## The Dollars and Sense of Energy Efficiency: A Local Government Regional Webcast

May 15, 2014 10:00am – 12:00pm



## **Local Government Commission**

We are a nonprofit organization that fosters innovation in local environmental sustainability, economic prosperity and social equity.





#### What we do...

The LGC is helping to transform communities through inspiration, practical assistance and a network of visionary local elected officials and other community leaders.

#### How we do it...

- ✓ Workshops and Trainings
- ✓ Participatory Planning and Design Work
- ✓ Policy Development Assistance
- ✓ Tours of Model Projects
- ✓ Networking Events
- ✓ Annual and Biennial Conferences





## Join Our Network of 700 + Members

#### For more information:

Contact Erin Hauge at 916-448-1198 or visit lgc.org/membership

## **Membership Benefits**

- Access to the latest best practices
- ✓ A peer network of leading elected officials
- ✓ Access to thought leaders in a range of policy arenas
- Local, regional, statewide and national events on cutting edge issues



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Local Government Commission

www.lgc.org

# Statewide Energy Efficiency Collaborative

#### AN ALLIANCE TO SUPPORT LOCAL GOVERNMENT

The Statewide Energy Efficiency Collaborative (SEEC) is an alliance to help cities and counties reduce greenhouse gas emissions and save energy. SEEC is a collaboration between three statewide non-profit organizations and California's four Investor Owned Utilities.









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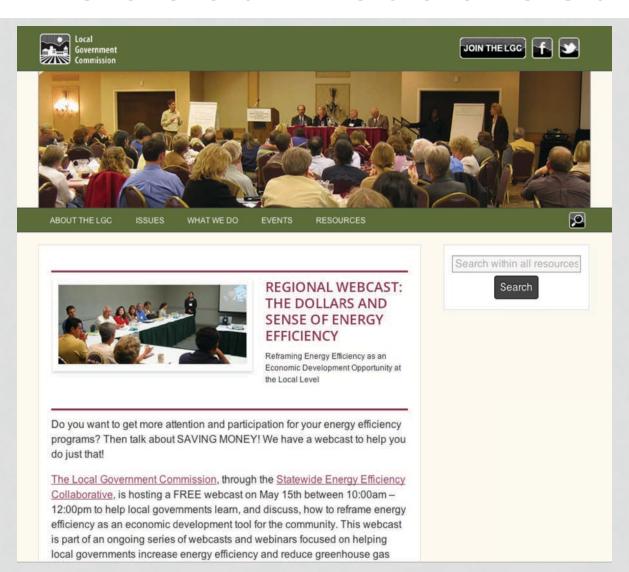
## Webcast Logistics

#### **Questions for Remote Participants:**

At any point during the webcast, you can type your question into the "Chat" text box and click send.
Questions will be read aloud at after all presentations are completed, as time permits.



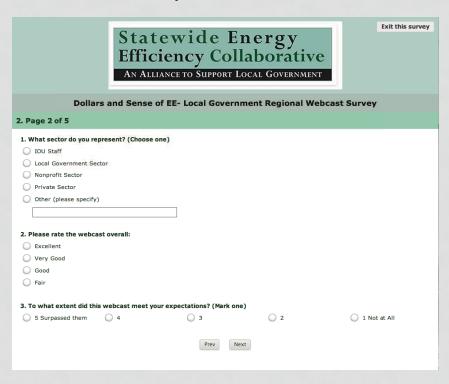
## Webcast Resources



http://www.lgc.org/dollars-and-sense-energy-efficiency

## Webcast Survey

A survey will be sent to you a few days after the webcast – please take 5 minutes to provide us with input which will help inform future webinars.



## Webcast Agenda

#### 10:00am: Introductions and Webcast Objectives

Jenny Woods, Local Government Commission

#### 10:10am: Speaker Presentations

- -Jim Barrett, Chief Economist and Eric Mackres, Local Policy Manager and Senior Researcher, American Council for an Energy-Efficient Economy
- -Jodi Pincus-Cabrera, Executive Director, Rising Sun Energy Center
- -Mayor Pro Tem Chip Holloway, City of Ridgecrest
- -Demetra McBride, Director of Climate Action and Sustainability, County of Santa Clara

#### 11:05am: Regional Discussion

Refer to your agenda for discussion questions during this time.

