

Global Solar Market Outlook

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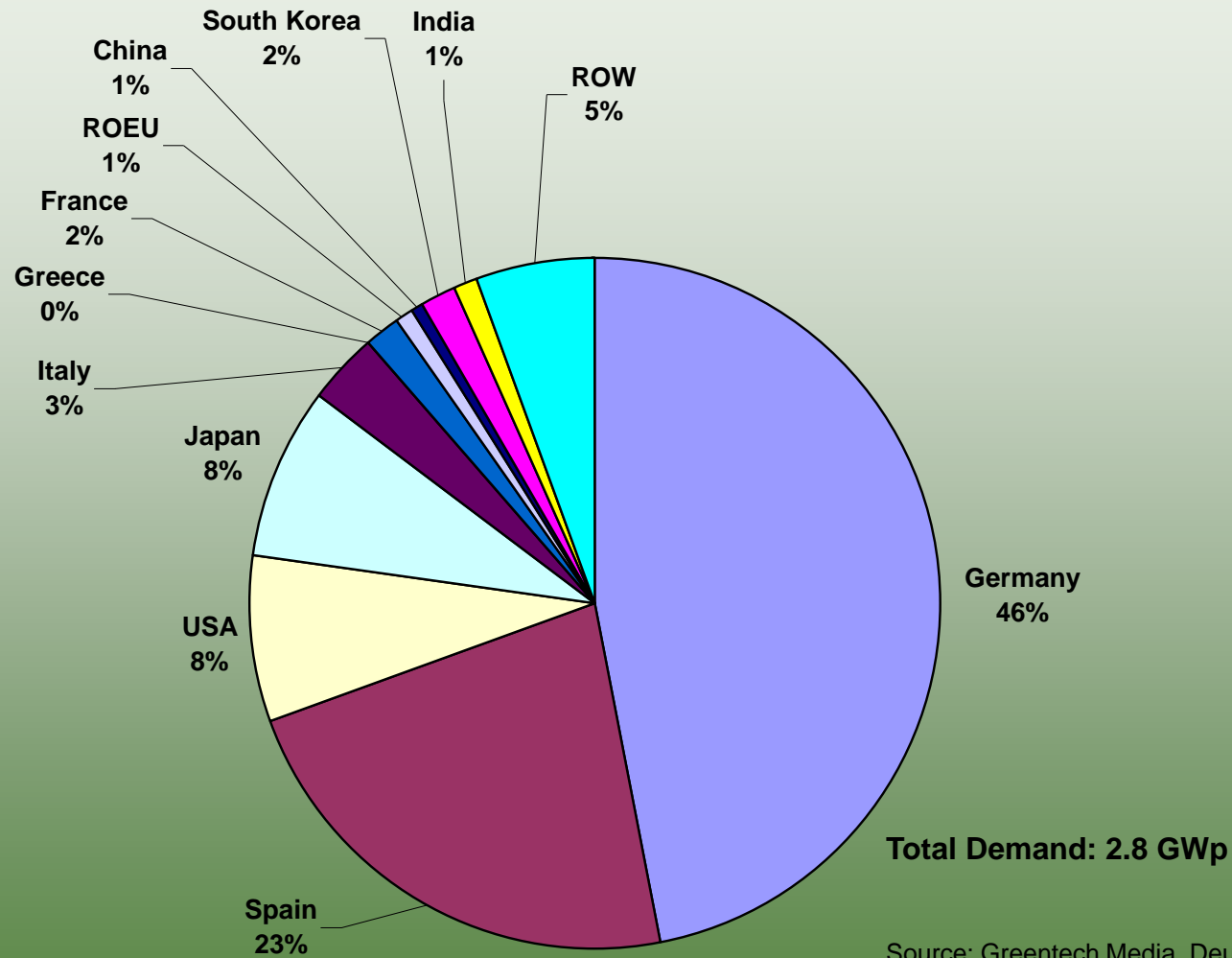
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Solar Power and World Energy Outlook

- **Incredible Growth**
 - Common refrain is “unlimited demand”
 - >30% annual growth for decades to come
 - A \$20B market today, a \$500B market in 20 years?
- **No technical hurdles, only scale of production, and power of incentives**
- **10-15 years to become a major portion of new generation assets**
- **25-50 years to provide a material amount of world energy**
- **Global Market is driven by the policy moves of key players**
 - Germany and Spain have led the market of late, but will slow in 2009
 - Italy and S. Korea should become the next growth leaders
 - France and Greece have great potential
 - US will lag until late 2009 or 2010 when comprehensive climate legislation emerges
 - Japan will lag, but remain a steady demand contributor

