



**Marin Energy Authority
Technical Committee Meeting
Monday, April 22, 2013
9:00 A.M.**

Dawn Weisz
Executive Officer

Damon Connolly
Chair
City of San Rafael

Kathrin Sears
Vice Chair
County of Marin

Bob McCaskill
City of Belvedere

Alexandra Cock
Town of Corte Madera

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Town of Fairfax

Len Rifkind
City of Larkspur

Ken Wachtel
City of Mill Valley

Denise Athas
City of Novato

Tom Butt
City of Richmond

Carla Small
Town of Ross

Ford Greene
Town of San Anselmo

Ray Withy
City of Sausalito

Emmett O'Donnell
Town of Tiburon

**San Rafael Corporate Center, Tamalpais Room
750 Lindero Street, San Rafael, CA 94901**

Agenda – Page 1 of 1

- 1. Board Announcements (Discussion)**
- 2. Public Open Time (Discussion)**
- 3. Report from Executive Officer (Discussion)**
- 4. Creation of Deep Green Local Development Fund (Discussion)**
- 5. Local Renewables and Local Programs Update (Discussion)**
- 6. SmartMeter Presentation (Discussion)**
- 7. Energy Efficiency Standard Offer (Discussion)**
- 8. Board Member & Staff Matters (Discussion)**
- 9. Adjourn**

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Local Renewable Development Fund

Powered by Deep Green



MCE Developed Projects

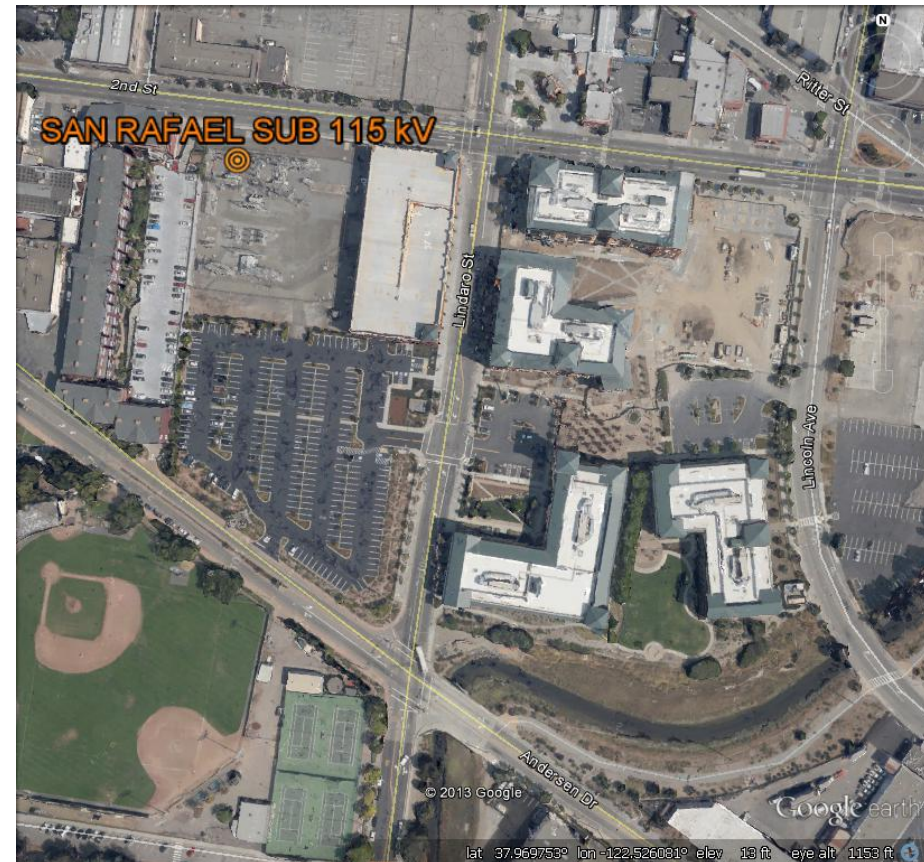
- MCE can develop and own projects to support long term goals for renewable power supply and cost stability
- MCE's service territory has a wide variety of potential project development sites to consider
- A MCE 'Local Renewable Development Fund' could be created and linked to Deep Green Customer participation to spur additional project development in the future.

