The US Solar Market

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Introduction to SEIA

- National trade association for solar industry
  - 700 members include all solar technologies
  - Represent over +25,000 people employed by solar

- Headquarters in Washington, D.C.
  - 14 state and regional chapters

- Objectives
  - Expand Markets
  - Strengthen R&D
  - Remove Market Barriers
  - Improve Education and Outreach

- Members include manufacturers, distributors, installers, end users, financial and legal entities

PV: Residential Retrofit - 6 kW

PV: Moscone Center - SF CA - 675 kW

Source: SunPower

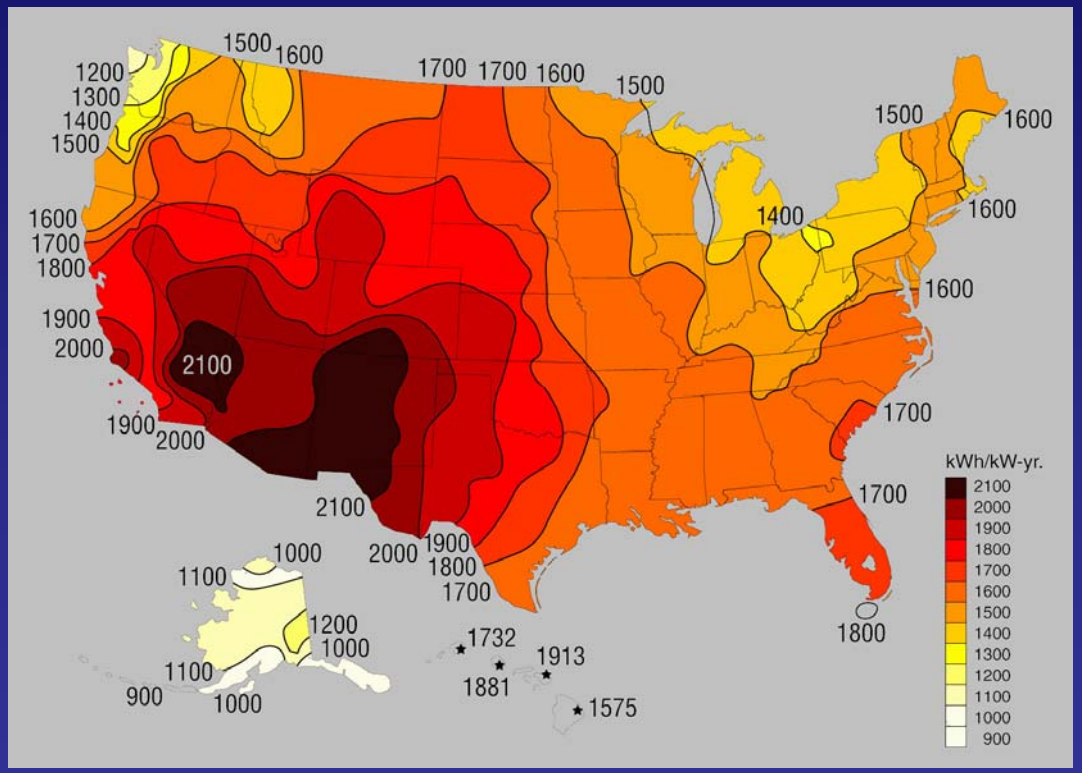
