



## Photovoltaic Opportunity

**October 2005**



## Topics

- **About Photovoltaics**
- Impact of the Fed's 30
- Future is .....



## Clean, Reliable On-site Generation

### ➤ Financially prudent

- 1) Zero fuel costs
- 2) Financial hedge against fuel price increases
- 3) Coincident with expensive “peak” electricity

### ➤ Reliable

- 1) Proven
- 2) 20- to 25-yr. warranties on power
- 3) Virtually no maintenance

### ➤ Clean

- 1) Zero emissions, 100% renewable
- 2) Over-the-counter permitting

### ➤ Popular





## Photovoltaics: The Cleanest Energy Available

RESOURCE CONSERVATION			AIR QUALITY		
Oil	11,000	Barrels, or	Smog	25 tons	Nox
Coal	3,200	Tons, or	Acid Rain	40 tons	Sox
Natural Gas	700 million	Cubic feet	Global Warming	6,000 tons	CO2

**Example: 100 kWp PV System**

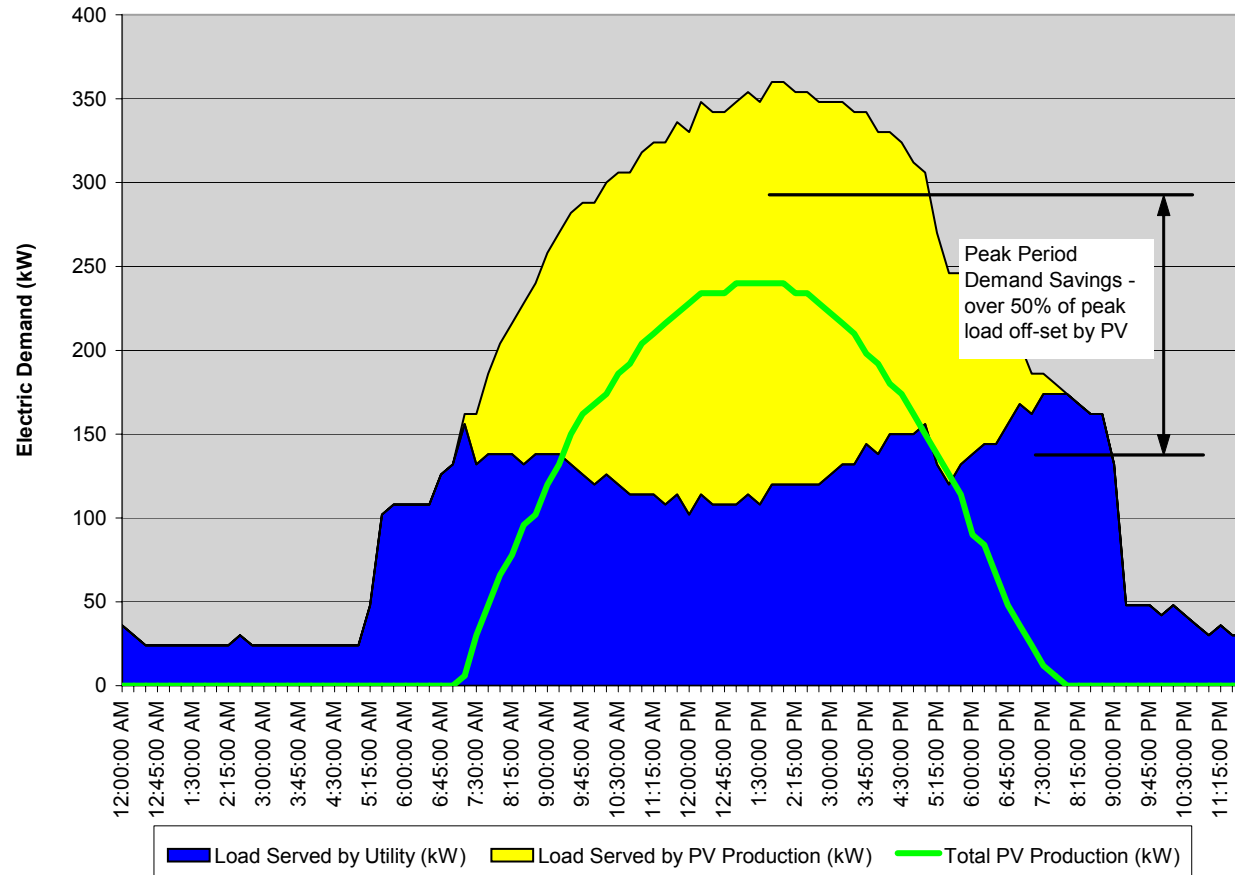
# Solar Power Overview



## PV shaves expensive facility peaks

**250 kWac  
PV System;  
N. CA**

**July 15, 2003**





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Proper tax treatment still has not been determine.

