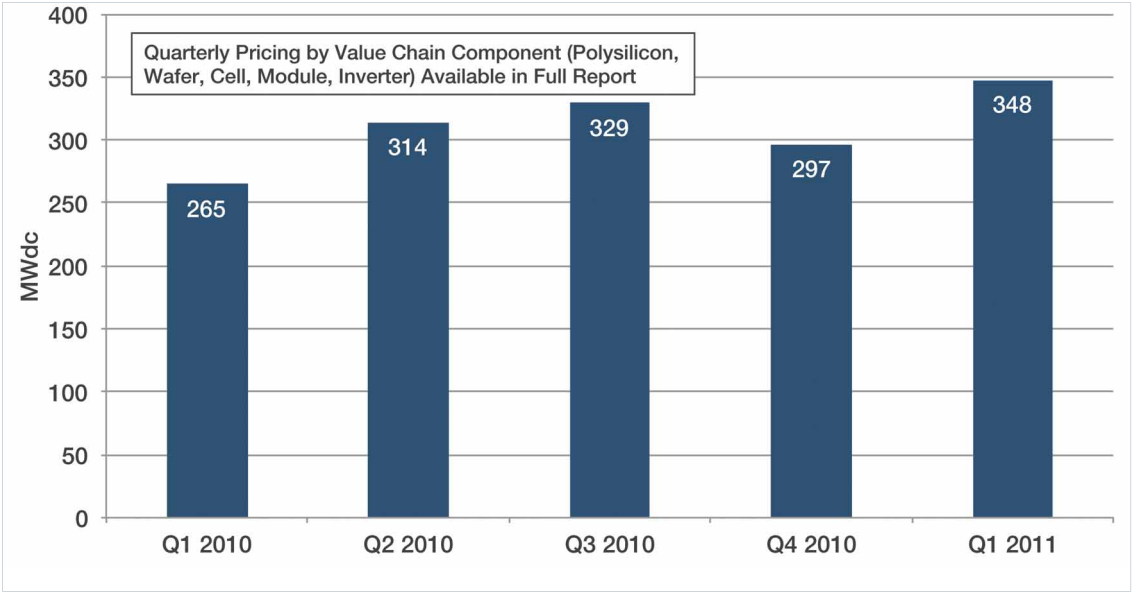
The first quarter of 2010 shows two concurrent and contrasting trends with regard to U.S. PV manufacturing. On one hand, production from export-oriented firms and facilities dipped quite materially on account of soft demand conditions in the key feed-in tariff

markets of Germany and Italy through the first few months of the year. At the same time, plants that serve the domestic market enjoyed far healthier utilization of manufacturing capacity given a robust demand environment in the U.S. SolarWorld, for example, which has a strong historical presence in the domestic market, attributed the 32 percent growth in its overall wafer and module shipments to its strong performance especially in the U.S. market. The natural question is why other U.S. producers did not follow suit and allocate greater production stateside. In short, the U.S. has proven to be a difficult market to penetrate, and merely having a domestic manufacturing presence is not sufficient.

Domestic module production in Q1 2011 amounted to 348 MW, 17% above Q4 2010. As discussed previously, export-oriented firms and facilities witnessed a slowdown in production, while steady growth was seen in the case of producers that are more heavily weighted toward serving the U.S. market.