Solar Water Heating

CSP Dish System

CSP – Trough System

The Giant of Solar

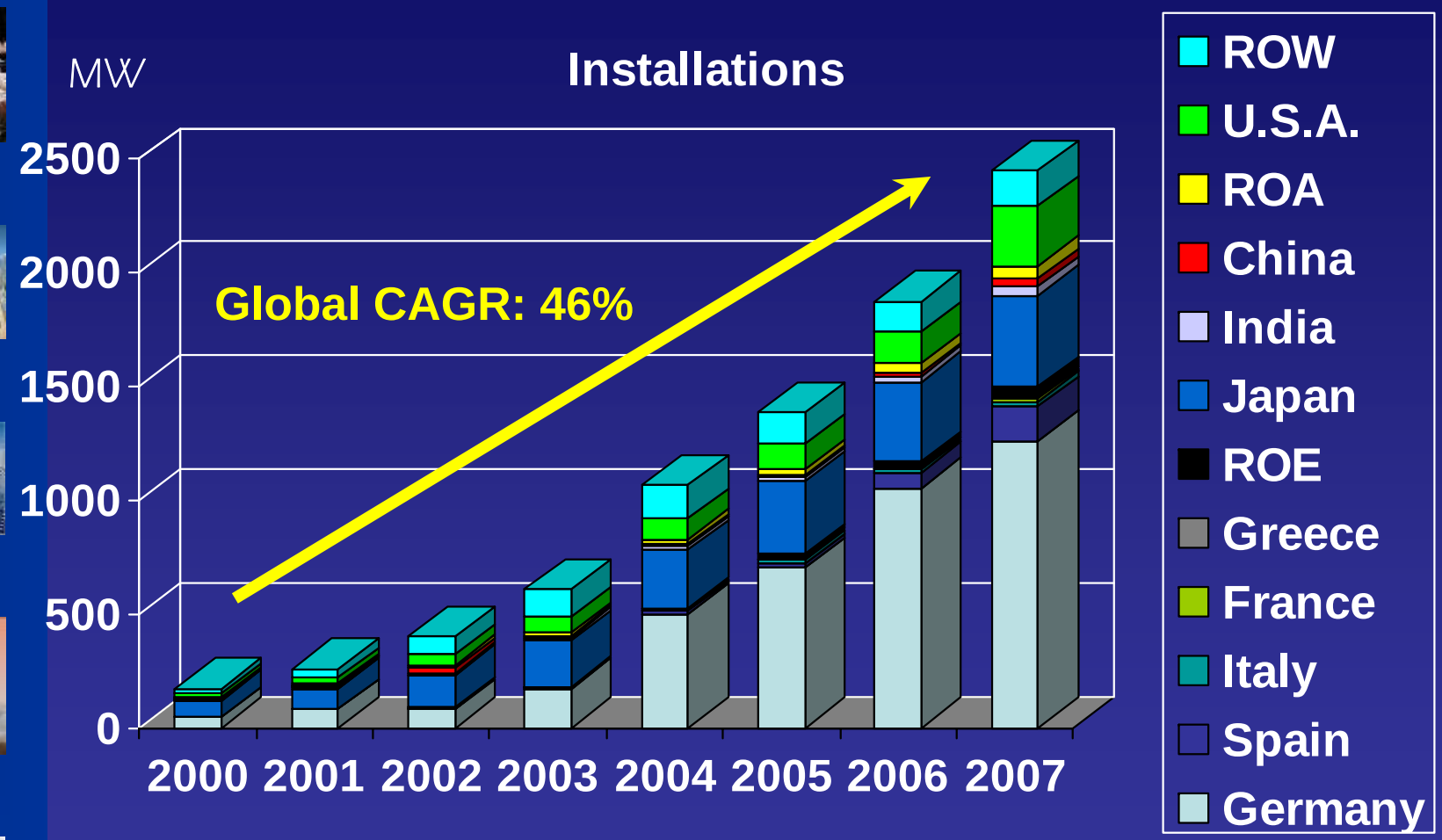
Incentive $0.48-70 kWh



Incentive $0.14-20 kWh

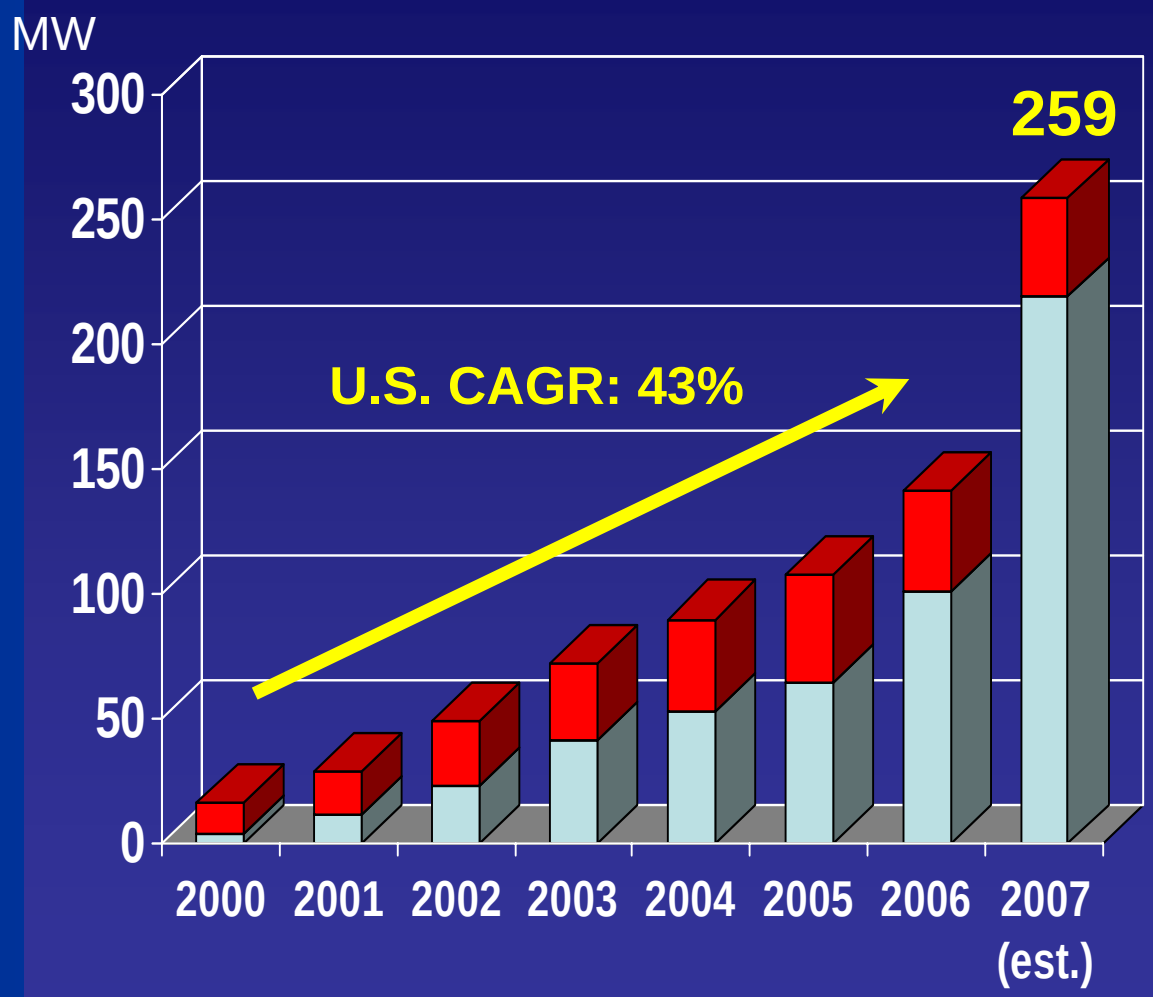
Source: SEIA

Historic Growth in PV



Source: PVNEWS

US Market Growth



Source: PVNews

From 2005-2006:

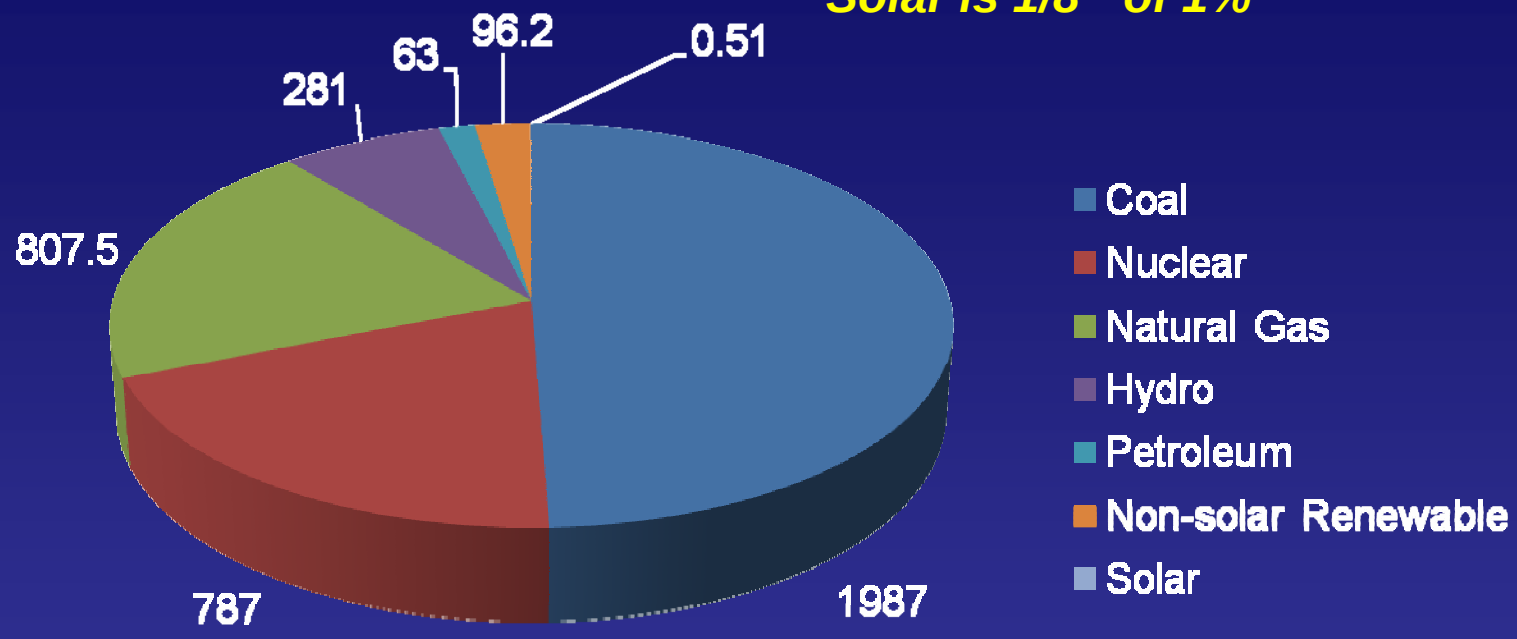
- **Grid connected up 55%**
- **Total U.S. up 32%**

From 2006-2007:

- **US Market up over 80%**

Electricity Generation in the U.S.

Solar is 1/8th of 1%



In billion kilowatt hours

Source: Energy Information Agency, Electric Power Monthly, released September 10, 2007

Why Solar? Why Now?

- Energy Independence
  - Displaces natural gas
- Energy Security
  - Stabilizes grid by reducing peak power demand
- Global Warming
- Water Availability
- Electricity Prices
- US is Energy Hungry, High Tech Society

EPAct 2005

- First Residential Tax Credit in 20 Years
  - 30% capped at $2,000
  - Only 2 years
- Expands Commercial Credit
  - 30%, no cap
  - Covers all equipment and installation costs
  - Only 2 years

Federal Energy Bill - 2007

- Extends and Expands EPAct 2005 Tax Credits
  - Commercial Credit
    - Extended by 8 years
    - Provides AMT Relief
    - Removes the exemption on utilities
  - Residential
    - Extended by 6 years
    - Provides AMT Relief
    - Removes the $2,000 cap

Federal Energy Bill – cont.

