



New Jersey's Solar REC Market

The 2006 New Jersey
Clean Energy Conference
& Leadership Awards **Clean Energy. Smart Business.**



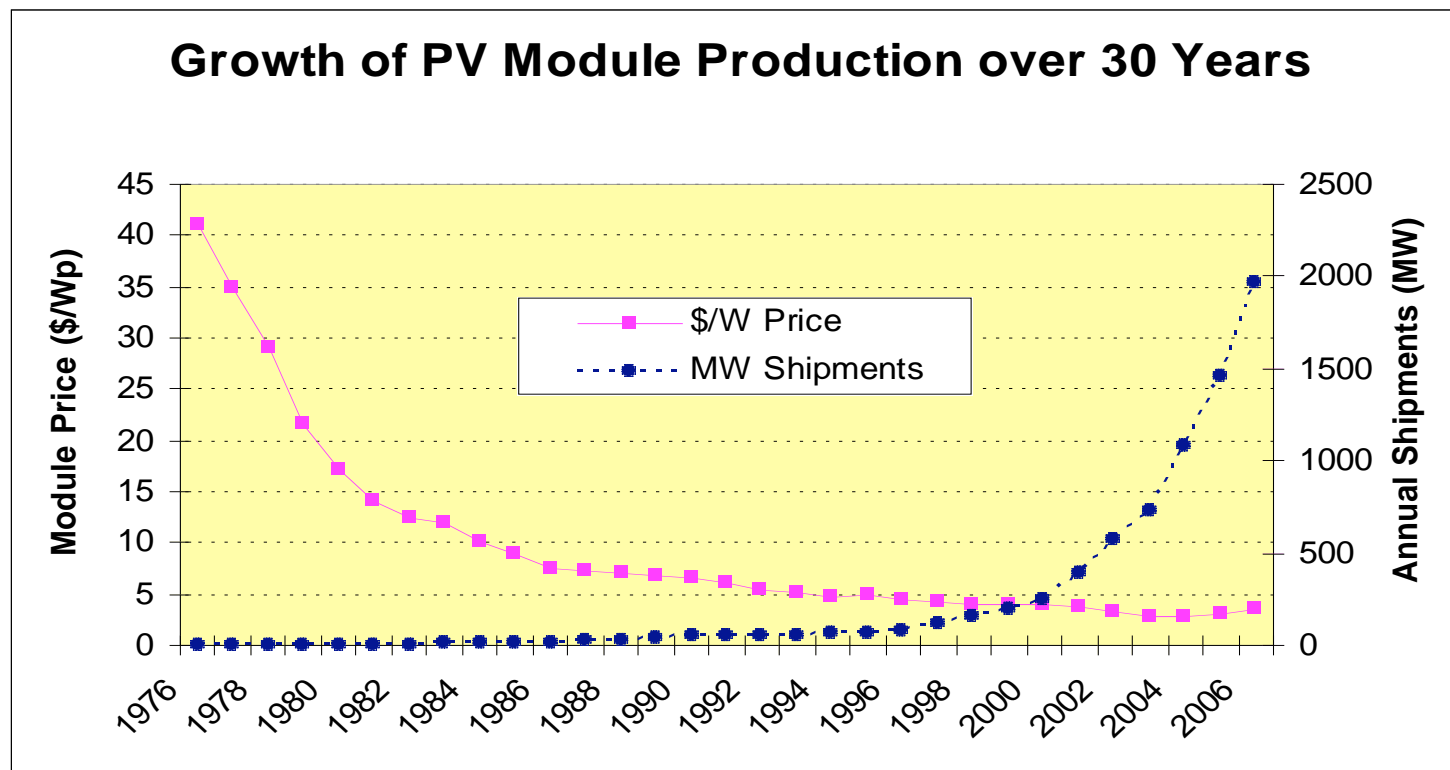
SEPTEMBER 18 / 06
Hyatt Regency / New Brunswick, NJ

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Thomas Leyden
Vice President, PowerLight Corp.

