

# SOLAR AT REI

June 2009



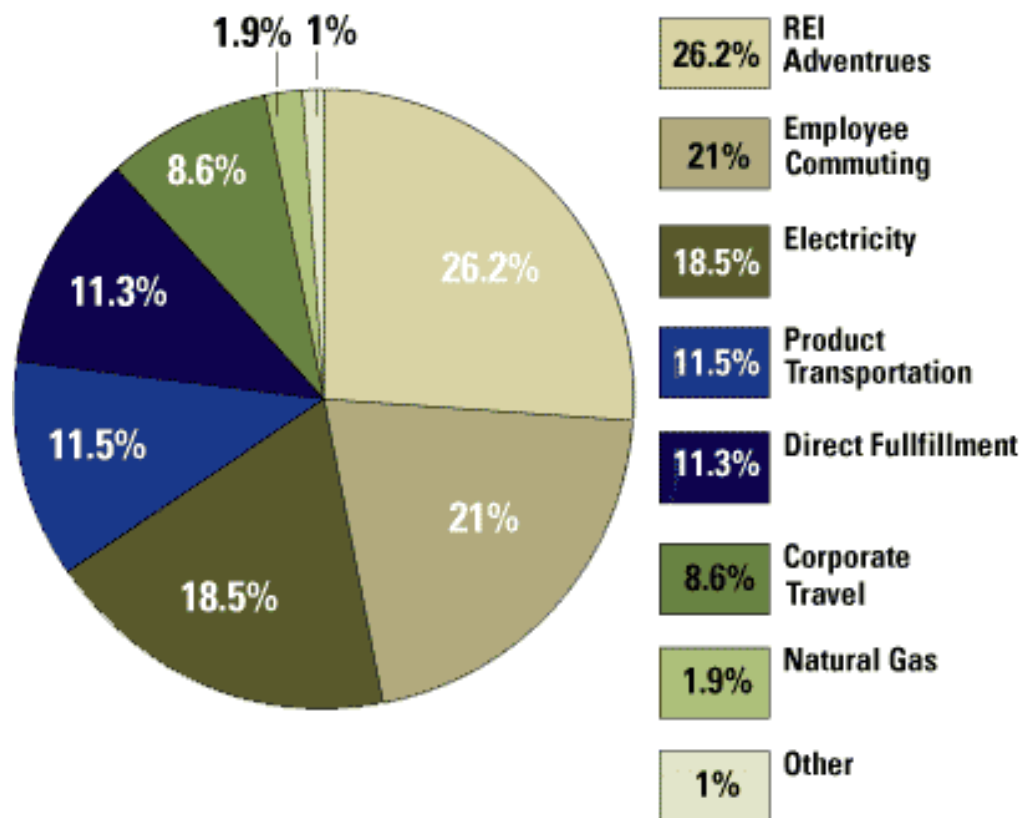


To inspire, educate and outfit for a lifetime of outdoor adventures and stewardship.



# REI Greenhouse Gas Emissions

## REI'S 2006 GREENHOUSE GAS EMISSIONS



# Sustainable Design Goals

- Enhance retail experience
- Reduce our environmental impacts
- Reduce lifetime cost of operations
- Align our buildings with our values and brand



