



Dimbach, Germany (1.4 MW); With permission from Blitzstrom / Beck Energy

New Jersey's Solar Market Transformation: A Look Ahead

New Jersey Clean Energy Conference, October 2008





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● Forward Looking Statements



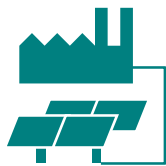
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First Solar Overview



● First Solar Introduction



Founded in 1999, a market leader in utility-scale, commercial and industrial PV



World's largest thin film solar module manufacturer, 5th largest for all solar technologies



Reaching >1 Giga Watt (GW) of annual manufacturing capacity by end of 2009



NASDAQ (FSLR)

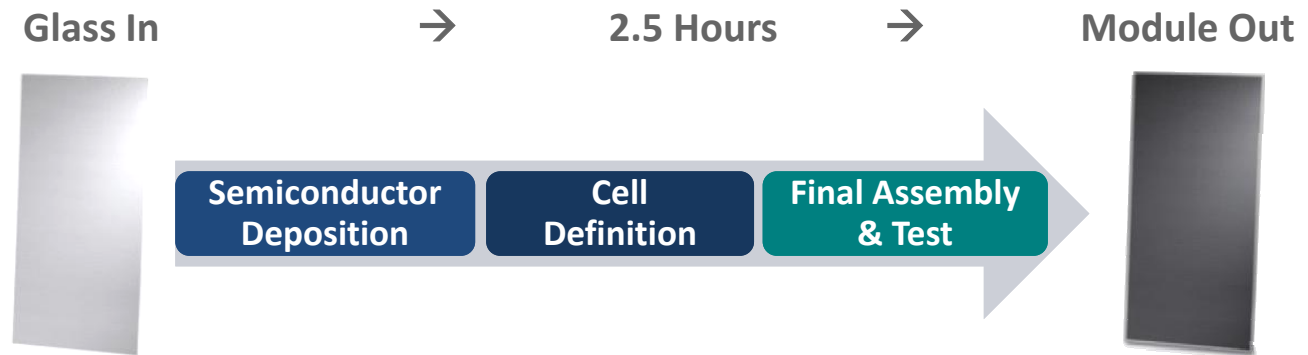


World's lowest cost solar module manufacturer
■ \$1.18/W (Second Quarter 2008)





● The First Solar Solution Module Manufacturing



- Breakthrough continuous, integrated thin-film process
- 99% reduction in high-cost semiconductor
- No semiconductor material shortage
- Cost reduction driven by productivity and technology improvements
- Large (2'x4') substrate vs. 6" wafers



● The First Solar Solution System Solutions

- First Solar specializes in large commercial/industrial and utility-scale PV systems
- Capabilities includes engineering, procurement and construction
- Monitoring & Maintenance (M&M) Program
 - Lifetime M&M service
 - PV Fixed (M&M) pricing enables predictable annual expenses





● Proven Technology

First Solar's Validated Performance

- Over 3.4 GW / \$6 billion currently contracted through 2012
- Extensive module testing and validation before commercial production
- Durable and recyclable frameless glass-glass laminate
- High energy yield in real operating conditions
 - Low temperature coefficient ($-0.25\%/^{\circ}\text{C}$)
 - Excellent low light response
- Proportional shading tolerance in landscape orientation (perpendicular to cells)
- 25 year module power output warranty
- Pre-financed collection & recycling program





● Environmental Responsibility

- Life cycle assessment
- Lowest carbon footprint
- Pre-funded module take back and recycling program
- Environmentally safe





