

Making Solar Work in the U.S.

Project Finance of Solar Photovoltaic Systems

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Solar: The Perfect Hedge – and Timing is Right!

- Geopolitical concerns about energy security
- Escalating retail electricity costs
- Overworked and underinvested grid – more blackouts ahead!
- Renewable Portfolio Standards in many states
- Prices for solar equipment and installation have dropped



32% growth in solar in 2002, and 2003, 34% growth in 2004
Solar mfg. costs decreasing by 5% per annum



Which would you rather have in your back yard?

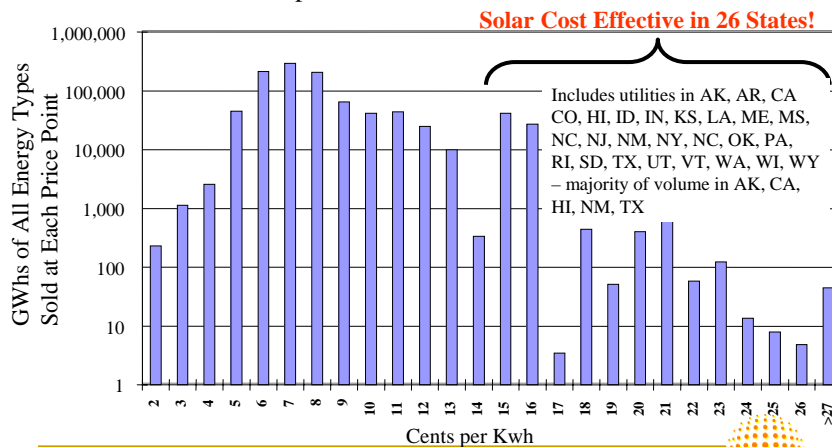


- Proven Technology: Solar panels have a 25-year warranty, 35+ year life
- No siting problems, i.e. NIMBY, aesthetics, zoning problems.
- Generates high retail value electricity during peak hours
- Uses local resources, reduces demand for imported fossil fuels (NG, Oil)
- Costs should be compared to capital investment, fuel, and maintenance costs at other power plants



But isn't it too expensive?

- Solar competes with retail average electricity rates – not wholesale
- Approximately \$10bn (10%) of U.S. electricity needs could be competitively addressed with solar power



Major Barriers to Solar Financing

- Scale – too small for most project finance, and transaction costs too much for small deals
- Misunderstanding of technology risk
- Credit of counterparties such as schools, etc.



Viability of Solar for Project-Finance

- Solar limited by subsidy programs but many new states beyond NJ and CA will become large markets in 2007, 2008 (CO,PA,AZ,NV)
- Larger scale projects must be developed -- MWs, not KWs
- Interconnection & Net Metering Standards
- Liquid renewable energy credit market, lasting longer than 3 years, with clear title to solar RECs in all locations
- Recognition that PV creates power reliability, freedom from price volatility



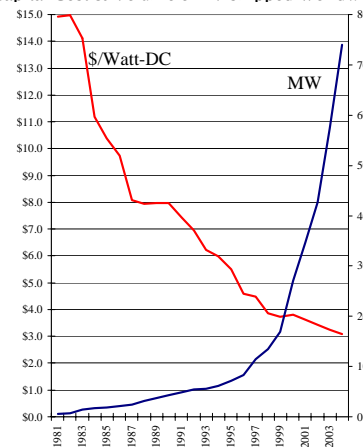
Appendix



U.S. Solar Market

- **Significant growth**
 - 32% growth in 2002, and 2003, 34% growth in 2004
 - Solar mfg. costs coming down by 5% per annum
- **Growth Drivers**
 - \$4 billion in subsidies in next 8 years

Capital Cost & Volume of PV Shipped Worldwide



In 2004, solar power industry expects to reach 1000 MW of production - enough capacity to power all the households in a city the size of Atlanta

* Source: Solar Buzz