- Who's on first:
  - State or Federal
  - Commercial or Residential that is the question
  - Planning long term with Tax Credit treatment in question
  - Systems may not be installed in time.



## Topics

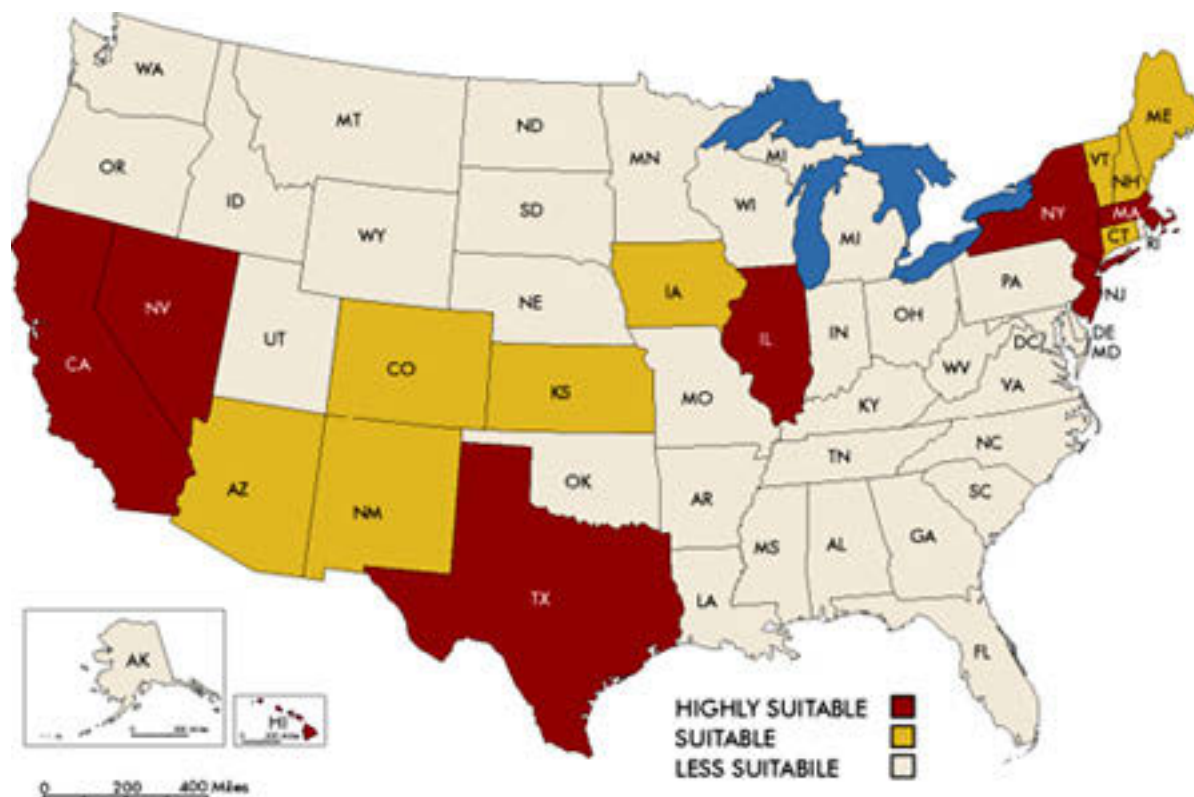
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# Geographic Site Suitability of Hawaii Ranks #1

- Available sunlight
- Electricity rates





## Economic Environment for Hawaii

- Life Cycle Cost (no tax credits taken): Bigger is Better
  - 20kWp = .253/kWh
  - 80kWp = .245/kWh
  - 250kWp = .208/kWh
- Installed cost less than \$10 per watt for commercial size systems versus \$30 per watt for 1 kWp systems
- Do we have PV solar incentives in our State?
  - RECs, Bonds, Buy Downs, Rebates – Nope!!



## What Can we do?

Increase the Commercial/Residential REITC cap

Remove the sunset date

-large systems; long lead time; but no future

Public entity financing

Off Site Generation, RECs, Bonds, Rebates,....





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