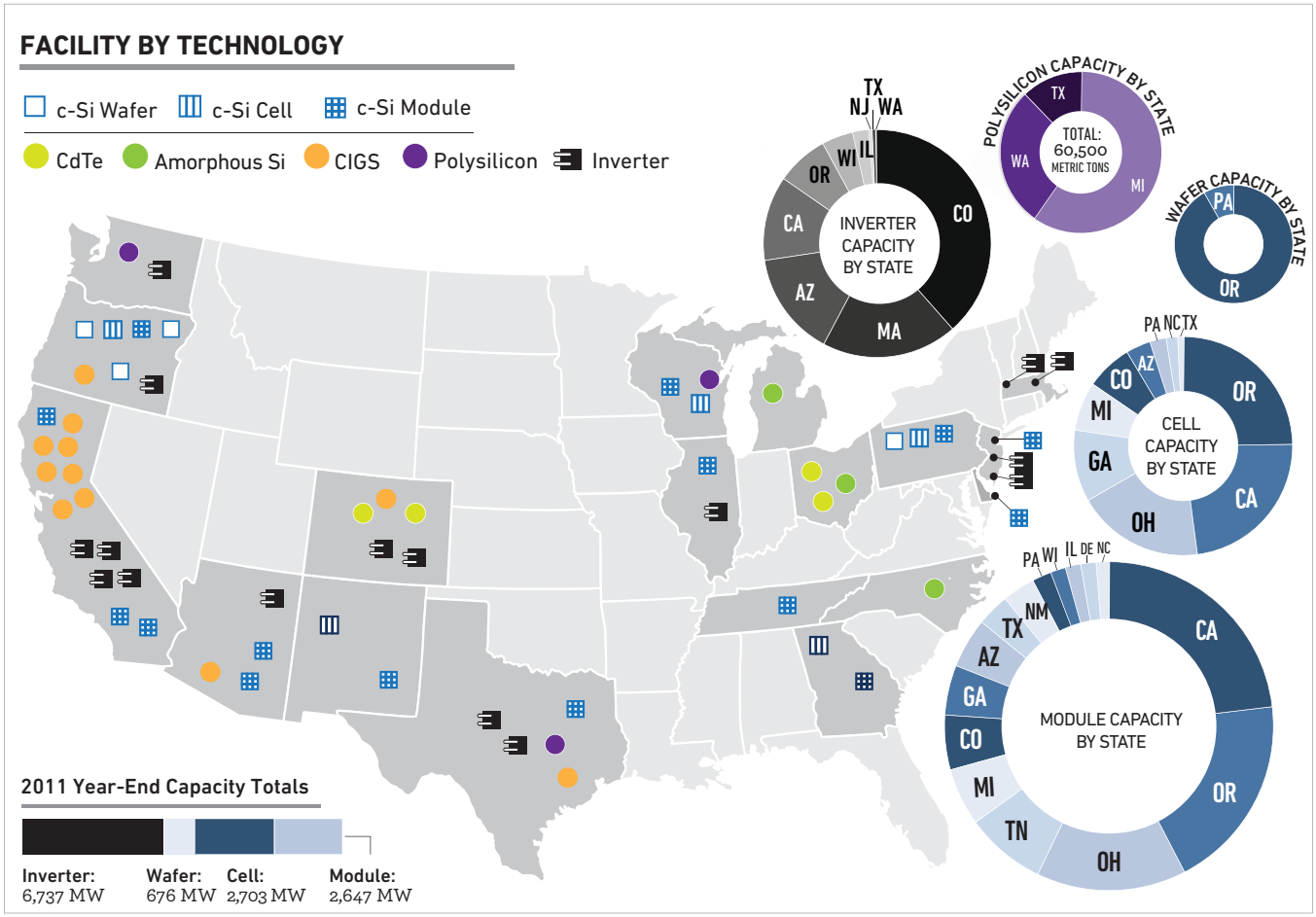
Looking to April and May, these trends continued. Foreign demand remained sluggish, with shipments into the Italian market almost coming to a complete standstill due to uncertainty surrounding the fate of the feed-in tariff program there. Ballooning inventory levels at facilities serving the export markets will therefore ensure that production out of these facilities remains depressed, while those firms that have developed sales channels into the U.S. market are likely to have increased their domestic allocations further still. Given that allocations were a significant constraining factor to U.S. demand in 2010 (on account of booming demand from higher-priced feed-in tariff markets), this increased supply should serve to bolster the growth in domestic installations in 2011.