SEATTLE '96



PORTLAND '04

LEED CI Gold

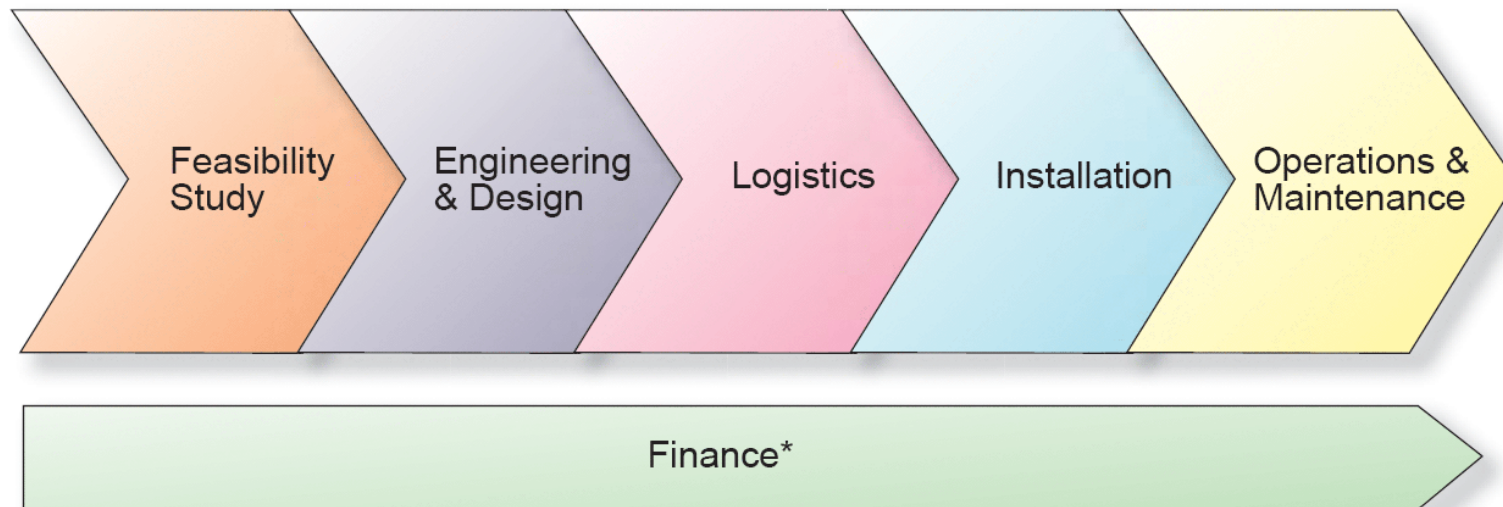


PITTSBURGH '06

LEED CI - Silver



# Solar Electric System Process



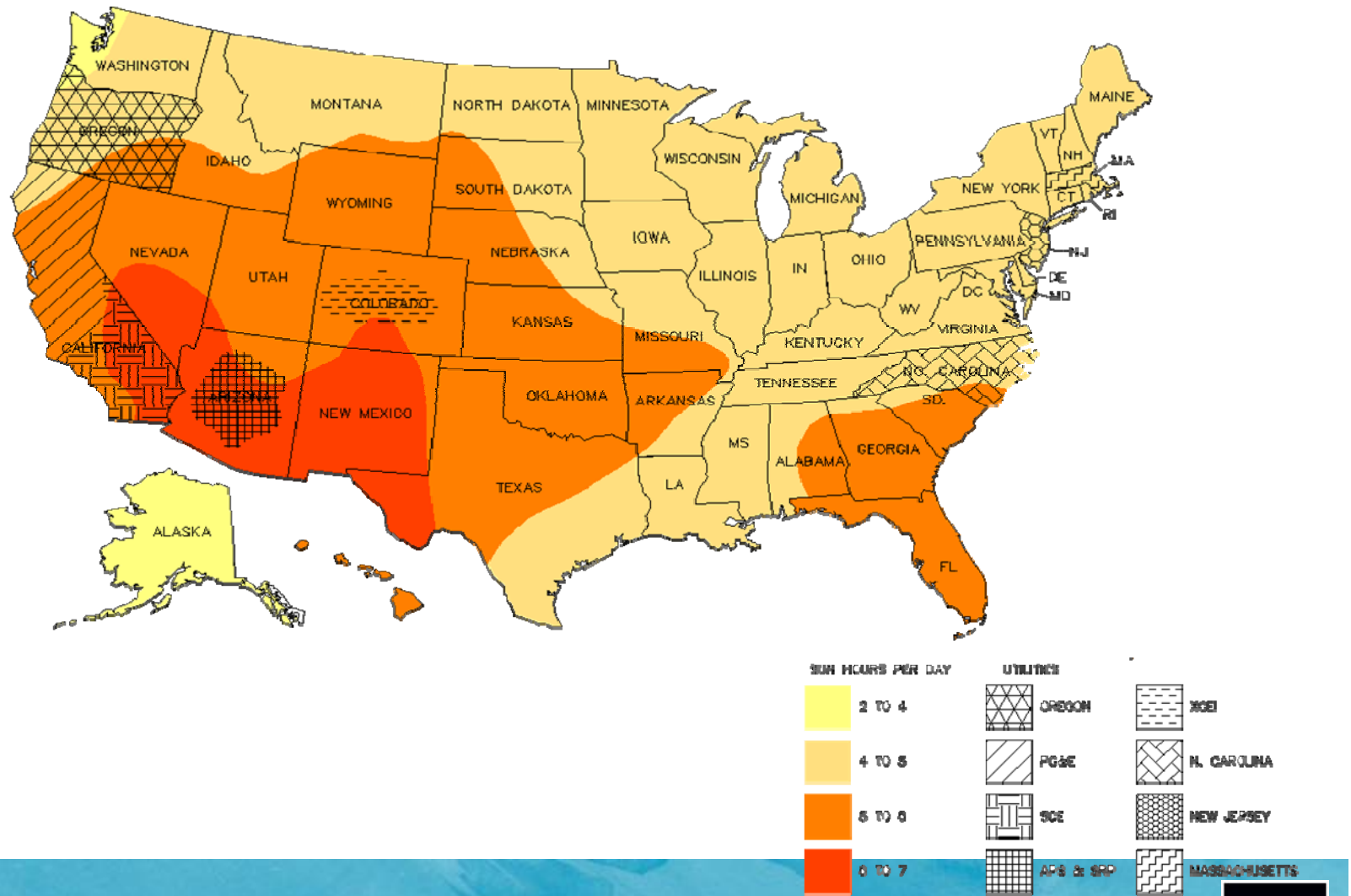