Local 'Fund' can tie to Deep Green Program

- Establishing a 'Local Renewable Development Fund' would create a mechanism for customers to directly support the first MCE-owned renewable project... and additional renewable projects in the future
- Fund would formalize the link between Deep Green customer base, and local project development
- Interest in local renewable projects is likely to stimulate new Deep Green customer enrollments, and thereby provide support for more local projects in the future
- Next steps and customer outreach

First Project: Pre-screening Process

- Load data analysis to evaluate annual kWh consumption.
- Evaluate onsite generation opportunities such as available roof / parking area.
- Determine proximity to substation or existing generation.



First Project: Pre-screening Process

Assess Zoning & Use Permit Requirements

- Assess zoning and other applicable land use considerations
- Identify permitting requirements that may be impacted by ‘disturbed’ sites and/or on site ‘ancillary uses’
- Appropriately sizing project capacity may streamline permitting requirements
 - Projects designed to offset a portion of onsite kWh consumption would not typically require a CUP
 - CUP’s are often required when selling energy offsite (which could occur with the installation of an “oversized” system)

Assess Interconnection Requirements

- 1 MW to 5 MW for initial project would allow for ‘Fast Track’ process. This would eliminate need for study fees, network upgrades, and reduce development timeline.
- < 1 MW eliminates scheduling and CAISO fees.

First Project: Pre-Development Budget & Timeline

Documentation Needed for Interconnection Submittal

- Site Control – Evidence of Site Exclusivity (Lease, Option, or purchase agreement) identifying site owner name, address, and contact information.
- Site Plan – Site drawing to scale, showing generator location and Point of Interconnection with PG&E's distribution system.
- Single Line Diagram – Single-line diagram showing generating units, step-up transformers, auxiliary transformers, switches/disconnects of the proposed interconnection, and required protection devices and circuit breakers.

First Project: Pre-Development Budget & Timeline

Pre-Screening

- Assess zoning, land use, Conditional Use Permitting

Cost Estimate

TBD

CEQA site assessment/Permitting

- Independent consultant

Categorical Exemption or Neg Dec for disturbed or developed sites

\$5,000-\$10,000

Electrical Engineering

- Independent Engineer

\$5,000-\$10,000

Civil Engineering

- Independent Engineer

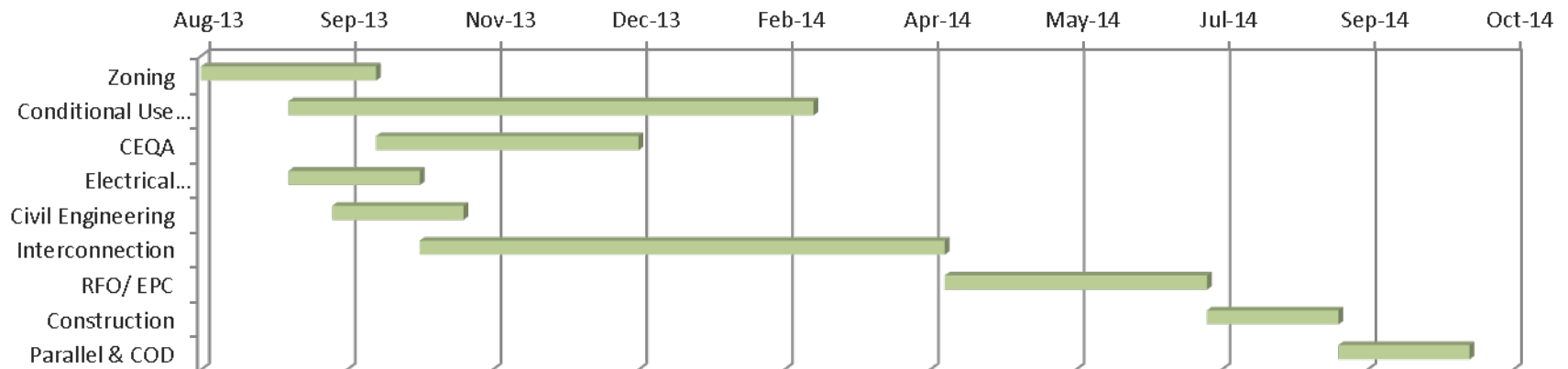
\$5,000-\$15,000

Interconnection

- Fast Track process - Less than 2 MW on 12 Kv - 3 Mw on 21 kv

\$500

Each Site - Estimated cost \$15,000 to \$35,000



Questions?