Figure 2-7: U.S. PV Module Production, Q1 2010 - Q1 2011



The map below shows the location of active domestic PV manufacturing facilities. There are at least 55 active facilities manufacturing PV polysilicon and components (wafers, cells, modules, inverters) spread across 19 states in the U.S. This does not include new plant announcements, such as those from Stion, First Solar, SoloPower, Abound and others. As can be seen, a great many of these are located in California due to its leadership position as an end-market, as well as in the adjacent states of Oregon and Arizona, which offer skilled labor and strong policy support for PV manufacturers. While the Midwest has historically been somewhat dormant on the PV manufacturing front, recent plant announcements in Wisconsin, Indiana, and Illinois suggest that this is changing quickly. The geographic shift towards the Midwest seems to be taking place at the expense of states on the Eastern seaboard such as Massachusetts, Maryland, New York, and New Jersey, which have seen a total of five plant closures in the last year and a half, though domestic manufacturing is increasing on a whole.

Figure 2-8: U.S. Manufacturing Map



In terms of technology trends, the dominant majority of modules produced in the U.S. in Q1 2011 were crystalline silicon (71%) and cadmium telluride (22%), along with small amounts of CIGS (6%) and amorphous Si (1%). Overall thin film share stood at 30%; this figure is expected to increase over the course of 2011 and 2012.

Figure 2-9: U.S. Module Production by Technology, Q1 2010 - Q1 2011

MODULE (MWP)	Q1-2010		Q2-2010		Q3-2010		Q4-2010		Q1-2011	
	Capacity	Production	Capacity	Production	Capacity	Production	Capacity	Production	Capacity	Production
Crystalline Si	206	156	219	202	232	203	259	212	300	247
CdTe	65	58	72	63	77	66	88	69	93	75
CIGS	43	25	46	24	49	23	56	14	76	23
Amorphous Si	57	26	59	25	60	37	19	2	20	3
Total	371	265	396	314	419	329	421	297	489	348

2.4 MARKET OUTLOOK

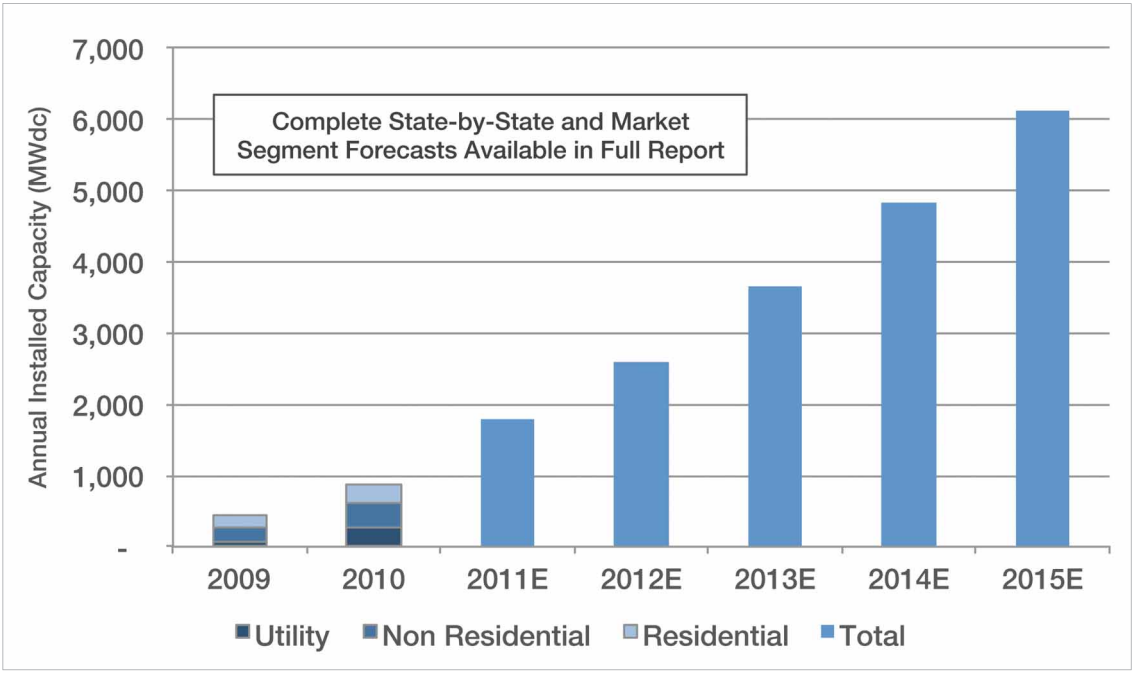
We anticipate another doubling of U.S. PV installations in 2011, in part aided by the steep drop in demand during the first quarter in Italy and Germany. In particular, Italian market uncertainty from February through early May brought the market to a virtual standstill, leaving suppliers and distributors with gigawatts of unshipped inventory. There are three primary impacts that the difficult EU situation had on the U.S. market:

- Increased Capacity Allocation – One of the major bottlenecks for market growth in the U.S. over the past year has been capacity allocation for top-tier modules. While the EU markets were strong, leading suppliers limited their allocations to the less certain U.S. market. However, as EU markets stagnated in Q1, capacity allocations to the U.S. began opening up, and we anticipate that most suppliers will ultimately ship more product into the U.S. in 2011 than they expected as of late last year.
- Falling Module/Inverter Prices – The biggest impact is on pricing, which was discussed previously. The U.S. market is not as demand-elastic as Germany – in other words, small changes in price do not result in large demand swings – but the step-function decline in module prices in early 2011 will certainly open up additional projects. One area in which this is especially true is in California non-residential projects, where the lack of CSI incentives has made project economics much tighter and small module price declines can make or break a new project.

- Greater Supplier Competition – Finally, supplier competition in the U.S. has reached new heights as most manufacturers are under pressure to increase their U.S. market presence. This will serve to further increase to competition in the U.S. market.

All these factors are positive signs for the U.S. market and have prompted us to increase our U.S. market forecasts for 2011 and 2012. However, it should be noted that we still do not anticipate a single "boom" year such as those experienced in Spain in 2009, in the Czech Republic in 2010 and in Germany in 2009-2010. The U.S. market remains driven as much by state-level market dynamics as it does by pricing and supplier competition. For example, even the expected module price declines are unlikely to save the Pennsylvania market from its stagnation. Similarly, Arizona will remain constrained by rebate funding availability in APS and SRP territories.