# Feasibility – Roof Space



Courtesy of Blue Oak Energy™



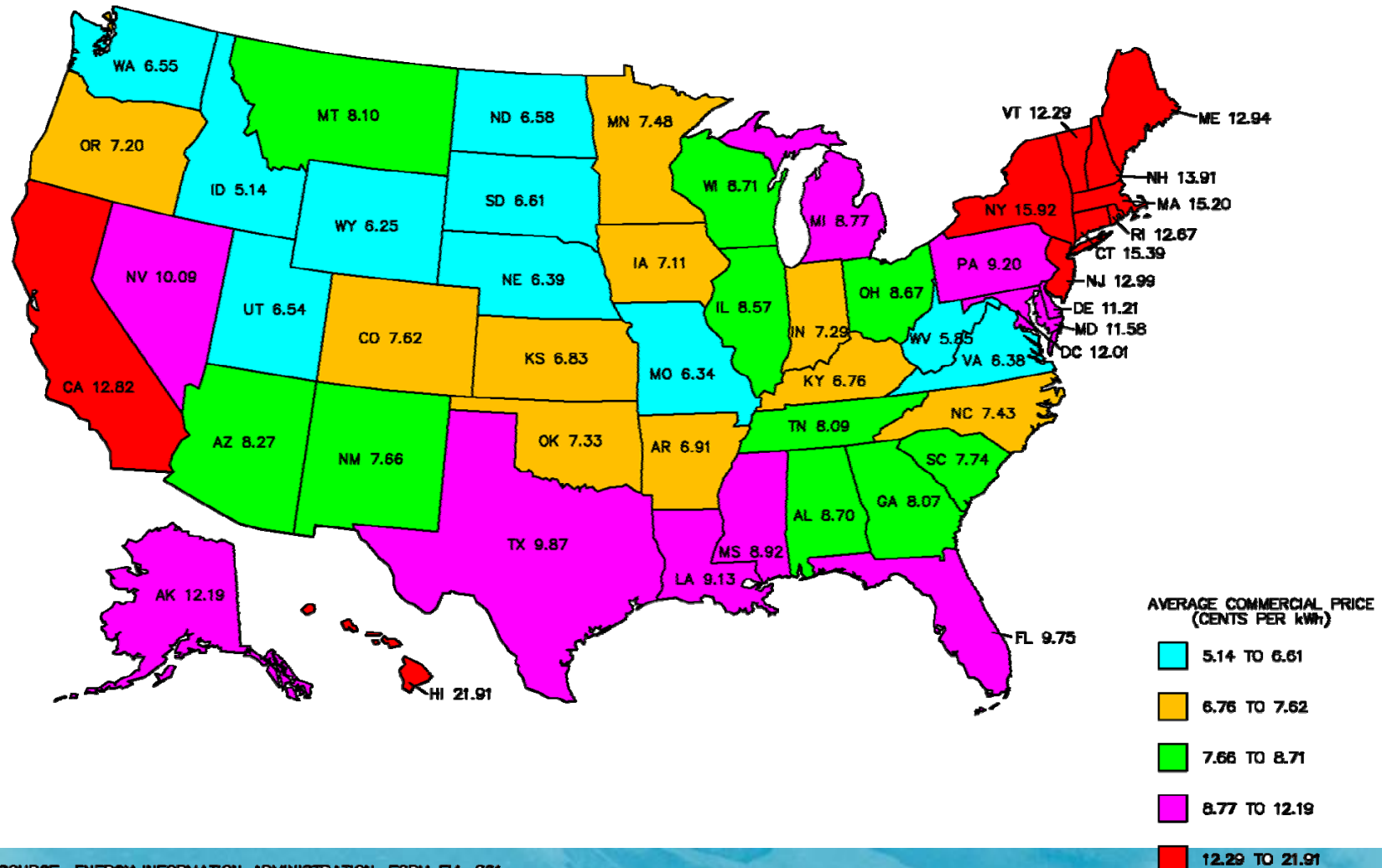
# Feasibility – Incentives & Sun



Courtesy of Blue Oak Energy™