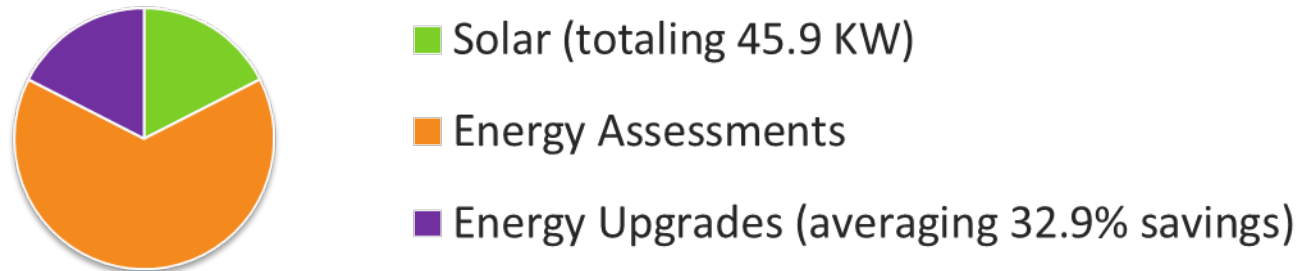
Local Programs by MCE & Partners



Solar Rebate Program

- MEA operated a \$20,000 rebate program for MCE residential customers from 1/12 to 6/12
- 40 rebates were awarded in the 2012 program

Breakdown of 2012 rebates by type



Solar Rebate Program

- New allocation of \$10,000 will allow for re-launch of solar rebate program
- Targeting launch date of July, 2013
- Rebates available to both owned and leased (PPA) systems
- \$5K earmarked for both Marin and Richmond (equal allocation of rebate dollars solely for PV installation)

Questions for consideration:

- Residential only?
- Multi Family units included?

Solar Rebate Program: Application Process



Marin Clean Energy Solar Rebates REQUEST FOR REBATE PAYMENT

To receive a Marin Clean Energy Solar Rebate payment for a solar installation, please complete, sign, & return this form.

Property-Owner Information

Last Name _____ First Name _____

Property Address _____ City _____ Zip Code _____ Square Footage _____

{ } _____

Telephone _____ Email _____

Project Information

- 1) Type of System: ☐ Photovoltaic ☐ Solar Hot Water Heater ☐ Solar Water Heater
- 2) System Size: _____ Kilowatt _____ Square Footage
- 3) System Purchase Date: _____ (DD/MM/YEAR)
- 4) Where will the system be installed? ☐ Same as above
- _____
- 5) Type of building: ☐ Residential ☐ Non-Residential

I certify that the information above is accurate.

Applicant Signature _____

Date _____



Martin Mitchell has been interested in alternative energy since high school. While the 16 solar panels on his roof will save him roughly \$900 per year over the next 20 years, Martin's decision to generate his own energy stemmed from his sense of duty as a "responsible steward and a patriot."

Green Business Program

- Launched in Marin County in 2002
- Launched in Contra Costa County in 1998
- 434 businesses currently certified in Marin
- 36 businesses currently certified in Richmond
- Green businesses agree to:
 - comply with all applicable regulations and strive to exceed compliance
 - conserve energy, water, materials and other resources
 - develop and implement practices that prevent pollution and waste
 - be an environmentally responsible business within our community
 - strive for continuous improvement
- MEA to fund \$15,000 for County of Marin program
- MEA funds primarily support County of Marin Program Manager with potential for additional staff



SEED Program Update

Report from SEI Program Director on 4/15 indicates:

- Marin Healthcare District has signed the MOU
- Anticipate Tam USD's Board will consider MOU this month
- Central Marin & Ross Valley Sanitation discussing program at April Board meetings, no word yet on outcomes (Central Marin met 4/9, Ross Valley meets 4/17)
- Central Marin Police Authority also discussing program this week
- Marin County Office of Education staff still deliberating the MOU, as is Novato staff. Hoping to have a firm decision this week or next
- Optony confirmed there is nothing suitable at Larkspur except PD station (which is being tracked under Central Marin Police Authority)

Note – report comes directly from SEI/Optony Program Managers representing SEED Fund progress to date

Questions?





renewable. reliable. affordable.