Figure 2-10: U.S. PV Demand Forecast, 2009-2015

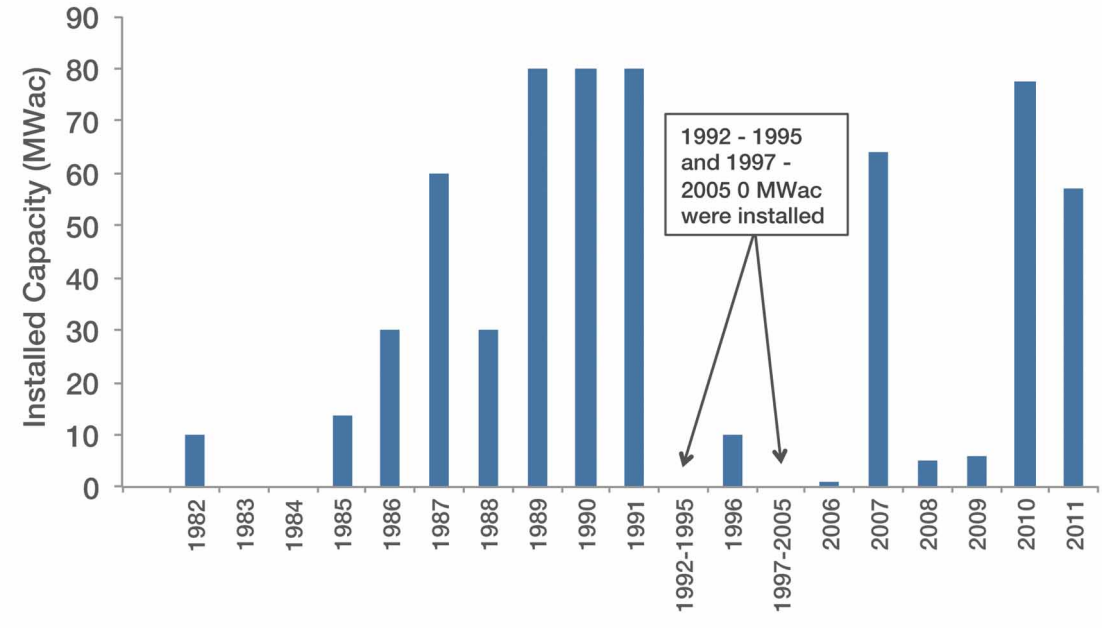


On the whole, the U.S. is currently the strongest, most stable national growth market for PV. This is reflected both in the numbers and in the rhetoric from global suppliers, distributors, and developers, all of which are bullish on near-term U.S. demand. By the end of 2011, the U.S. market has the potential to nearly double its global market share and support a greater diversity of installation types than has been previously seen in any leading demand center.

3 CONCENTRATING SOLAR

Concentrating solar includes both thermal plants, which we will reference as concentrating solar power (CSP), and concentrating photovoltaic (CPV) systems. Whereas CSP systems concentrate sunlight to heat water or another fluid that subsequently generates steam to power a turbine, CPV systems focus the sun's light on a photovoltaic cell to generate electricity directly. In the U.S., concentrating solar experienced a burst of project activity in California in the 1980s, and then went quiet for two decades. But there is great potential for concentrating solar in the U.S., which is reflected in the more than 9 GW project pipeline under development. Should growth of concentrating solar continue, the U.S. could once again be at the top of the global market, retaking the title from Spain, which has led all others in installations in recent years.

Figure 3-2: Concentrating Solar Installed Capacity, 1982-2011



3.1 INSTALLATIONS

In Q1 2011, no concentrating solar projects came online in the U.S. However, since the end of 2010 through mid-May 2011, some important milestones have been hit with regard to the development of large-scale projects in the U.S.

Figure 3-3: Major U.S. Concentrating Solar Project Development Highlights

MAJOR US CONCENTRATING SOLAR PROJECT DEVELOPMENT HIGHLIGHTS						
Project	State	Technology	Capacity (MW-ac)	Construction	Expected Completion	Project Status Update
Blythe Phase I	CA	CSP	484	Dec-10	2013	Conditional DOE loan guarantee offer of $2.1 billion in March
Ivanpah	CA	CSP	370	Oct-10	2012-2013	Closed DOE loan guarantee for $1.6 billion in April 2011
Solana	AZ	CSP	250	Dec-10	2012	Construction underway as of Q4 2010
Mojave Solar Project	CA	CSP	250	Dec-10	2013	
Beacon Solar	CA	CSP	250		2012	
Imperial Solar Energy Center West	CA	CPV	150		2015	Long term PPA signed with California utility
Rice Solar Energy	CA	CSP	150	Sep-11	2013	Approved by California CEC December 2010
Crescent Dunes Solar Energy Project	NV	CSP	100	Jun-11	2013	Conditional DOE loan guarantee offer of $734 million in May
Alamosa Solar	CO	CPV	30		2011	Conditional DOE loan guarantee offer of $90.6 million in May
U. of AZ Tech Park	AZ	CSP	5		2011	
U. of AZ Tech Park	AZ	CPV	2		Apr-11	The nation's largest CPV installation was completed at the University of Arizona's Solar Zone

Some of the development highlights include:

- The 484 MW Blythe Phase I plant was offered a conditional $2.1 billion loan guarantee.
- Just after the close of Q1, the DOE finalized a $1.6 billion loan guarantee for the 370 MW Ivanpah plant, which bolsters our confidence that the first phase will come online in 2012.
- Both the Crescent dunes CSP and Alamosa Solar CPV plants received conditional DOE loan guarantees just after the close of Q1.