# Feasibility – Cost of Electricity



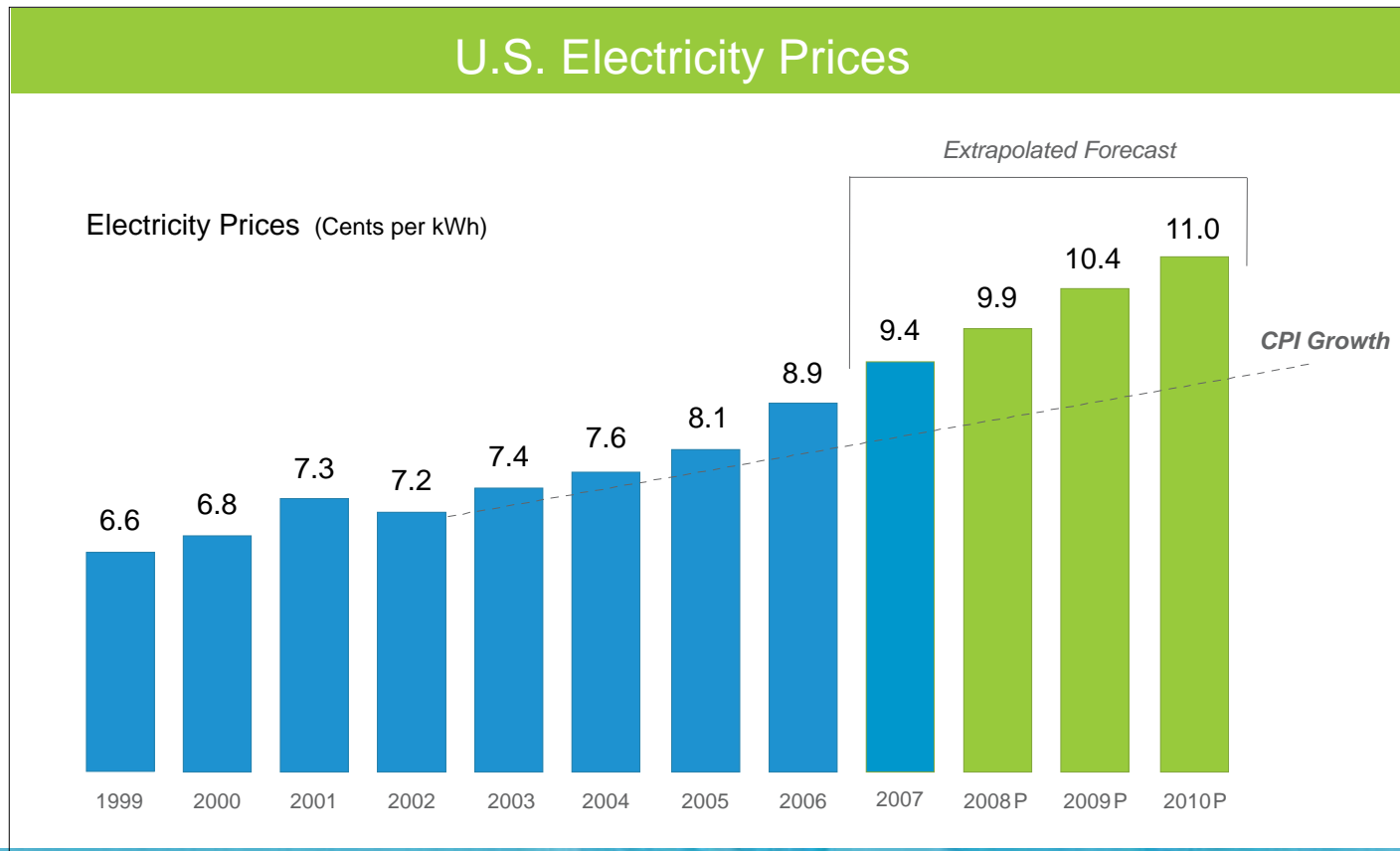
SOURCE: ENERGY INFORMATION ADMINISTRATION, FORM EIA-861  
"ANNUAL ELECTRIC POWER INDUSTRY REPORT"