Standard Offer Program

MEA Technical Committee

April 22, 2013



April 22, 2013

Overview

- **Re-Cap of Last Discussion**
- **Results of Analysis**
 - **Agriculture**
 - **Commercial and Industrial**
 - **Streetlights**
- **Other Standard Offer Program Results**
- **Next Steps**

Re-Cap of Last Discussion

Focusing the Program on a Specific Sector

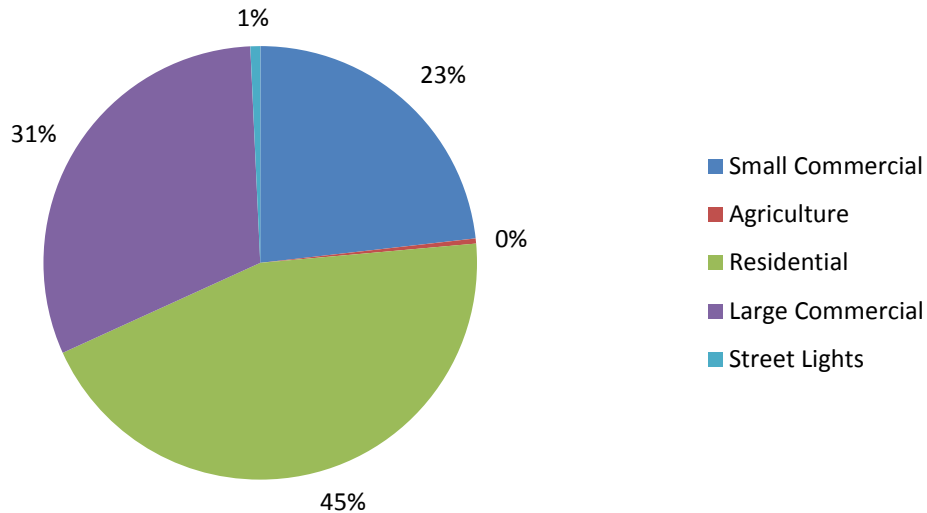
- **What is the available potential in the following sectors?**
 - **Agriculture**
 - **Streetlights**
 - **Commercial and Industrial**
- **How does the potential compare to other available programs?**

How to Design the Program to Accomplish Objectives?

- **Total Program Size**
- **Setting the Price**

Total Portfolio Electricity Consumption

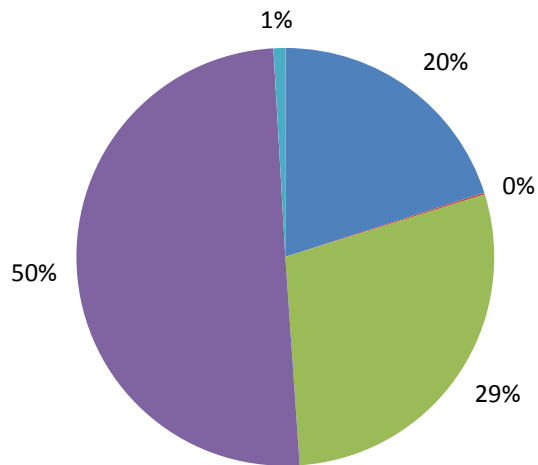
Electricity Usage by Sector (Territory Wide)



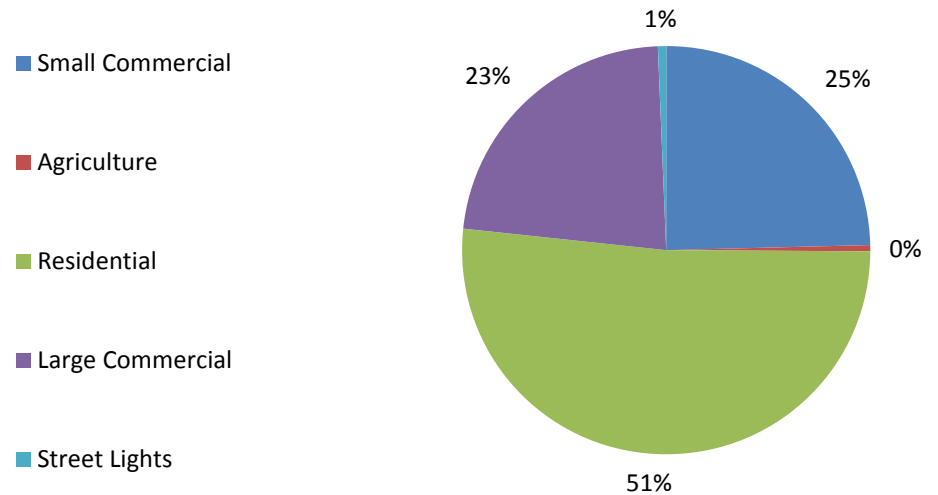
- **Residential and Commercial Electricity Use are Largest Sectors**
- **Residential and Small Commercial Served by Existing Programs**
 - Energy Upgrade California
 - SmartLights