3.2 OUTLOOK

In 2011, it is expected that 57 MW of CSP and CPV projects will come online in the U.S, down from 78 MW in 2010. Most of the capacity expansion will come from the 30 MW CPV Alamosa Solar project and 5 MW CSP University of Arizona Solar Tech Park project. The next year, 2012, should see the completion of at least one of BrightSource's Ivanpah towers, and in 2013, seven or eight large plants are scheduled to come online. In later years, greater uncertainty regarding financing, permitting and approvals surrounds the pipeline. The current pipeline of concentrating solar projects is over 9,000 MW, over 2,400 MW of which already have signed PPAs.

4 SOLAR HEATING AND COOLING

The solar heating and cooling (SHC) category is composed of two distinct markets: solar water and space heating (SWH) and solar pool heating (SPH). The domestic SWH market has grown on an annual basis since 2004. The SPH market hit a peak in 2006, and while it shrank significantly in the period 2007-2009, in 2010 it made a slight recovery with indications that this upward trend will continue in the near term.

4.1 MARKET UPDATE

Incentive changes in major markets are helping to drive installations. In Hawaii, which was the domestic market leader in 2008, a mandate (with loopholes) that systems must be installed on new homes rather than offering incentives for any system severely impacted installation numbers in 2009 and 2010. But in Q1 2011, the Hawaii Energy Efficiency (HEE) program doubled the incentive from $750 per installation to $1500 per installation using ARRA funds. The amount allotted was reserved by interested participants almost immediately. Through the end of July, HEE is offering an incentive of $1000 per installation. In the month of March, installation rates were back to up to 2008 levels. In California, the CSI's relatively new solar water heating incentive of up to $1,875 per installation for residential homes and $500,000 per installation for commercial and multi-family structures is helping to drive increased interest in solar water heating that we saw begin in 2010.

Arizona's market also remains quite strong, with most utilities offering production incentives that can cover up to half of a system's costs. Look for Arizona to be a leading market by the end of 2011.

References data, charts or analysis from this Executive Summary should be cited to the "SEIA/GTM Research U.S. Solar Market Insight".

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All figures sourced from GTM Research. For more detail on methodology and sources, visit www.gtmresearch.com/solarinsight.

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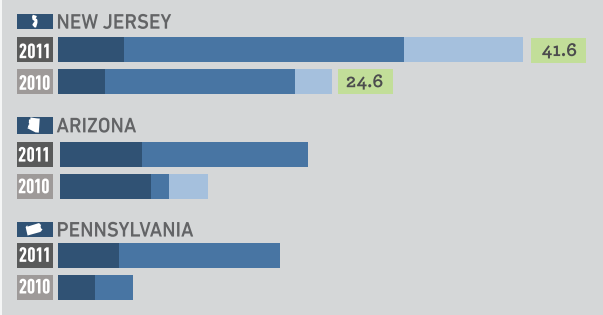

- Installations by market segment for the top 20 states
- Installed cost by market segment for each state
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- Component pricing across the value chain
- Manufacturing capacity & production by component by state
- Demand projections to 2015 by technology, market segment & state

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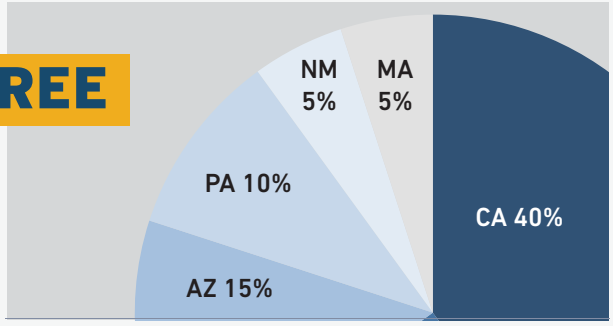

- National aggregate capacity additions
- National aggregate number of installations
- National weighted average installed price
- National aggregate manufacturing production

Please find a more detailed content and pricing matrix on the reverse side of this page.

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