



**Asia-Pacific
Economic Cooperation**

2011/SOM2/CTI/SEM/003

The Importance of Collaboration and the APEC Solar Standards Initiative

Submitted by: Solar Energy Industries Association (SEIA)



**Seminar on Dissemination of
Environmental Technologies
Big Sky, United States
11 May 2011**



SEIA Solar Energy Industries Association®

APEC Seminar on the Dissemination of Environmental Technologies: The Importance of Collaboration and the APEC Solar Standards Initiative

John P. Smirnow

May 11, 2011

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Presentation Roadmap

- SEIA Overview
- Demand Trends
- Solar Technologies
- SEIA's Collaborative Efforts
- Relationship Between APEC Solar Standards Initiative and the Dissemination of Solar Technologies
- Additional Areas of Collaboration

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About SEIA

- Founded in 1974
- U.S. National Trade Association for Solar Energy
 - 1,100 member companies
 - Across 50 United States
 - 14 state and regional chapters
 - 93,000 U.S. solar employees
 - Members include largest solar companies in the world

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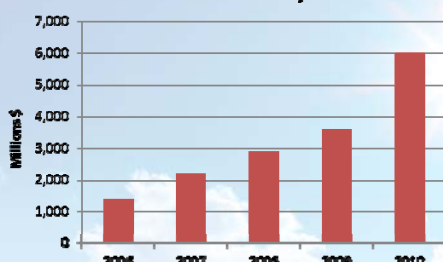
SEIA's Mission and Global Representation

- SEIA's mission:
 - build a strong solar industry to power the U.S.
 - expand markets
 - remove market barriers
 - strengthen research and development
 - improve education and outreach
- SEIA members include leading global solar manufacturers with facilities based throughout the APEC region, including Australia, Canada, China, Chinese Taipei, Japan, South Korea, Malaysia, Philippines, Mexico, U.S., and Vietnam.

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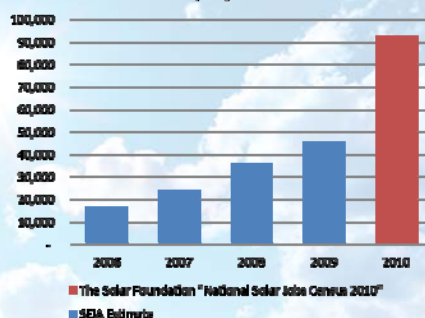
2010 U.S. Industry Growth

Estimated U.S. Solar Industry "Revenue"



SEIA/GTM Research U.S. Solar Market Insight: 2010 Year in Review

Estimated U.S. Solar Industry Employment



■ The Solar Foundation "National Solar Jobs Census 2010"
■ SEIA Estimate

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10 Gigawatts of Solar Added Annually by 2015

SEIA's Goal of 10 GW of new solar capacity installed per year by 2015 would make solar the largest source of new generation capacity in the U.S.



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Solar Technologies

- Solar technologies are varied and complex
 - growing importance of harmonized standards
- Solar water heating
- Photovoltaics
- Concentrating photovoltaics
- Concentrated solar power: power tower; parabolic trough; and dish engine

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Solar Water Heating



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Residential Photovoltaics (PV)



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Commercial Photovoltaics (PV)



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Concentrated Photovoltaics



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Concentrated Solar Power (CSP) – Power Tower



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CSP – Parabolic Trough



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CSP – Dish Engine



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Evolving Technologies

- PV thin film
- PV wafer and cell production processes
- Concentrated PV
- Microinverters and power electronics
- Nanotechnology

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SEIA's Collaborative Efforts

- State organizations, e.g., Solar Alliance, California Solar Energy Industries Association
- National renewable energy organizations, e.g., American Wind Energy Association
- Trade & Environment Policy Advisory Committee (USTR/EPA)
- Renewable Energy & Energy Efficiency Advisory Committee (Commerce)
- Overseas solar associations, e.g., European Photovoltaic Industry Association
- International Energy Agency Photovoltaic Power System Programme

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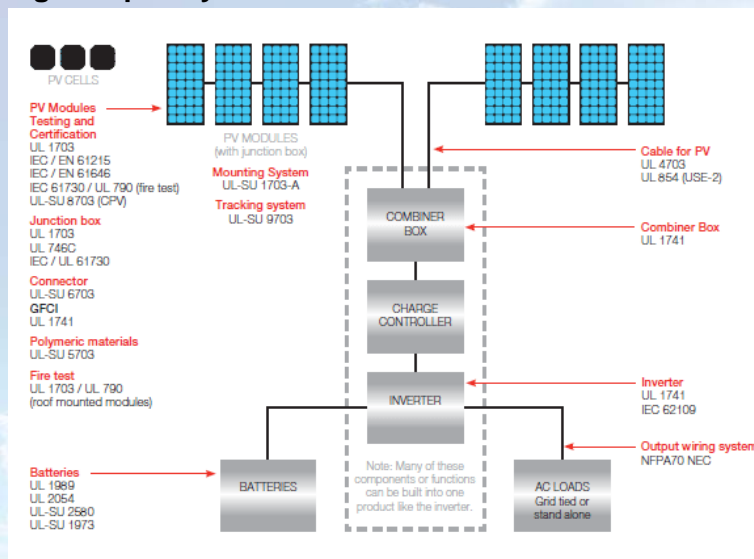
Solar Standards and the Need for Global Collaboration

- Competition with more traditional sources of energy and the need to drive down solar costs
- Support rapid development and deployment of solar technologies
- Government involvement in the solar sector could provide incentives to favor local technologies through the use of country-specific codes and standards
- Growing complexity of solar standards

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Growing Complexity of Solar Standards



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APEC Solar Technology Standards & Conformance Initiative

- Collaborative effort to support the development of solar technologies and offset challenges
- Promoting green growth by expanding regulatory cooperation and advancing regulatory convergence
- Increase cooperation in the development and utilization of industry standards
- Complexity of industry standards will grow as technologies evolve and new technologies are developed
- Important that industry standards keep pace with evolving technologies

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Additional Areas of Cooperation

- Research & development
- Public-private partnerships
- Intellectual property rights
- Trade policy
- Government incentives & preferences

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Thank You!

jsmirnow@seia.org
(202) 556-2906

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