

# Palo Alto CLEAN

## A Local Solar CLEAN Program

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City of Palo Alto Utilities  
April 26, 2012

# Palo Alto CLEAN Overview

- Began accepting applications April 2
- Focus on “large” rooftop solar (100 kW+)
- No maximum size, but few sites are large enough to accommodate more than 500 kW
- Avoided cost pricing, little ratepayer impact
- 14 cents/kWh for a 20 year contract
- 4 MW capacity limit for 2012
- Bid based tie breaking mechanism if capacity limit exceeded
- Developing plan for future years

# About Palo Alto

- Located in the San Francisco Bay Area
- Adjacent to Stanford University
- Seven utilities, including electric, gas, and water
- In existence for over 100 years
- 25,000 customers, 1,000 GWh annual load
- Residents are sustainably minded and take an active interest in their utility – 21% participate in voluntary green program

# Palo Alto's Energy Supply

- Sources: 50% hydro, 20% renewables (as of 2011), 30% non-specific sources
- RPS plan: at least 33% by 2015, discussing carbon neutral portfolio goal
- Contracted renewable sources: wind, landfill gas, small hydro, solar, geothermal
- Successful solar rebate program (PV Partners Program) since 1999: 400+ systems, 3.15 MW



*Photo courtesy of U.S. EPA's Landfill Methane Outreach Program*

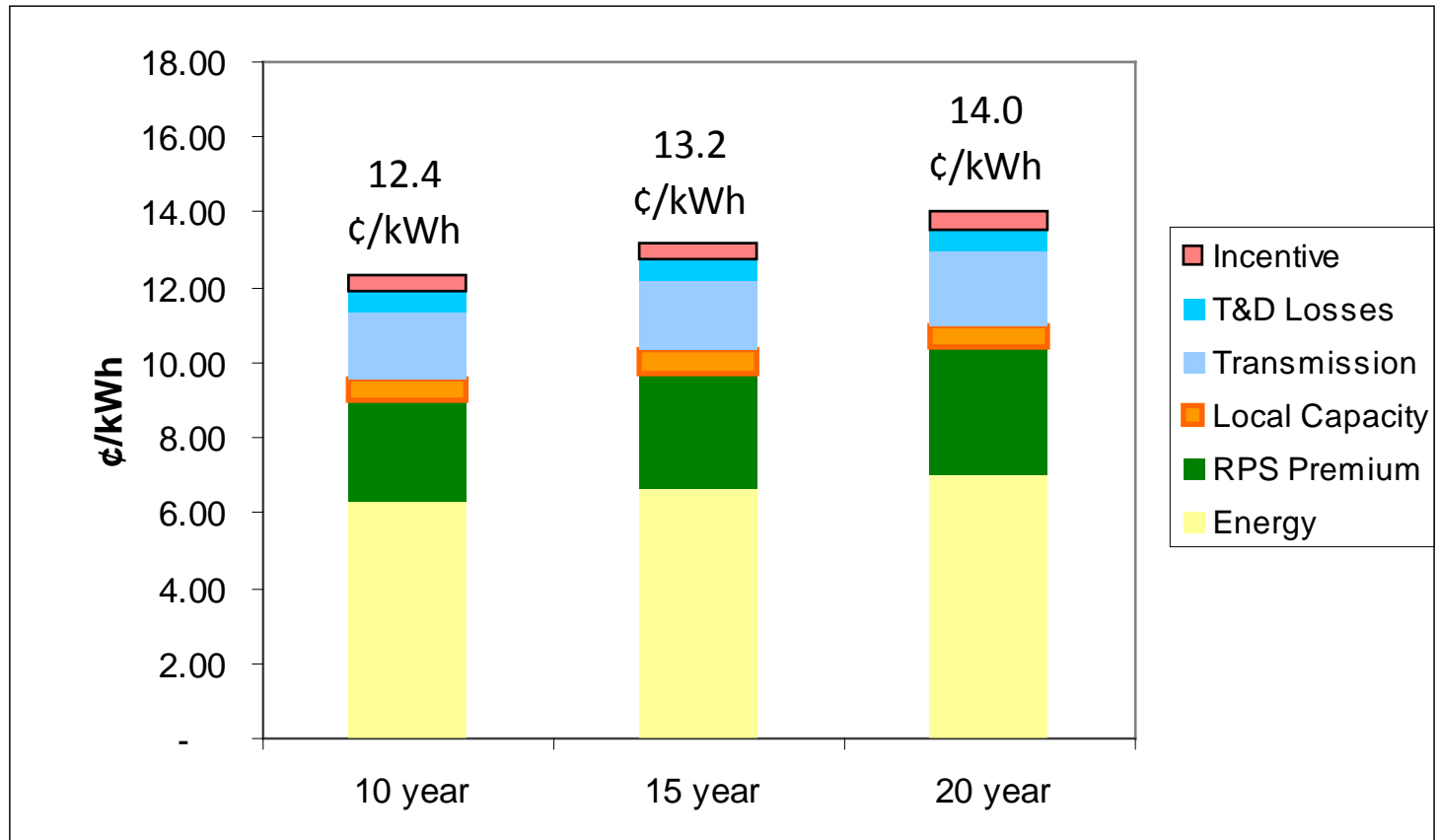
# Palo Alto CLEAN Goals

- Increase the amount of solar in Palo Alto
- Achieve a portion of our RPS goals using local resources
- Realize benefits associated with local generation
- Do all of this with little or no ratepayer impact

# Solar Potential

- Good solar resource: 5.5 sun-hours per day
- Where to mount it:
  - Commercial roofs: 50-80 MW technical potential
  - Parking lots: Landscaping requirements make them difficult to develop
  - Ground mounted: High land values mean little ground mount potential
- Shading is a factor: Palo Alto received “Tree City USA” award from National Arbor Day Foundation

# Avoided Cost Price



# Program Design

- **PPA:** Drew on lessons learned at other utilities Gainesville, SMUD, California IOUs
- **Interconnection and Permitting:** Focused on simplifying the permit and interconnection process to lower developer costs
  - Single building permit / interconnection submittal
  - Pre-submittal site visit with utility engineer and inspector
  - Simplified interconnection review for low-impact projects



# Program Design

- **Outreach:** Sought outside input on draft program design – solar developers, customers, industry groups such as CLEAN Coalition
- **Metering and Payment:** Using CPAU meters, sending payment through customer billing system
- **Green Attributes:** Registering RECs in WREGIS tracking system under our account

# Palo Alto CLEAN Team



*Clockwise from upper left: Lindsay Joye, Utilities Marketing, Rhonda Parkhurst, Building Inspection, Mike Mintz, Electric Engineering, Jonathan Abendschein, Resource Management, Pam Turpen, Electric Meter Shop, Jim Stack, Resource Management, Tom Kabat, Resource Management, Grant Kolling, Senior Assistant City Attorney  
Not Pictured: Tom Finch, Electric Engineering*

# For More Information

## **Palo Alto CLEAN**

Jonathan Abendschein

[paclean@cityofpaloalto.org](mailto:paclean@cityofpaloalto.org)

650-329-2441

[www.cityofpaloalto.org/paclean](http://www.cityofpaloalto.org/paclean)

## **PV Partners**

Kevin Carley / Lindsay Joye

[pvpartners@cityofpaloalto.org](mailto:pvpartners@cityofpaloalto.org)

650-329-2441

[www.cityofpaloalto.org/pvpartners](http://www.cityofpaloalto.org/pvpartners)