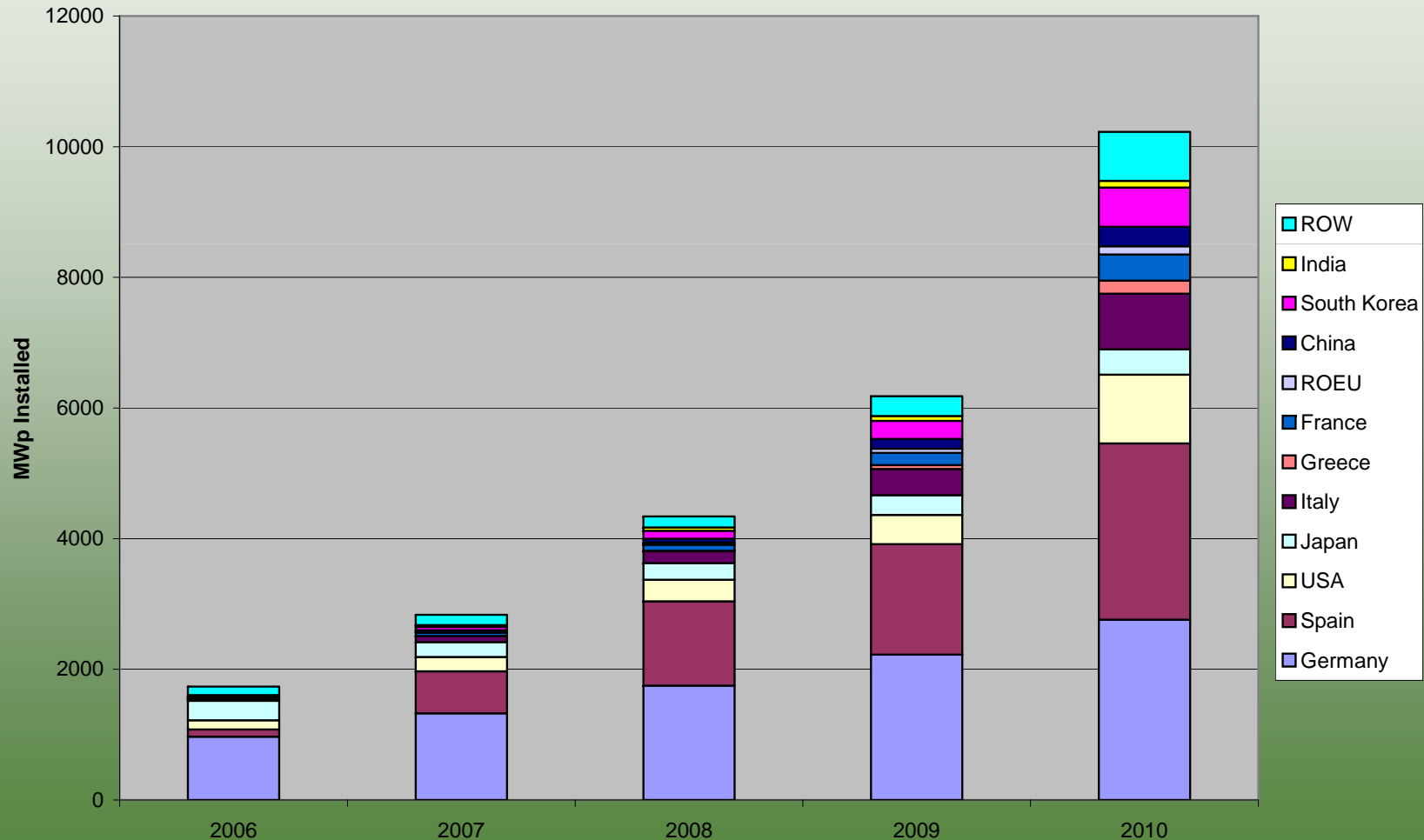
Global PV Demand Snapshot: 2007



Source: Greentech Media, Deutsche Bank, company reports

Looking at Global PV Demand through 2010

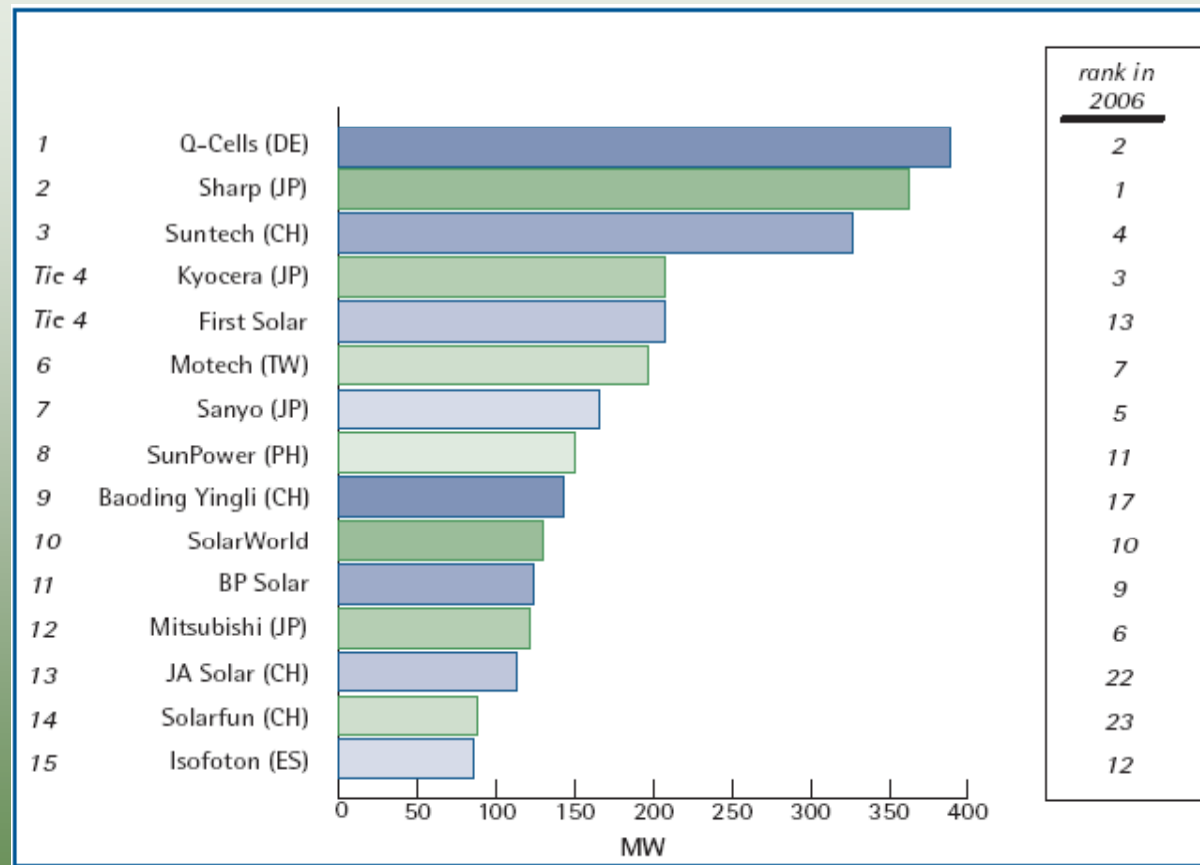
Global Solar PV Demand 2006-2010



Source: Greentech Media, Deutsche Bank, company reports

Top 15 Producers - 2007

- No sign of consolidation
- Second tier majors showing dynamic growth
 - Chinese, Taiwanese, US owned producers