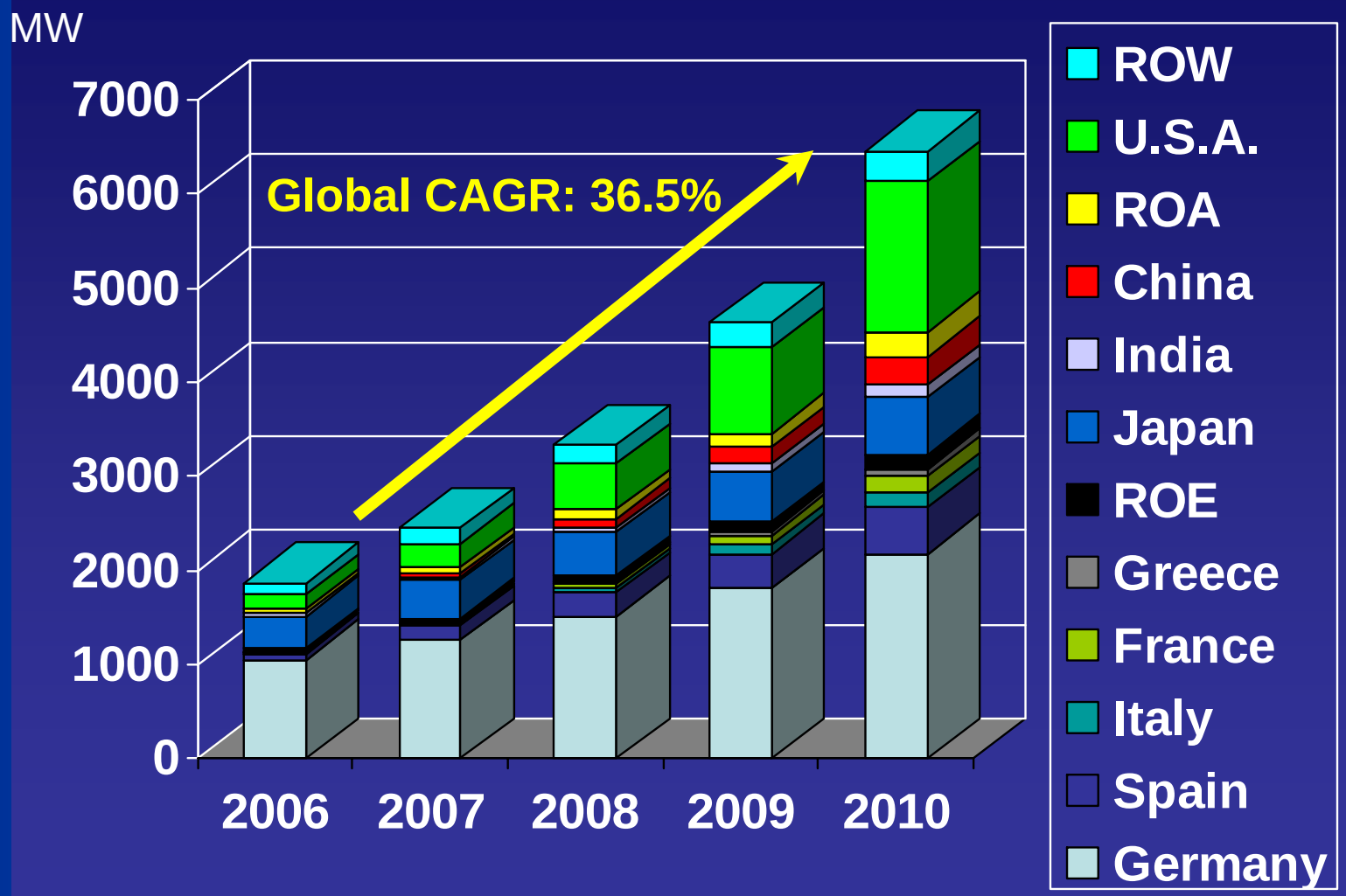
- Non-ITC Energy Bill Provisions:
  - Extension of federal government PPA contract life (House Sec. 9086 and Senate Sec. 262)
  - Strategic Solar Reserve Program (House Sec. 7304)
  - Federal Solar Hot Water Requirement (Senate Sec. 270A)
  - National Renewable Portfolio Standard (House Sec. 9611)
  - Green Energy Bonds (House Sec. 11004)