#### 11:45am: Regional Report Outs, Next Steps, and Closing Remarks

Jenny Woods, Local Government Commission

12:00pm: Adjourn



# **Energy Efficiency and Local Economic Development**

Jim Barrett, Chief Economist & Eric Mackres, Local Policy Manager

May 15, 2014

**Local Government Commission webcast** 

## The American Council for an Energy-Efficient Economy (ACEEE)

- ACEEE is a 501(c)(3) nonprofit that acts as a catalyst to advance energy efficiency policies, programs, technologies, investments, & behaviors
- 50 staff; headquarters in Washington, D.C.
- Focus on end-use efficiency in industry, buildings, & transportation
- Other research in economic analysis; behavior; energy efficiency programs; & national, state, & local policy
- Funding:
  - Foundation Grants (52%)
  - Contract Work & Gov't. Grants (20%)
  - Conferences & Publications (20%)
  - Contributions & Other (8%)



www.aceee.org/@ACEEEdc



## **Examples of Efficiency Measures**









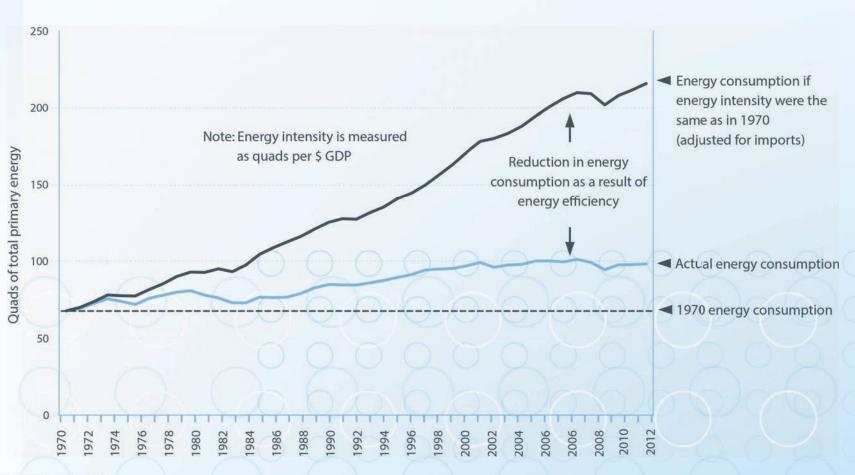






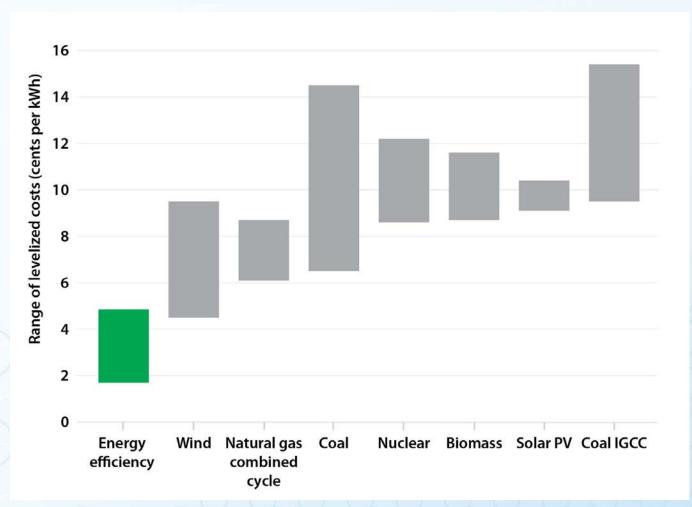


# Effect of energy efficiency on total demand over time





## **Energy Efficiency is the Cheapest**



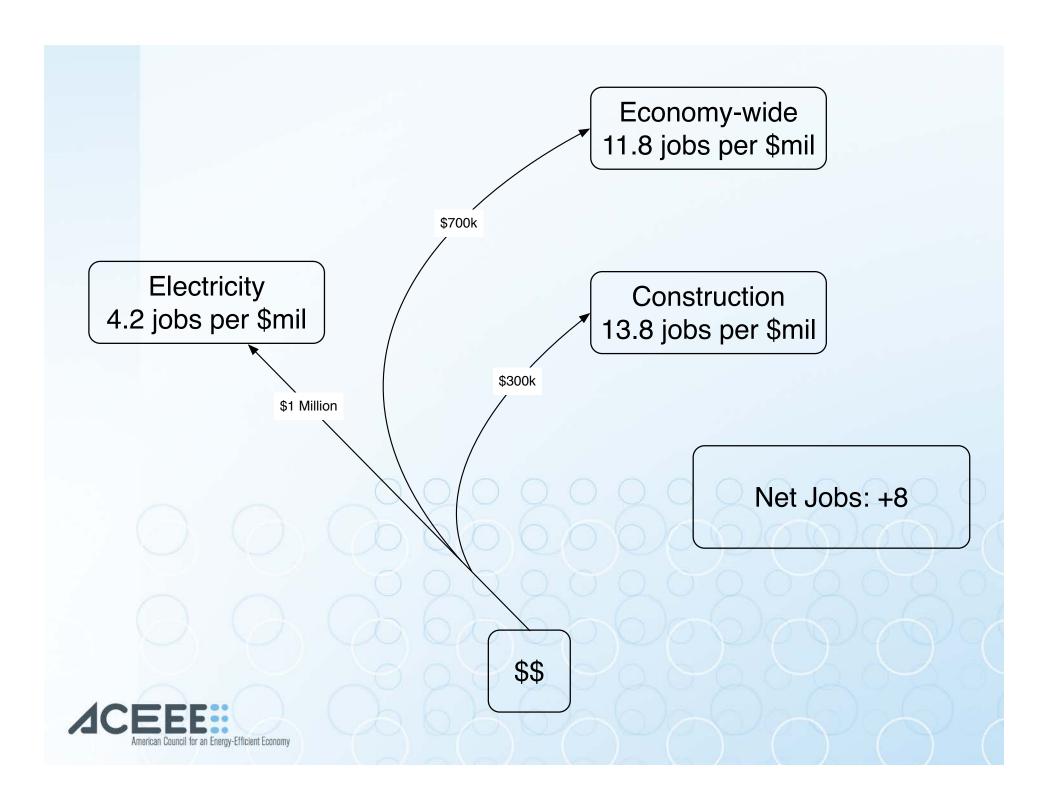


Molina. 2014. The Best Value for America's Energy Dollar: A National Review of the Cost of Utility Energy Efficiency Programs. Source: Energy efficiency data represent the results from Molina 2014 for utility program costs (range of four-year averages for 2009-2012); supply costs are from Lazard 2013.

## **Energy efficiency creates jobs**

Construction 11 jobs per \$mil First Year **Electricity** 1.5 jobs per \$mil Next 20 years **Economy-wide** 16 jobs per \$mil





#### The Economic Opportunity Value Chain of Energy Efficiency

Energy Efficiency Measures (jobs, local and high quality)

Energy Bill Savings (consumer cost savings) Productive Spending/

→ Local Investments

(jobs, local)

- Local workers and businesses benefit
  - Construction is local
- Efficiency jobs are good jobs
  - Average wage is \$4,900 above the national median
  - 49% held by employees with high school education or less

Bill savings add up...

- Low-income families spend 17% of their annual income on energy costs.
- Utilities are the largest operating expense in multifamily housing

 Utility bill reductions result in 1.16x the local value-added benefit of bill payments.