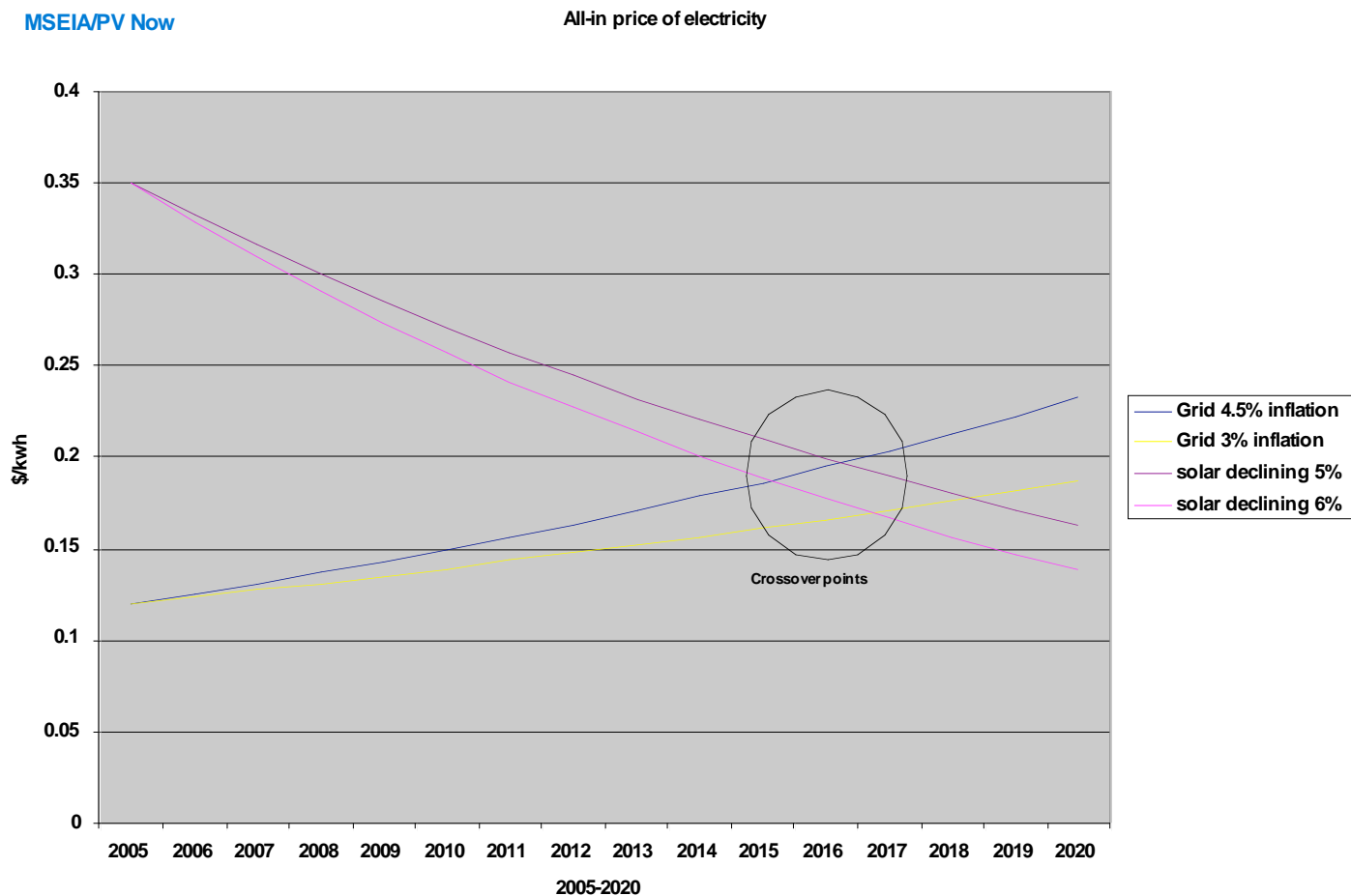
PV Basics

PV prices have fallen 10x in the last 30 years



Solar Becoming Viable, Especially As Peaking Power

Sustained support will bring PV to the crossover point