TAKE ACTION

ACTION ALERT

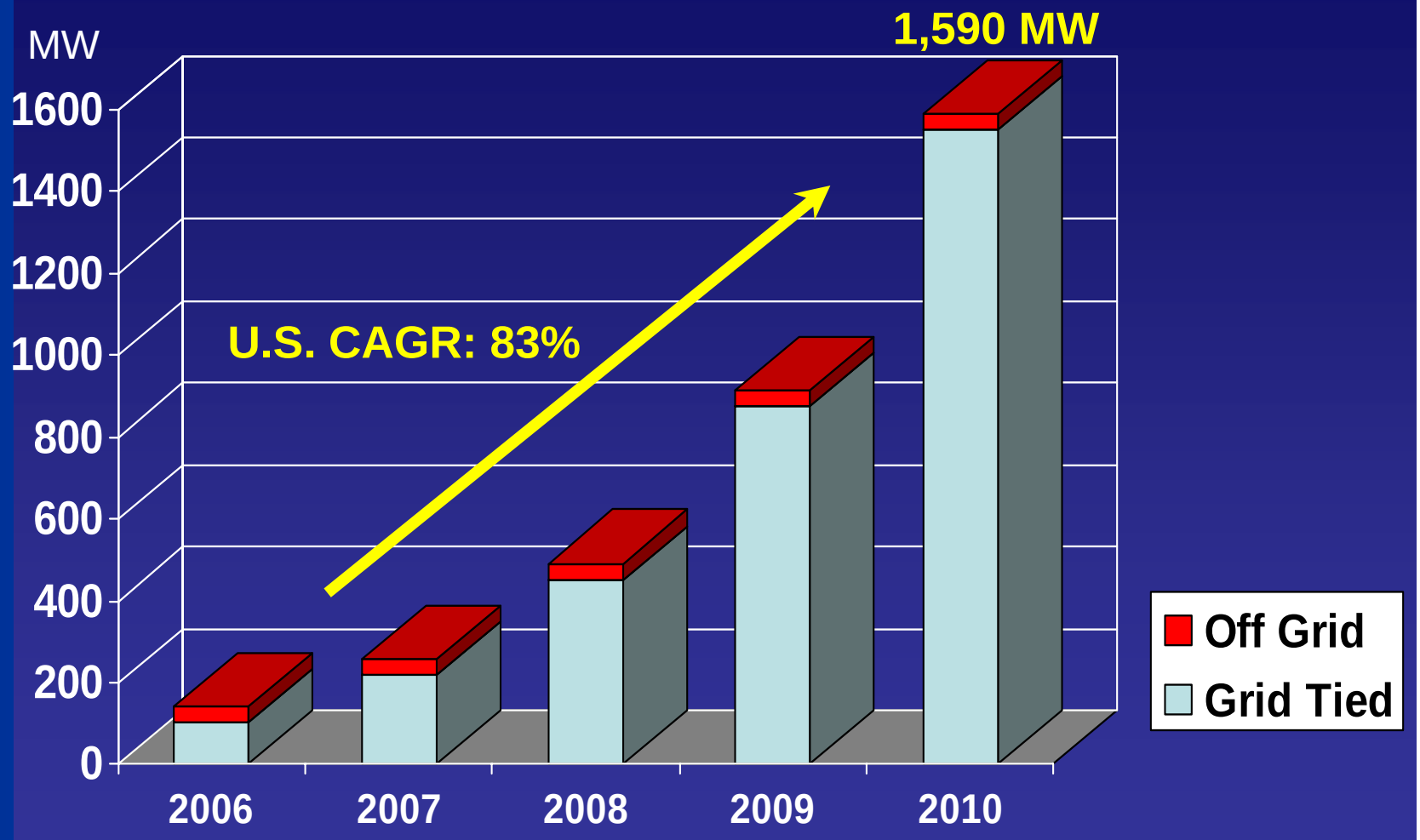
www.seia.org

Global PV Demand Projections



Source: PVNEWS

US Market PV Demand Forecast



Source: PVNews

Challenges & Obstacles

- Need Long-Term Federal Incentives
- Nation-wide Interconnection and Net-Metering
- Solar Carve-Outs in Renewable Portfolio Standards
- National Carbon Policy that Monetizes Solar Benefits

Solar Community - Japan

Power and Shade - 1 MW

World's Largest PV Carport, US Navy

BIPV - The Netherlands

Solar Skylights, The Netherlands

Roofing Structures - Germany

FedEx - Oakland Hub, CA – 904 kW

Source: SunPower

J&J Skillman, NJ – 505 kW

Source: SunPower

Bavaria Solar Park - 10 MW

Source: SunPower

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