# Strategies to Realize the Economic Opportunity Benefits of Efficiency

- 1. Do more energy efficiency
- 2. Target cash- and credit-poor sectors (low-income, small business)
- 3. Include non-energy goals/benefits in efficiency program designs
- 4. Implement "high road" policies and agreements



## 1. Do more energy efficiency

- Multiplier effect of local energy savings will benefit the entire community
- New programs or partnerships to better leverage funds or increase participation
  - Information knowledge can lead to action
    - Ex. Benchmarking & disclosure requirements (10 cities)
  - Finance more investment with fewer incentives
    - Ex. Boulder County EnergySmart/ClimateSmart Loans
  - Utility partnerships reach new markets/projects
    - Ex. Renew Boston, CA Local Gov't Partnerships



# 2. Target cash- and credit-poor sectors

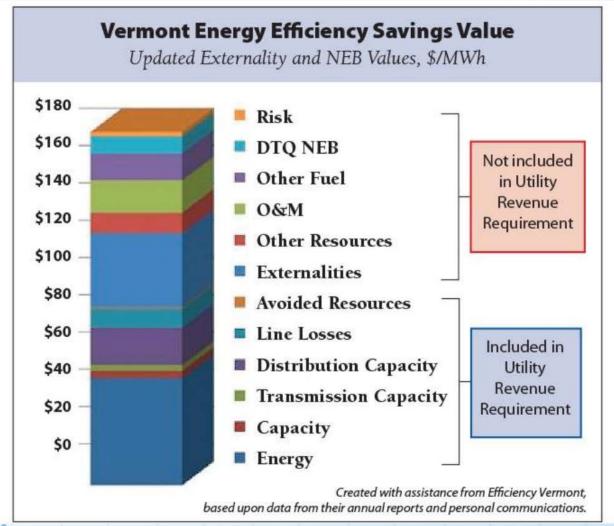
- E.g. Low-income, multifamily, small business
  - Large energy costs in percentage terms
  - Likely to spend savings locally or reinvest it in their business
  - But hard to reach with programs
- Program Mechanisms
  - Low-income ex. WAP, MA LEAN
  - Multifamily ex. Energy Savers, NYSERDA MPP
  - Small business ex. BIDs, TIF, SBA, Green Business Challenge

## 3. Include non-energy goals/ benefits in program designs

- Allows more measures and deeper energy savings to be considered cost-effective
- More incentives = more projects = more energy savings
- Ex. DC SEU jobs goals, Vermont benefits accounting



## The "Layer Cake" of Efficiency Benefits



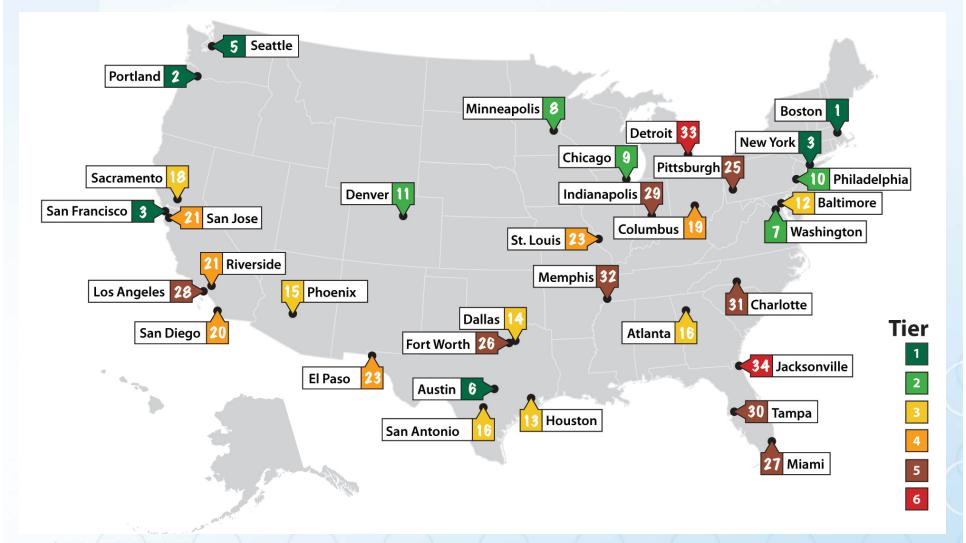


# 4. Implement "high road" policies and agreements

- Community workforce agreements and related mechanisms
  - Local hiring, living wages and benefits, career development, and training opportunities
- Benefits of investments accrue locally and to disadvantaged communities and workers
- Ex. Clean Energy Works Oregon residential retrofit, Emerald Cities/RENEW Cuyahoga, CA WE&T Guidance Plan