Richmond Versus Marin

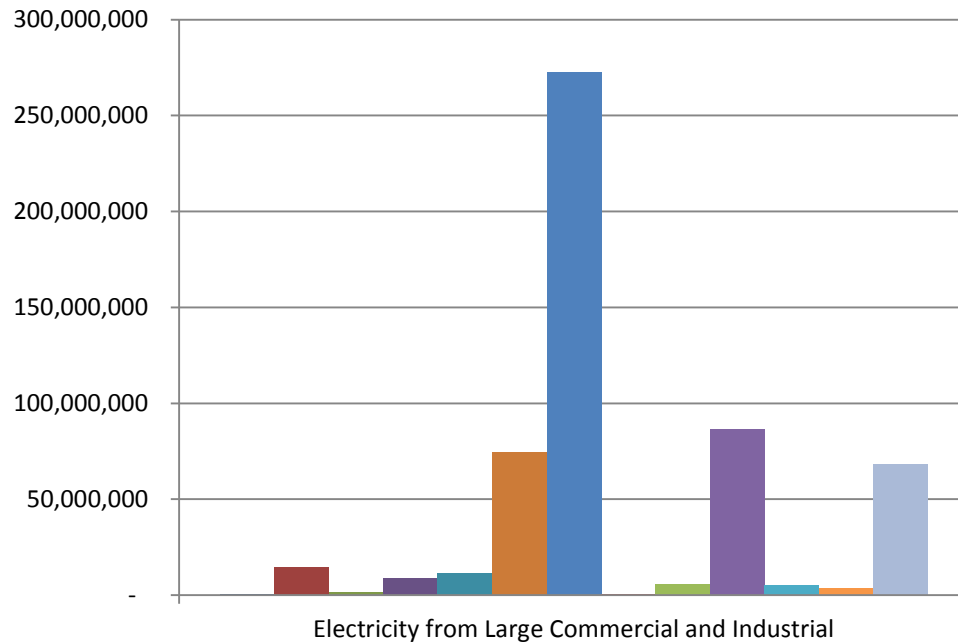
Electricity Use by Sector (City of Richmond)



Electricity Use by Sector (Marin Only)



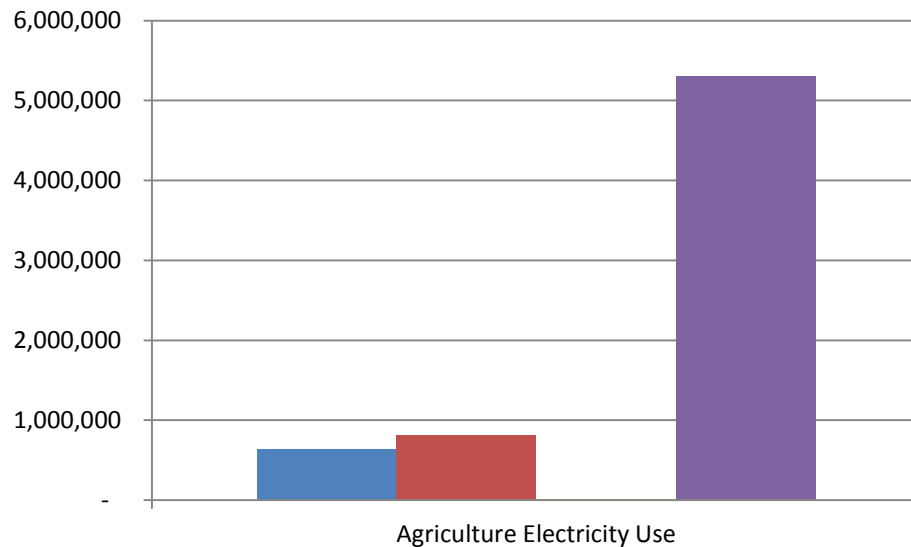
Potential Available in Commercial and Industrial Sectors