Courtesy of Blue Oak Energy™



# Feasibility – Rate of Increase

U.S. electricity price increased at ~5.4% per year from 2002—2006  
Compare to 2.9% Consumer Price Index (CPI) increase;  
Growth at this pace will yield 11.0¢ per kWh by 2010.



Sources: Energy Information Administration; U.S. Bureau of Labor Statistics.; Blue Oak Energy

# 2008 REI Solar Electric Systems



Location	Rated AC Power (kW)	Predicted Annual Energy (kWh)
Santa Rosa, CA	73.9	122,000
Sacramento, CA	130.6	213,000
Folsom, CA	48.4	80,000
San Francisco, CA	48.4	82,000
San Carlos, CA	99.8	162,000
Arcadia, CA	68.7	120,000
San Diego, CA	93.2	161,000
Tualatin, OR	53	79,000
Hillsboro, OR	37	40,000
Clackamas, OR	29	30,000
Round Rock, TX	18	29,000

Photo courtesy of Blue Oak Energy™

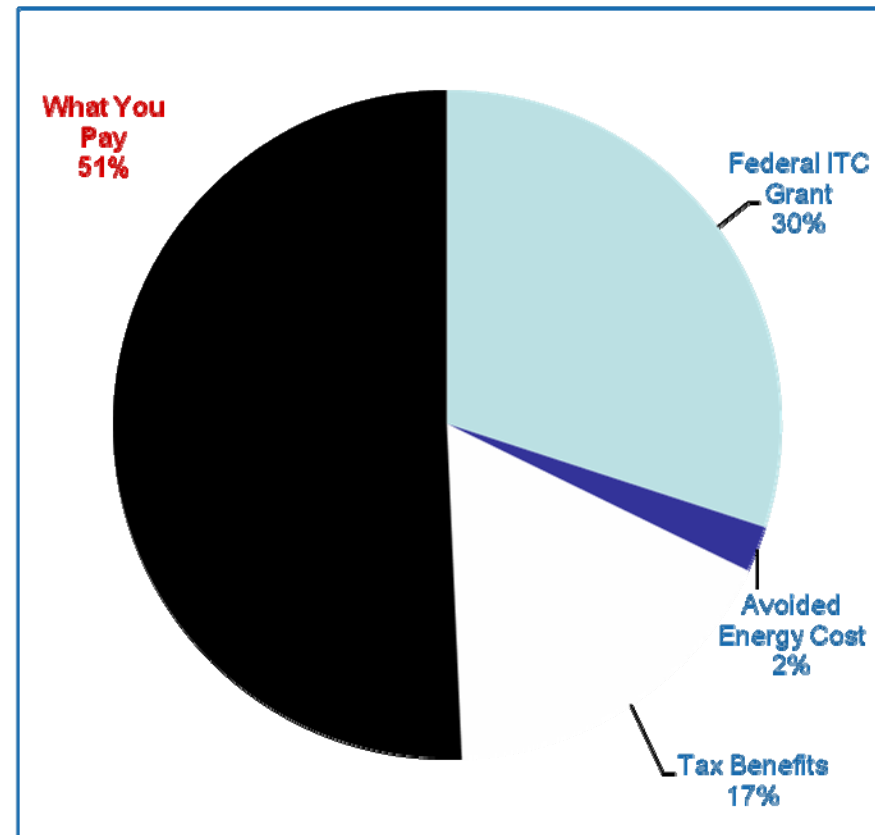
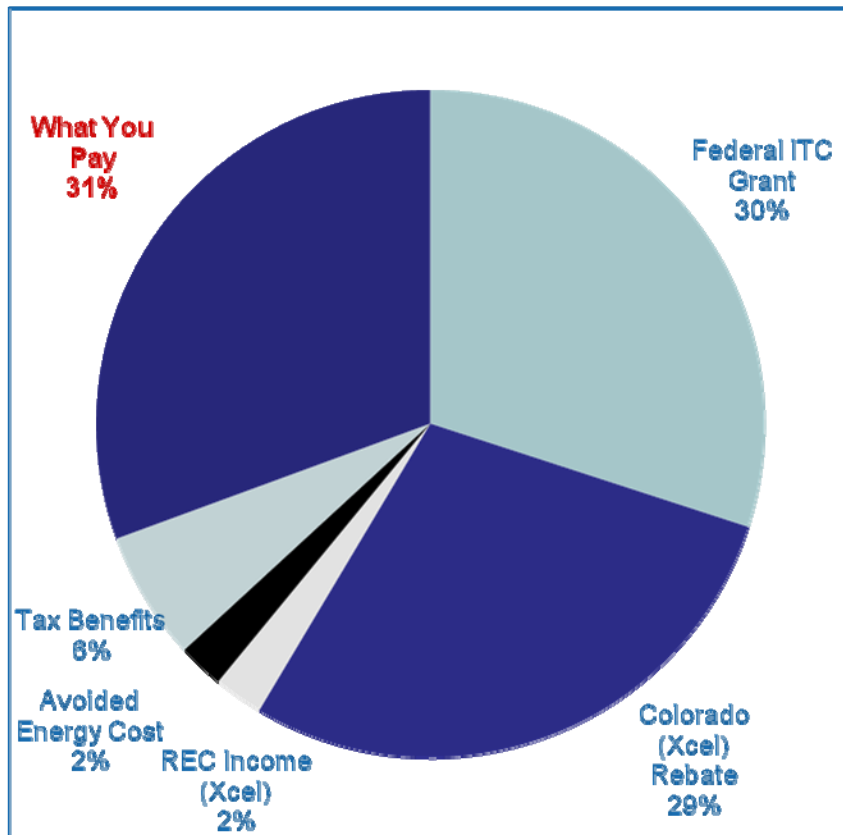