#### 2013 City Energy Efficiency Scorecard Results





### **State and Local Policy Database**







#### **Thanks**

jbarrett@aceee.org
emackres@aceee.org

#### Role of Workforce Development in the Energy Efficiency Sector



BUILDING HEALTHY COMMUNITIES THROUGH CLIMATE SOLUTIONS AND GREEN CAREER PATHWAYS.

Local Government Commission Presentation

May 15<sup>th</sup>, 2014

**Jodi Pincus** 







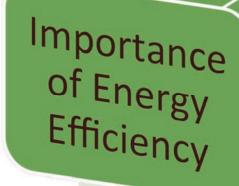


## **RISING SUN**

- 501c3 non-profit established in 1994
- Energy efficiency and water conservation services
- Workforce Development- training, employment and education in green sector



#### **ENERGY EFFICIENCY IMPLEMENATION**



Policies, Program & Plans

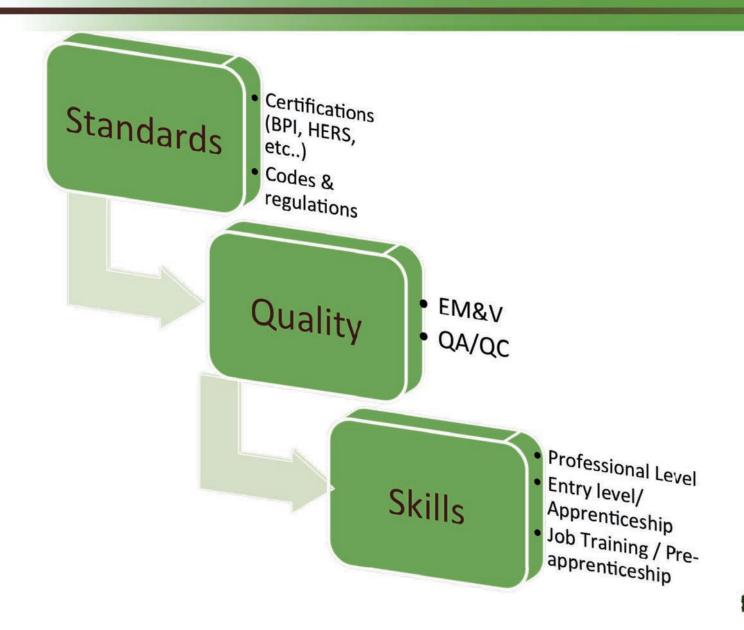
Skilled Workforce



### POLICIES, PROGRAMS & PLANS

- AB32 (which includes cap and trade)
  - □ SB535/AB1532 Direct spending of cap and trade resources
- ☐ Prop 39 EE retrofits in schools
- Title 24 building codes
- CPUC Strategic Plan & Energy Efficiency Portfolio
  - ☐ The Public Purpose charge
  - ☐ EE programs: third party, LGP, Core & ESAP
- WAP/LIHEAP low-income EE
- City Climate Action Plans
- New local energy authorities/Community Choice Aggregation
- Federal grants and programs for public building retrofits, research and development, and job training