**Total Commercial and Industrial
Potential of 551,661,167 kWh**

- Commercial and Industrial Programs Currently Served by both Technology Specific Rebates as well as Commercial Calculated Rebates
- Opportunities for Load Shifting to Assist with Integration of Specific Large Customers
- Significant Potential Available

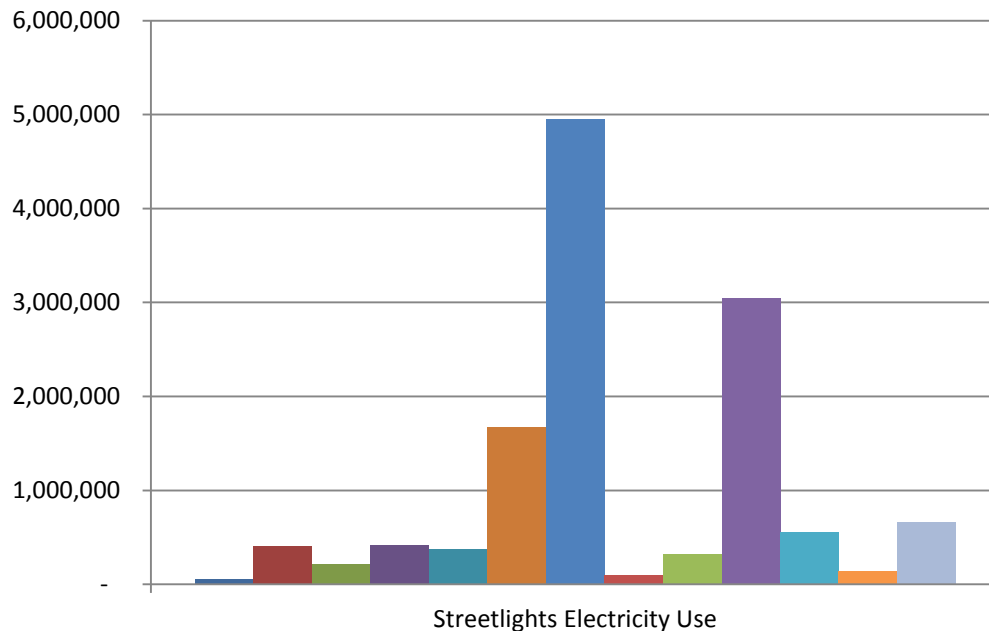
Potential Available in Agriculture



**Total Agricultural Potential of
6,760,076 kWh**

- The MCE Agricultural Rate is Currently Cross Subsidized
- PG&E Offers Agricultural Rebates; Technology Specific
- Agriculture Customers Also Eligible for Commercial Calculated Incentive Programs and Demand Response Programs
- Alternative Rate Schedule Available Through PG&E