# 2009 Feasibility? Still need incentives

100 kiloWatt (kW) System Example—Year 1

Xcel Energy Territory  
(Denver area)

non-Xcel Territory  
(Colorado Springs)



# Current Performance

Offset Electric - REI's Sacramento Store

[Support](#) [Logout](#)



OVERVIEW **PV** WEATHER STATION

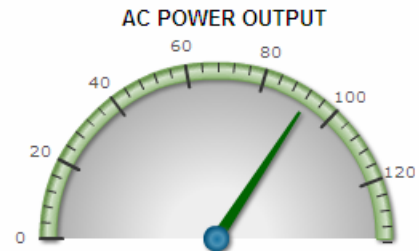
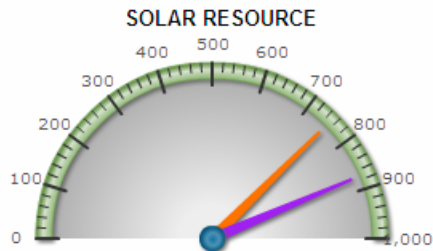
PROJECT IMAGE



STANDARD PV SYSTEM PERFORMANCE

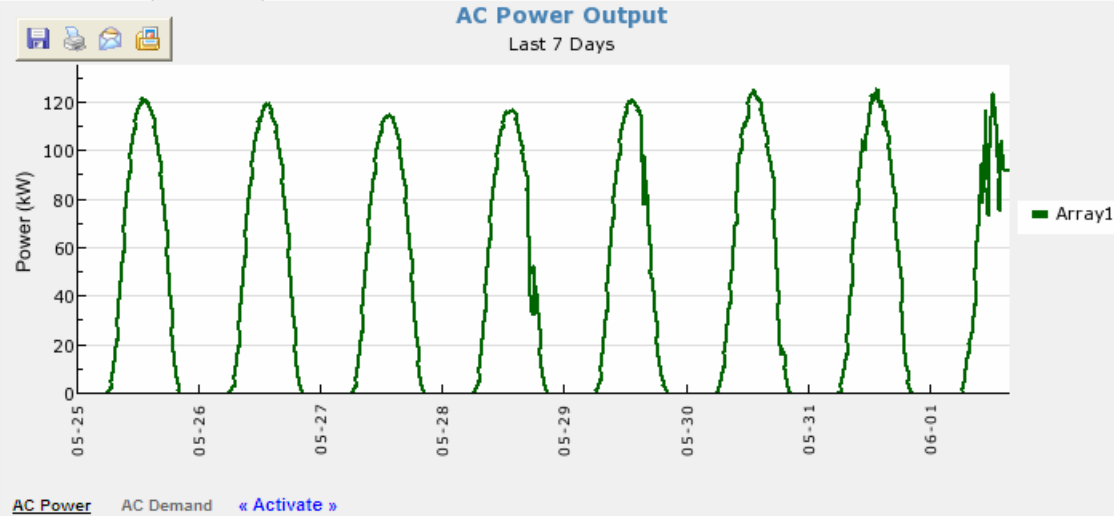
Jun 1, 2009 3:30 PM

BOM Temperature	125.1 °F
Percent of Rated Capacity	60 %
Peak Irradiance Today	810.5 W/m <sup>2</sup>
Peak AC Power Today	123.4 kW
AC Energy - Total in 2009	97,969 kWh