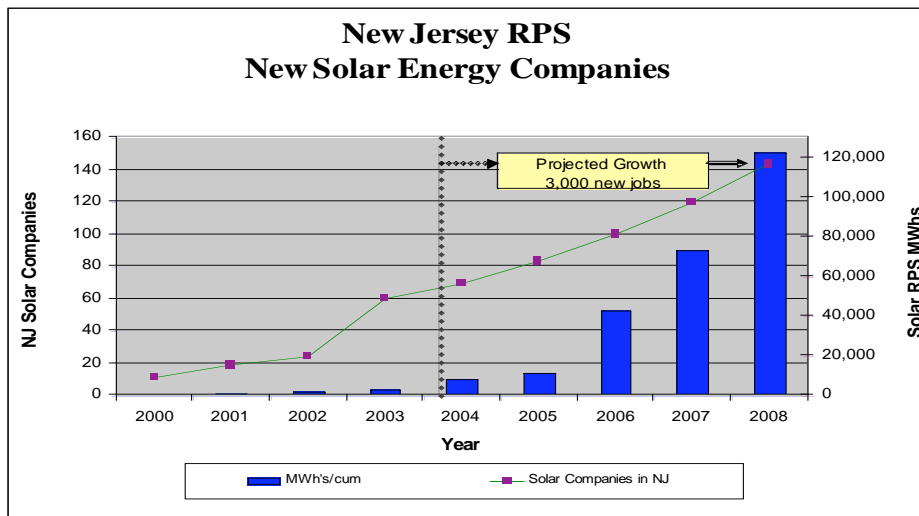


NJ Policies Create A National Leader

Existing NJ Policies Bridge the Price Gap and Remove Barriers:

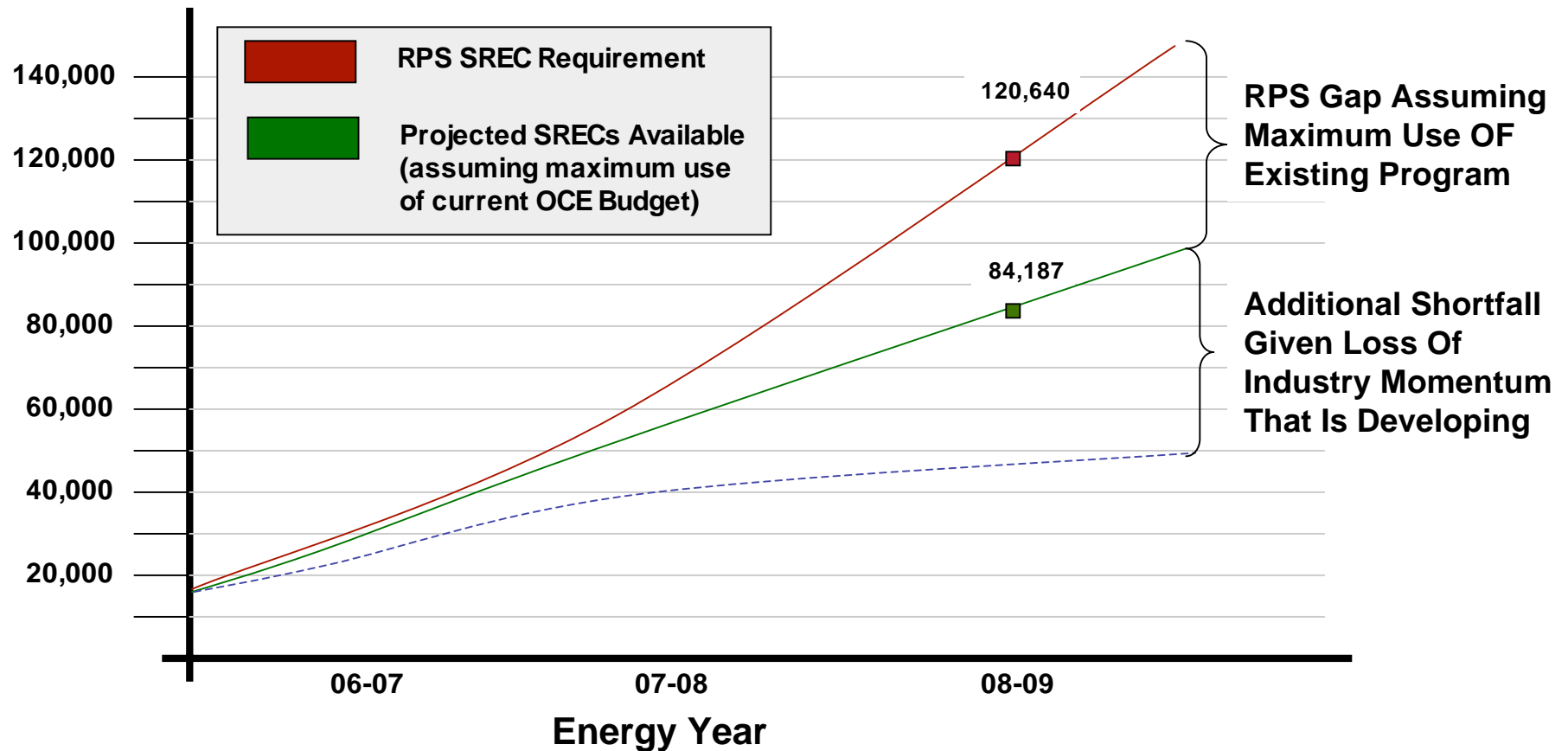
Market Incubator Components:

- Rebate programs via SBC funding
- Early REC market
- Net metering and simplified interconnection



***780% solar industry growth
over the last 5 years***

Solar Industry At Crossroads: Opportunity And Risks

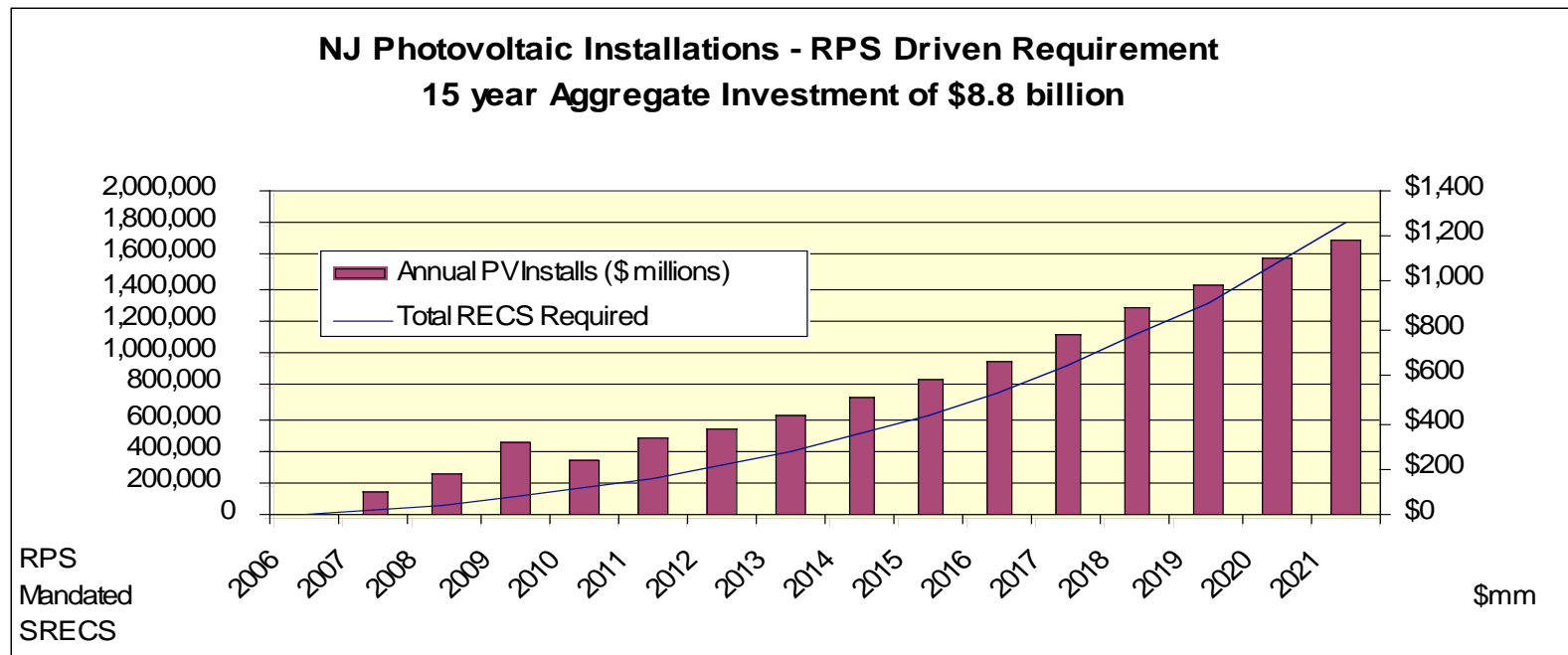


Urgent Priority: Ensure continuity of the existing program, and accelerate migration to a market-based environment that can create scale.