The New Jersey Solar Market



● New Jersey's Solar Market Drivers



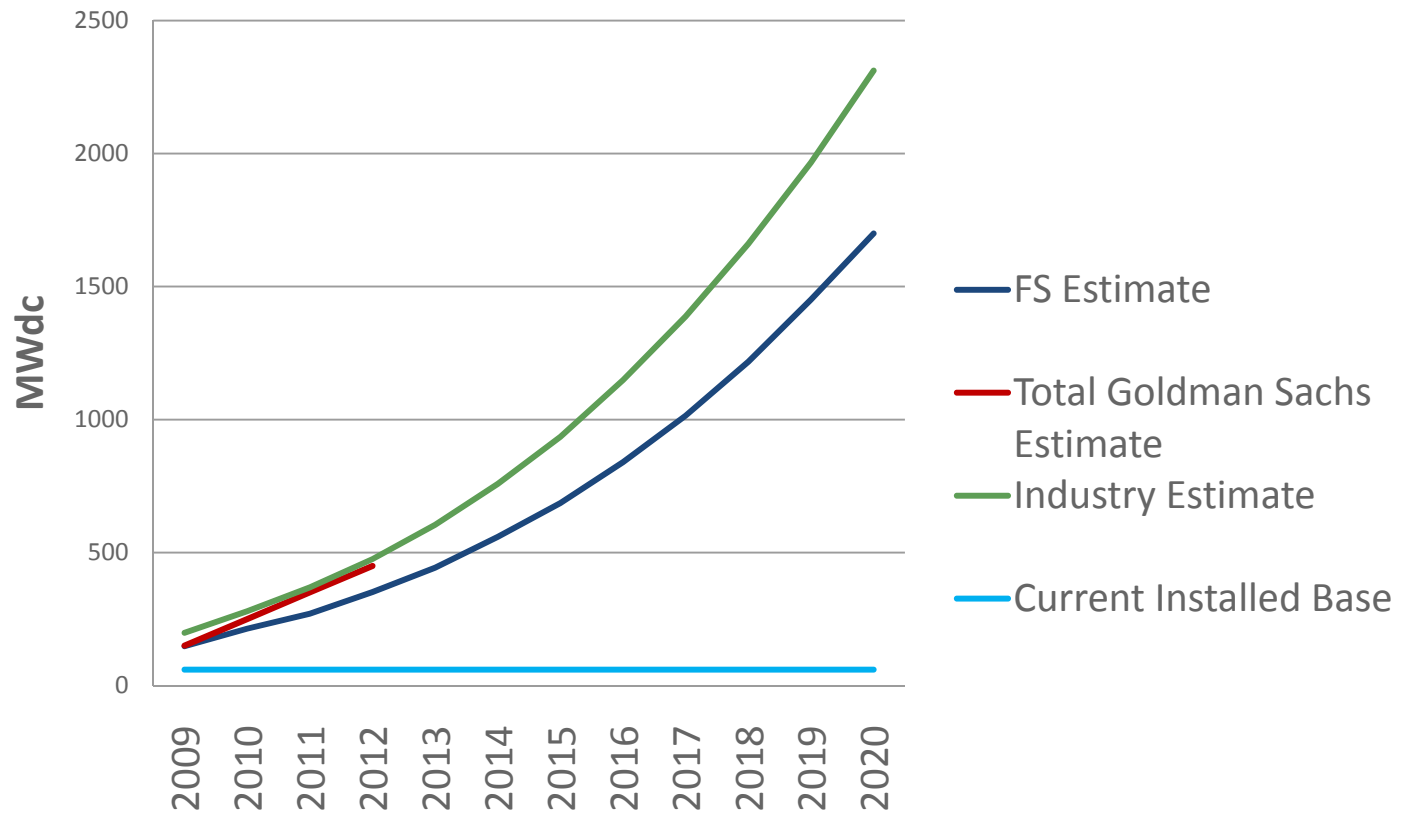
- RPS commitment: 20% by 2020 with 2.12% (\approx 1700 MW) solar carveout
- Strong political support and progressive regulatory structure
- Competitive SREC market and declining SACP encourages lowest cost impact to ratepayers
- Market segmentation provides opportunities for all participants - residential, commercial and industrial, and utility-scale
- RPS obligations apply to all load serving entities not just utilities

Many innovative programs on the horizon

- Community net-metering could promote lower-cost grid-supply generation both at the residential and commercial and industrial level
- Proposed SREC securitization program may foster SREC market stability