All figures in MW-dc of Cells

Source: Prometheus Institute

US Producers - 2007

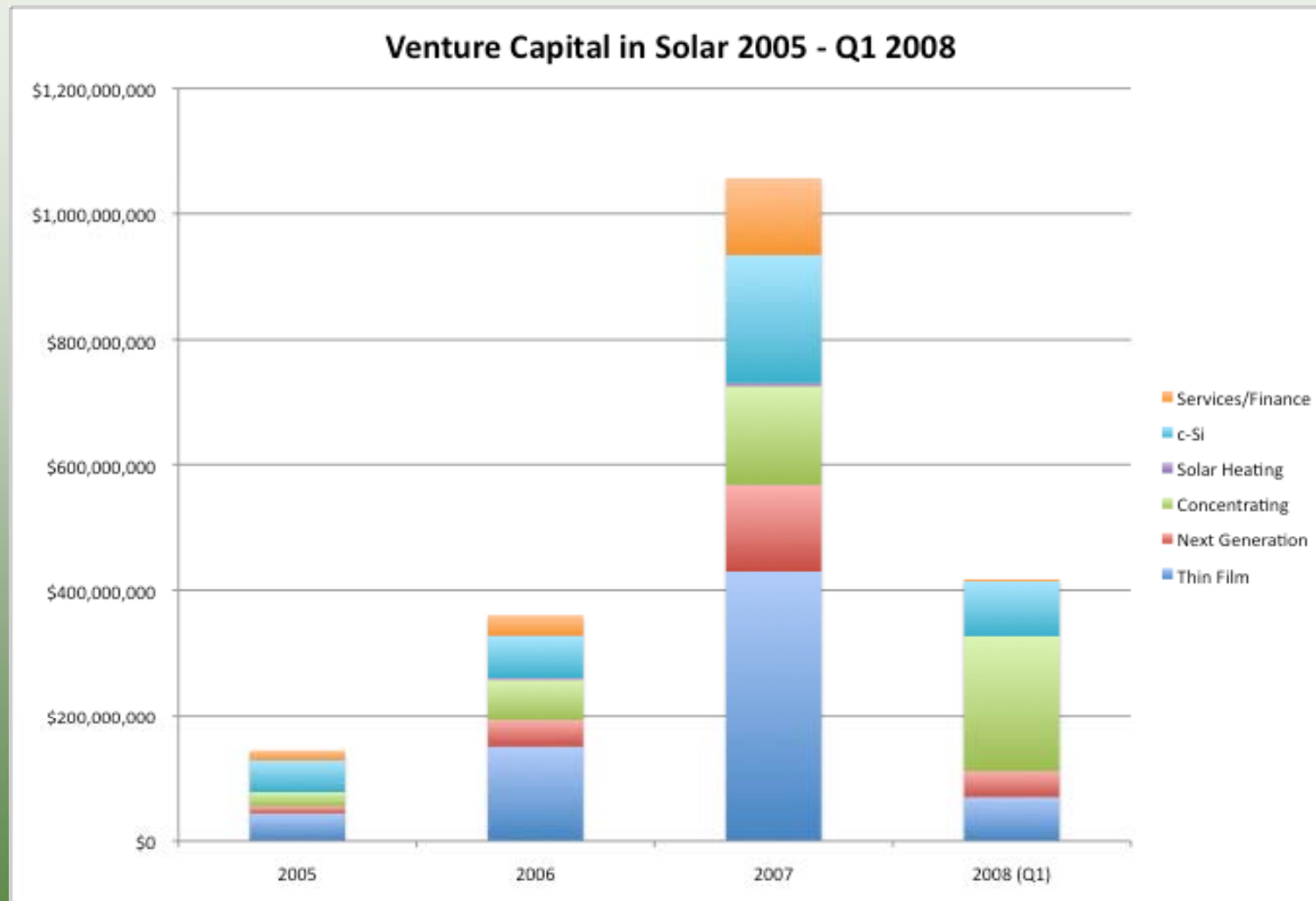
Company	2001	2002	2003	2004	2005	2006	2007	06 to 07 Growth	Capacity YE07	Capacity YE08
First Solar	-	-	3.0	6.0	20.0	60.0	120.0	100%	135.0	150.0
United Solar OVOONICS	3.8	4.0	7.0	14.0	22.0	28.0	48.0	71%	60.0	120.0
Solarworld CA (Shell Solar)	39.0	46.5	52.0	62.0	42.0	35.0	35.0	0%	45.0	100.0
BP Solar	25.2	31.0	13.4	14.2	22.6	25.6	27.7	8%	40.0	40.0
Evergreen Solar	-	1.9	2.8	6.0	14.0	13.0	16.4	26%	16.0	86.0
Schott Solar	5.0	5.0	4.0	10.0	13.0	13.0	10.0	-23%	15.0	15.0
Global Solar	-	-	2.0	1.0	1.0	2.5	4.0	60%	5.0	40.0
Other	27.3	32.2	18.8	25.5	18.5	2.5	5.0	100%	2.0	65.0
Total	100.3	120.6	103.0	138.7	153.1	179.6	266.1	48%	318.0	616.0
<i>w/o First Solar</i>					<i>133.1</i>	<i>119.6</i>	<i>146.1</i>	<i>22%</i>	<i>183.0</i>	<i>466.0</i>

All figures in MW-dc of Cells

- **US production growth almost completely driven by First Solar**
- **\$2.45 per Watt selling price**
- **Polysilicon shortage pinched majors**