RPS Drives Rapid Growth and Investment in NJ

Opportunity For Market-Based Growth:

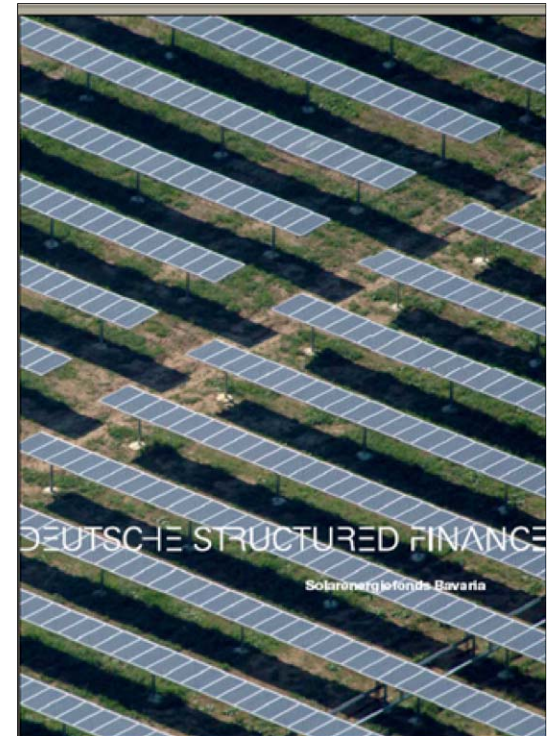
- RPS with solar carve out and ACP sets the stage
- New 1,500 MW goal by 2021 lays the foundation for large scale investment



Feed-in Tariffs Around the World

1. Germany:

- 20-year feed in tariff
- ~\$0.50/kWh with automatic decline of 6% per year
- 600 MW installed in 2005
- Cumulatively, 1.400 MW at the end of 2005
- Still worldwide leader, but slowing growth (decreasing tariff and high module prices)
- Mostly rooftops but many multi-MW ground mounted systems



Feed-in Tariffs Around the World

2. Spain:

- 25-year feed-in tariff -- established in March 2004
- \$0.25 - \$0.50/kWh depending on system size
- Approx. 15 MW were installed in 2005
- Cumulatively, 30 MW at the end of 2005
- Current PV cap is 400 MW, estimated to be reached by 2010
- Mostly developed in 100 kW increments to get higher tariff



Feed-in Tariffs Around the World

3. Portugal

- 15-year feed-in tariff
- \$0.26 - \$0.49/kWh
- Cumulatively 5 MW installed at the end of 2005
- Current Cap of 150 MW
- Serpa at 11 MW will be the largest project in Portugal



Feed-in Tariffs Around the World

4. Italy

- 20-year feed-in tariff as of August 2005 – reverse auction
- \$0.52 - \$0.58 range depending on bid
- Cumulatively around 30 MWs installed
- Current Cap of 150 MW, extension to 500 MW under discussion
- Project Allocations for 25 MW of 1 MW projects expected in July 2006

5. France and Greece

- 20-year feed-in tariffs developing
- \$0.36 - \$0.60/kWh range


6. Ontario, Canada

- 20-year feed-in tariff passed in 2006
- \$0.37/kWh
- Very little grid-connected activity due to low feed-in and lack of tax benefits



Transition To A REC-Based Environment

Simple but not Easy Key Elements for Meaningful Solar Development

 Project revenue streams that produce acceptable ROI to attract investment – electricity, tax benefits, RECs.

 Long-term revenue confidence to “go to the bank.”



Voted September 14 to focus on “hybrid” REC Transition model:

MidAtlantic Solar Energy Industry Association represents 71 solar companies in New Jersey, Pennsylvania, and Delaware

Transition To A REC-Based Environment



1. **Small systems:** Tariff plus RECs– tariff will compensate for higher cost of small systems and increased difficulty of aggregating and selling small numbers of RECs
2. **Large systems:** REC only with “facilitated commodity” model – using existing REC trading platform with tweaks:
 1. Raise ACP to compensate for loss of rebate
 2. Extend REC life to 2-years to ease trading
 3. Allow grid-supply projects to earn SRECs
 4. Establish underwriting to guarantee minimum REC term and floor price



Conclusions



The Foundation For a Sustainable Solar Market Has Been Laid, and Market Viability Has Been Established – over the last 6 years.

Moving to the next level via a robust REC trading system will:

1. Create economic viability for large-scale deployment of PV to meet the RPS targets.
2. Produce a program that is good for the solar industry and the ratepayer
3. Unleash billions of dollars of NJ investment and job growth
4. Make NJ a national leader in renewable energy -- these models are scalable into national paradigms
5. Reduce the strain on the transmission and distribution grid
6. Produce meaningful environment benefits to NJ and the region


Let's Up Our Bet and Join Thomas Edison and Put Our Money on Solar

March, 2008



*I'd put my money on the
sun and solar energy.
What a source of power!
I hope we don't have to
wait until oil and coal run
out before we tackle that.*

Thomas Edison
(quoted in Earth Island Journal, Summer 2001)



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