Solar Energy Systems

National Association of Attorneys General
Edward Comer, General Counsel, EEI
San Diego, June, 2015
The Use of Renewable Energy Is Growing Nationwide

Installed Renewable Capacity (2005-2014) (GW)

Source: Ventyx Inc., The Velocity Suite; GTM/SEIA Solar Market Insight
Solar includes PV and CSP
Utilities Lead the Way on Solar Power

60% of all installed solar capacity is large-scale utility solar capacity.

From 2010-2014, additions of new solar capacity have grown 82% per year on average.


In 2014, nearly 4 GW of large-scale solar capacity were installed.

Utilities represent 96% of all active & planned community solar capacity in the United States.

Large-scale utility solar PV had an average cost of $1.68 per watt in 2014.

Compared to residential rooftop solar had an average cost of $3.66 per watt in 2014.
Large-Scale Utility Solar Projects Amount to About 60 Percent of All Installed Solar Capacity

Cumulative Solar Installed Capacity (GW)

Source: Ventyx Inc., The Velocity Suite; GTM/SEIA Solar Market Insight

e = Estimated. Solar includes PV and CSP
Solar PV Costs Continue to Decline

Cost of Solar PV ($/Watt)

- Residential PV
- Utility-Scale PV

Source: GTM/SEIA Solar Market Insight
Data is the average of quarterly data for each year.
Large-Scale Utility Solar PV Is About Half The Cost of Residential Rooftop Solar

Cost of Solar ($/Watt in 2014)

- Residential: $3.5
- Utility-Scale: $1.5

Source: GTM/SEIA Solar Market Insight
Data is the average Q1-Q4 2014. Data only includes cost of PV technologies
Annual Average Residential Electricity Prices
(Actual and Projected)
Total Electric Utility Industry

- EIA Actual Residential Prices (2.3% average annual increase from 1993 to 2013)
- EIA Forecast of Residential Prices (2.1% average annual increase from 2014 to 2033)
- Solar Leasing Company Forecast of Residential Prices (4.8% average annual increase from 2014 to 2033)

$12,000+ difference in electricity costs over 20 years
Overstating Savings from Solar Leases

Promised Customer “Savings”

Customer expects to save more and more money every year from solar lease

Potential Customer “Savings”

Customer begins to pay more money every year due to solar lease
Help Consumers Understand...

- Clean Energy and efficiency options
- Contract details
- Rooftop solar system operations
- Total cost of contract
- Maintenance and warranty issues
- Tax obligations
- Utility charges
- Impact of solar on home sale