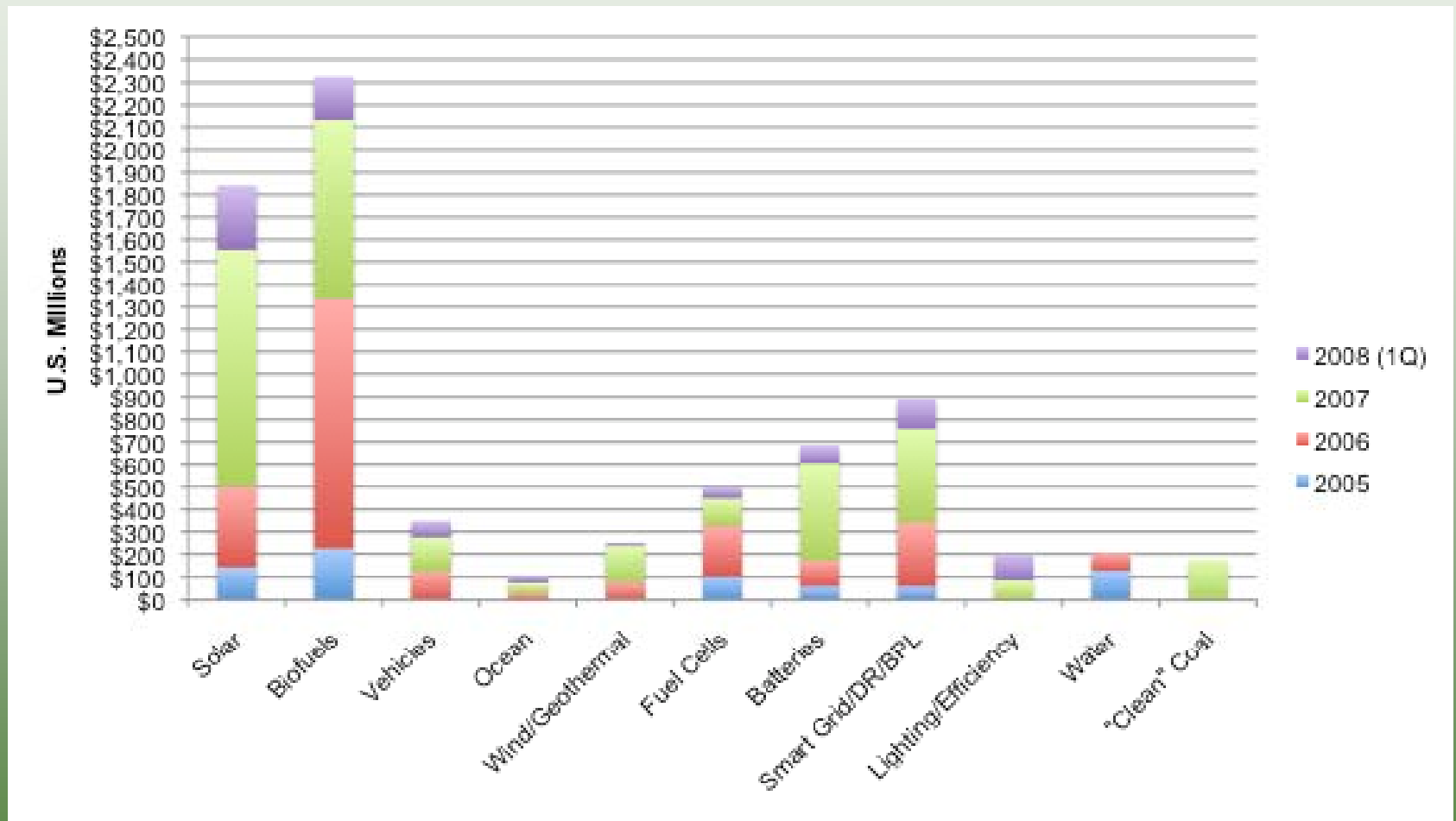
Source: Prometheus Institute

Venture Capital in Solar Has Shifted the Technology Market to the U.S., for Now...