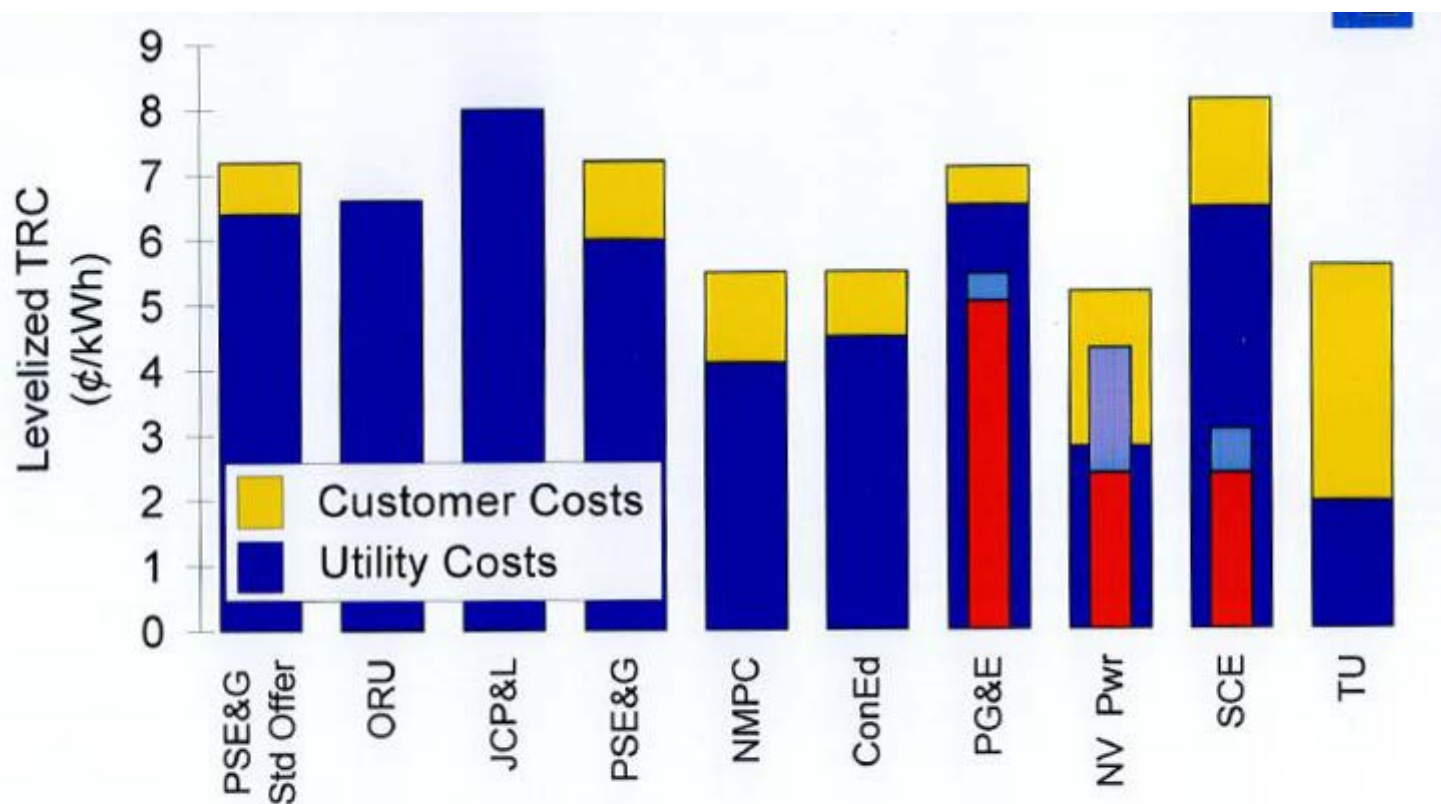
Potential Available in Streetlights



**Total Streetlight Potential of
12,923,753 kWh**

- The MCE Streetlight Rate is Currently Cross Subsidized
- Challenge: Ownership Structure May Vary by City
- PG&E Provides Rebates and Alternative Rate Schedule to Specific Streetlight Customers – Must Own Streetlights and be on Non-Metered Rate

Other Standard Offer Program Results



Size (MW)	40	6	10	29	20	6	18	14	32	68
Contract Term	10	15	15	10	15	14	10	11	4	10
Measure Life	-	-	-	-	-	-	20	14	16	-

Source: Goldman, Charles. "Third Party Energy Efficiency Performance-based Delivery Models." Presentation to Oregon Public Utilities Commissions; Energy Efficiency Power Purchase Agreements Workshop. April 5, 2012. Lawrence Berkeley National Labs.

MCE Program Constraints

- **Limited Budget**
 - **Envisioning ~\$100,000 for Incentives Depending on Outcome**
- **Desire to Focus on Electricity**
 - **Proof of Concept for Resource Adequacy Contributions**
- **Limited Time Frame**
 - **Don't Anticipate 5+ Year Contract Terms as in Other Programs**
- **Need to Serve "Niche" Markets**
 - **Direction from the CPUC**
 - **If Seeking to "Shift Risk," Would Need to 'Out-Pay' Relative to Existing Rebate Programs**

MCE Program Opportunity

- **Given Small Size, Opportunity to Target ‘Gaps’ that aren’t Major Load Contributors (i.e. Agriculture)**
 - **Could Set Prices Based on Program Competition**
- **Performance Guarantee Means Even Small Test Case Will Contribute Significantly to Our Portfolio**
 - **\$100,000 at \$0.10 / kWh is 1,000,000 kWh savings!**
- **Smaller Size of Program May Create More Opportunity for Smaller Contractors / Projects**

Next Steps

- **Follow Up Conversation with Lawrence Berkeley National Lab to Help Focus Program Design According to Program Objectives**
- **Revised Program Implementation Plan to Reflect Updated Program Design**
- **Updated Presentation at Board Meeting in May**
- **Develop EM&V Framework**
 - **Internal to Bidder?**
 - **Administered by MEA?**
- **Develop Draft RFP**
- **Targeting Fall Issue of RFP**

Questions? Comments?