Past Two Days **Past Week** Last 31 Days User Defined

[Export Data](#)



# Lessons Learned

- Understand financial goals
- Review structural integrity before signing contract
- Plan for customer & employee communications



Photo courtesy of Blue Oak Energy™



A person in a brown jacket stands on a rocky outcrop in the foreground, arms raised, overlooking a vast, deep canyon. The canyon walls are steep and covered in green vegetation. In the distance, a blue lake is visible, surrounded by more rugged mountain peaks under a cloudy sky. The word "Questions?" is written in white text across the center of the image.

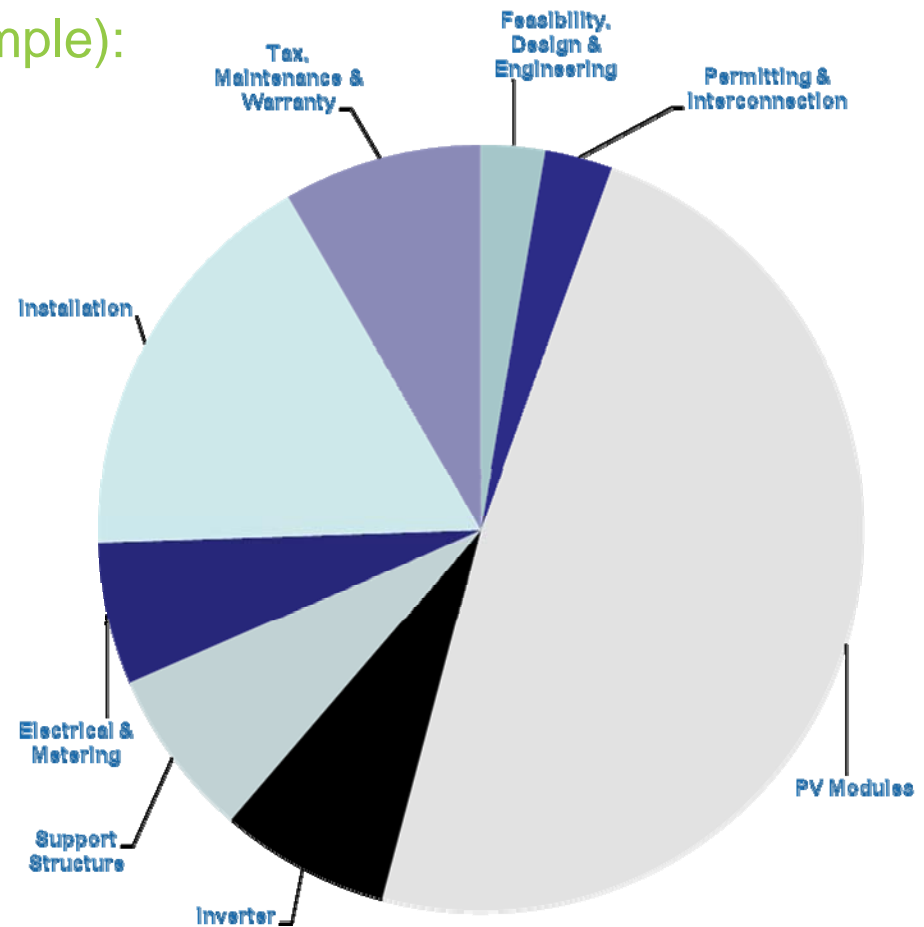
Questions?