● New Jersey Total Solar PV Demand





First Solar's New Jersey Focus



● First Solar's New Jersey Focus



- In November 2007, First Solar acquired Turner Renewable Energy
- First Solar's Bridgewater, New Jersey office now has over 70 employees and is expanding rapidly
- Currently vetting New Jersey business models targeting large commercial and industrial and utility-scale systems
- Facilitated approximately 4 MWdc of 2008 New Jersey projects using First Solar modules
- First Solar can help New Jersey drive down solar costs and expand through:
 - Lower cost modules
 - Larger scale projects
 - Technology that performs well in New Jersey's hot summers and low light conditions



● First Solar's New Jersey Market Approach



- Assessing Different Product Offerings
 - Turnkey Power Plant: First Solar engineers, procures and constructs PV power plant – utility-scale – large industrial
 - System Sales: First Solar provides engineering, modules and balance of system components
 - Monitoring & Maintenance: First Solar monitors and provides all preventative and unscheduled maintenance
- Assessing Potential Market Channels
 - Unregulated utility affiliates
 - Independent power producers
 - Large project developers / integrators
 - Regulated utilities
- Demonstration Projects
 - Demonstration projects underway or in development to test and validate each channels to market



● Project Profile – New Jersey



Site:	Halls Warehouse, South Plainfield NJ
System Size:	1.6 MW
Integrator:	Vanguard Energy Partners
Developer:	enXco



● Representative Projects System Solutions



Site:	Boulder City, NV
System Size:	10 MW (AC)
Completed:	2008 (anticipated)
System Purchaser:	Sempra Generation



Site:	Blythe, CA
System Size:	7.5 MW (AC) (Option to 21 MW)
Completed:	2009 (anticipated)
Power Purchaser:	Southern California Edison



Site:	Fontana, CA
System Size:	2 MW (AC)
Completed:	2008
System Purchaser:	Southern California Edison



New Jersey's Solar Future



● Challenges for the New Jersey Market



- Utility-scale generation can help lower the cost of solar in New Jersey, however:
 - Costs are yet to be proven in New Jersey
 - Potential constraints associated with interconnection
 - Land use issues
 - Labor costs
- Credit Crisis
 - Projects will be more difficult to finance
 - Capital will be more expensive
 - The ability of utilities to take ITC may have an influence
- SREC Uncertainty
 - SREC purchasers and project financiers still unsure of long term SREC value
- Expansion and success of market is dependent on lowering the cost over the long term



● The Outlook for Solar Generation in New Jersey



- New Jersey has a strong framework for solar generation but there is still a gap between what has been targeted and what has been installed
- New Jersey should encourage utility-scale solar which can help lower costs across all segments
- Continued development of the solar regulatory framework will drive greater scale and lower cost solar procurement (e.g. increased solar carve-out under the RPS)
- Solar can emerge as the low cost solution for renewable energy procurement. With a focus on the distributed, commercial and industrial, and utility-scale sectors, solar generation provides both a flexible behind-the-meter and grid supply solution
- First Solar is committed to working with government, stakeholders, generators and consumers to bring the low cost and reliable solar solution to the state of New Jersey and is currently exploring a number of pilot projects to assess how it can best serve the New Jersey market
- New Jersey is well positioned to become the country's leading renewable market and solar is at the forefront of driving the success of this initiative



● First Solar Locations



World Headquarters Tempe, Arizona, USA

Manufacturing

Perrysburg, Ohio, USA
Frankfurt (Oder), Germany
Kulim, Malaysia

Europe

Amsterdam, Netherlands
Business Development

Berlin, Germany
EU Government & Public Affairs

Brussels, Belgium
EU Government & Public Affairs

Mainz, Germany
Sales & Customer Support

Madrid, Spain
Sales & Customer Support

North America

Austin, Texas
System Solutions

Bridgewater, New Jersey
System Solutions

New York, New York
Corporate Development