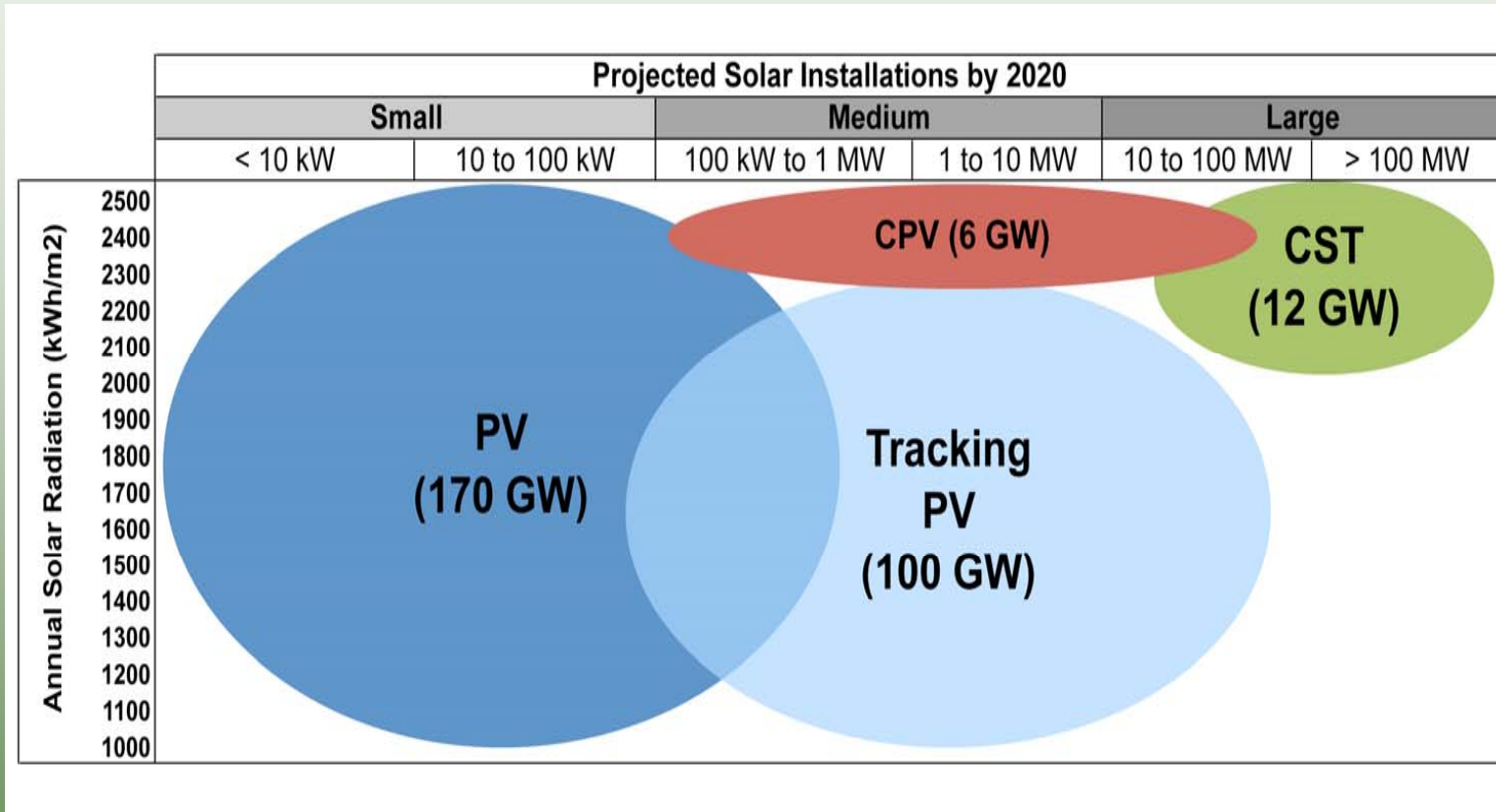
Source: Greentech Media
2008

Solar Remains a Significant and Growing Part of the Greentech Venture Capital Market



Source: Greentech Media
2008

The Global Solar Market is Evolving to Accommodate New Technologies and New Applications



- Residential, commercial rooftop, industrial and utility each have unique requirements where different technologies can excel

Solar Outlook

- **The global solar market has significant momentum, and is not tied to the price of oil alone, or fads**
- **However, the market remains policy driven until grid parity is reached**
 - Policy uncertainty can adversely affect investor willingness to support large-scale installations or new startups
- **The market is diversifying, thanks to the rapid maturation of solar technologies**
 - Thin film solar technology expands the market for PV and accelerates the trend toward grid parity
 - Concentrating solar technology is rapidly being adopted by utilities for centralized power generation
 - Traditional flat-plate PV continues its rapid decline in cost thanks to an influx of suppliers in Asia