



Solar PV Development Strategies in the US, 2008–2020

December 2008

Study Highlights:

Strategy Profiles

- Utilities adopting PV
- PV Independent Power Producers
- PV system integrators
- European developers
- PV installers and developers
- PV investors and financiers

PV Development Opportunities and Trends

- Value chain analysis
- Ownership
- Project size
- Siting and application strategies
- Market segmentation

Solar PV Market Forecasts through 2020

- Forecasts by state through 2012
- Long-term US forecasts through 2020

Competitive Analysis

- Strategy focus based on market maturity
- Pipeline analysis
- Project portfolio evaluation
- Value chain shifts

Market Drivers and Inhibitors

- Regulatory impacts
- Power prices
- Siting issues
- Solar resources
- Transmission

US Solar PV Rankings

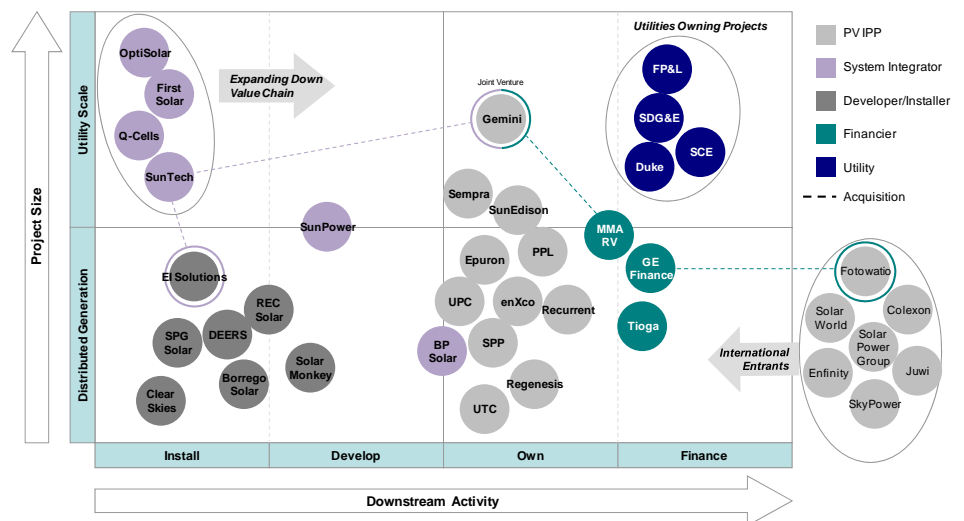
- US solar PV plant development rankings
- US solar PV pipeline analysis
- Power purchaser analysis

Utility-scale and large commercial PV development activities in the US are exploding, and with the October 2008 passage of the 8-year Investment Tax Credit, opportunities are expected to multiply in the years ahead. With utilities diving into the fray—in 2008 alone utilities have announced over 1,200 MW of PV projects—the competitive landscape has never been more confused. As a result, the US PV market is undergoing a myriad of technology, economic, and competitive shifts that will transform the market drastically over the next one to two years.

Through comprehensive analysis of PV market activity in the US, EER's new study, **Solar PV Development Strategies in the US, 2008–2020**, provides critical strategic and tactical support for those seeking to compete in US PV markets: developers, IPPs, utilities, manufacturers, installers, and system integrators. Among the key findings in the study:

- **Increased utility adoption of PV underpins the scaling US market** with utilities employing a mix of ownership and project development strategies. Southern California Edison, San Diego Gas & Electric, and Duke Energy are turning the traditional utility model on its head with large-scale rooftop initiatives.
- **Emerging PV IPP model is sparking US development:** The success of SunEdison's solar service provider model—a build, own, operate strategy offering PPAs to both commercial and utility power purchasers—has spawned a host of aggressive competitors.
- **System integrators such as SunPower, First Solar, and Suntech are expanding along the value chain** to capture emerging opportunities in utility scale and large commercial PV development and even ownership.
- **PV technology evolution is playing out in developer activities:** Thin film technologies are transforming US PV markets—shifting developer procurement strategies will put pressure on the supply chain to react on cost and volume.

Exhibit 5-9 PV Player Positioning



Source: Emerging Energy Research

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 3. US Solar PV Market Forecasts, 2008–2020
 4. US Solar PV Market Analysis
 5. US Solar PV Development Strategies
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EER provides extensive analysis of solar power markets. Additional resources include:

- *Solar PV Development Strategies in Europe 2008-2020 – Market Study*
- *Global Concentrated Solar Power Markets and Strategies 2008/2020 – Market Study*
- *North America Solar Power Advisory Service*
- *Europe Solar Power Advisory Service*

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