Sharon Im-lee – [Simlee@rei.com](mailto:Simlee@rei.com)

# Feasibility: System Cost Breakdown

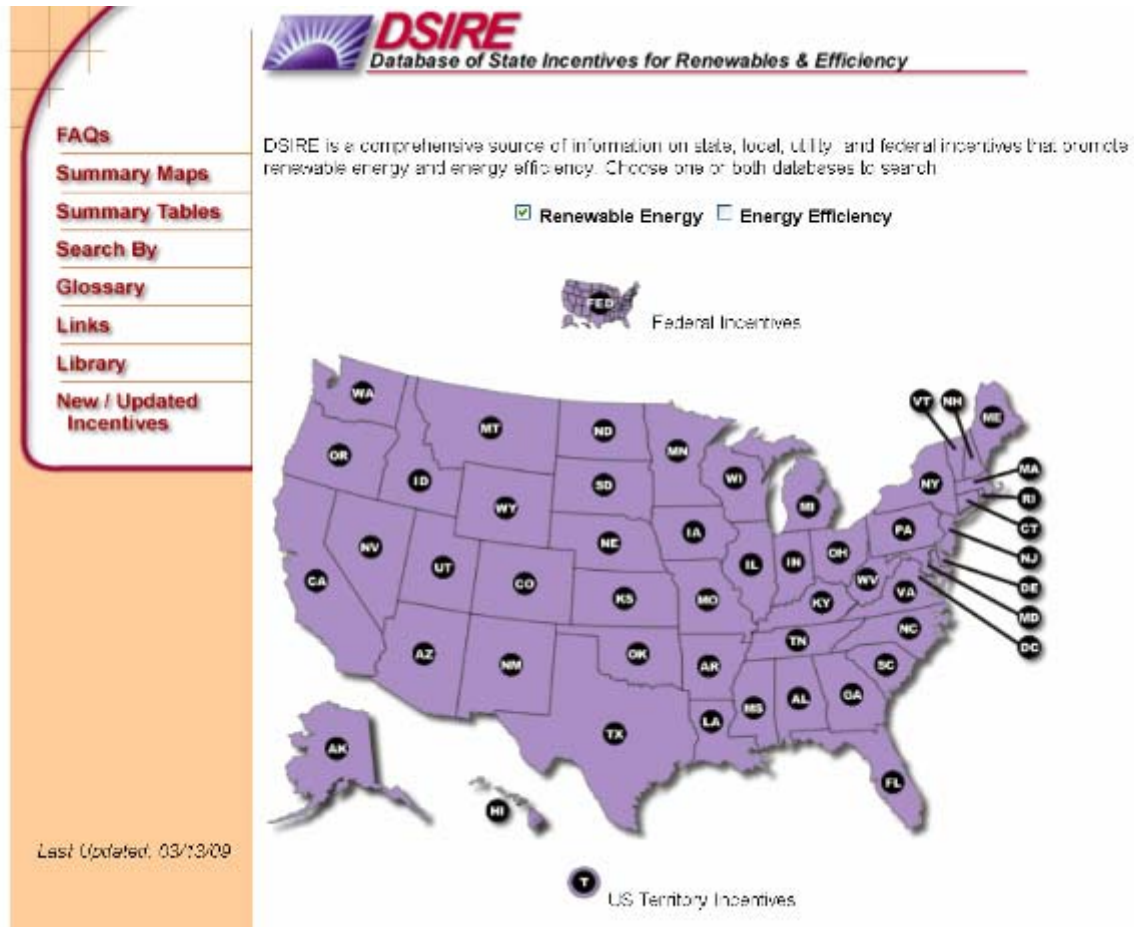
## Installed Price (100 kW example):

- \$7 - \$8/Watt
- \$70 - \$80/SF



# Feasibility: Financial Incentives

([www.dsireusa.org](http://www.dsireusa.org))



**DSIRE**  
Database of State Incentives for Renewables & Efficiency

DSIRE is a comprehensive source of information on state, local, utility and federal incentives that promote renewable energy and energy efficiency. Choose one or both databases to search:

Renewable Energy  Energy Efficiency

FED Federal Incentives

US Territory Incentives

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Last Updated: 03/13/09