## SKILLED WORKFORCE = ENERGY SAVINGS





## **ENERGY EFFICIENCY JOBS**

**Energy auditors** 

Insulation and weatherization technicians

**HVAC** technicians and installers

**Building System Engineers** 

Manufacturers, distributors, and salespeople of energy efficient products

Research and development staff

State energy and/or environment office staff



## **BUILDING A GREEN ECONOMY**

### **Green Jobs**

- Good Jobs- living wages, skilled labor
- Local Jobs- Can't be Outsourced

## Reduce Energy Use, GHG Emissions

- Climate Action Targets
- State Goals



## **INCLUSIVE GREEN ECONOMY**

- Opportunity
  - ☐ Tackle unemployment for those hardest hit
    - Disadvantaged workers
    - Dislocated workers
    - ■Youth
  - ☐ Build skills for emerging market
  - ■Bring people into entry level jobs with room for advancement

All While Reducing GHGs and Meeting Targets!



## **MISSION**

To empower individuals to achieve environmental and economic sustainability for themselves and their communities



## **FOCUS AREAS**



Training, employment, workforce development for youth and adults



Direct install energy efficiency and water conservation services



Customer Education & Behavior Change



## **CURRENT PROGRAMS**

### YOUTH

- California Youth Energy Services (CYES)
- Leaders-In-Field-Training (LIFT) Program
- Youth Council

## **ADULTS**

- Green Energy Training Services (GETS)
  - ☐ Construction, Energy Efficiency, BPI, MC3 Pre-Apprenticeship, Soft Skills, Math, Sales & Marketing





## **CYES OVERVIEW**

- Summer and after-school program
- Operates in Alameda, Contra Costa, Marin & Solano counties
- ☐ Train and employ **135** youth/year, ages 15-22
- ☐ Youth deliver **Green House Calls** to over **3,700** homes/year: NO-COST energy efficiency and water conservation installations
- Focus on hard-to-reach residents: renters, moderate income, non-native English speakers...



## **GREEN HOUSE CALLS**

#### Free assessment, installation, education:

- ☐ Walkthrough and assessment
- Measures Installed
  - ☐ Lighting: LEDs, CFLs, torchieres, night lights
  - Water: aerators & showerheads
  - ☐ Other: pipe wrap, clotheslines, power-strips
- Water Survey
  - Water meter reading
  - Water pressure
  - Toilet leaks
  - GPM of all fixtures
  - ☐ Toilet flapper and overflow leak assessment
  - Toilet flush volume
  - ☐ High-efficient clothes washers
  - Irrigation and landscape data
- E-waste pick up
- Behavior Survey, Education, Customized Client Report





## **RESULTS: 2000-2013**

- 1000+ youth hired
- 23,000+ homes served
- 98.5 million kWh of electricity saved
- 3.3 million therms of natural gas saved
- 86,000 metric tons of CO2 reduced





## THE CYES TRIPLE WIN

#### **PEOPLE**

- Local jobs for local youth
- Youth development & leadership
- No Cost service for local residents

#### **PLANET**

- Reduce local GHG emissions
- Conserve water & energy
- Reduce waste

#### **PROSPERITY**

- Lower utility bills
- Build a sustainable community





### **GREEN ENERGY TRAINING SERVICES**

#### **GETS CORE**

- Free 9-week training for entry level construction & energy efficiency careers
- ☐ Building Performance Grade 1
- Pre-apprenticeship
- GETS Certificate of Completion
- Case Management
  - ☐ Individuals with barriers to employment, dislocated workers
- Job Placement Assistance

#### **GETS MODULES**

- Paid, scholarship and no-cost training
- BPI Building Analyst Training and Certification
- Solar Trainings
- ☐ Sales & Marketing

**Goal: Entry-Level Job with Career Advancement Opportunities** 

**Goal: Career Advancement Opportunities** 



## **GETS EXPERIENCE**

- Trained over 450 adults since 2009
- GETS curriculum developed with employer input
- BPI test center & curriculum approved by BPI
- Approved Multi-Craft Core Curriculum provider/Preapprenticeship
- Employer Council provides ongoing feedback on curriculum & industry trends
- Experience offering training in-house & off-site



## **RESULTS: 2009-2013**

88% Graduation Rate Over 450 adults trained in GETS Core

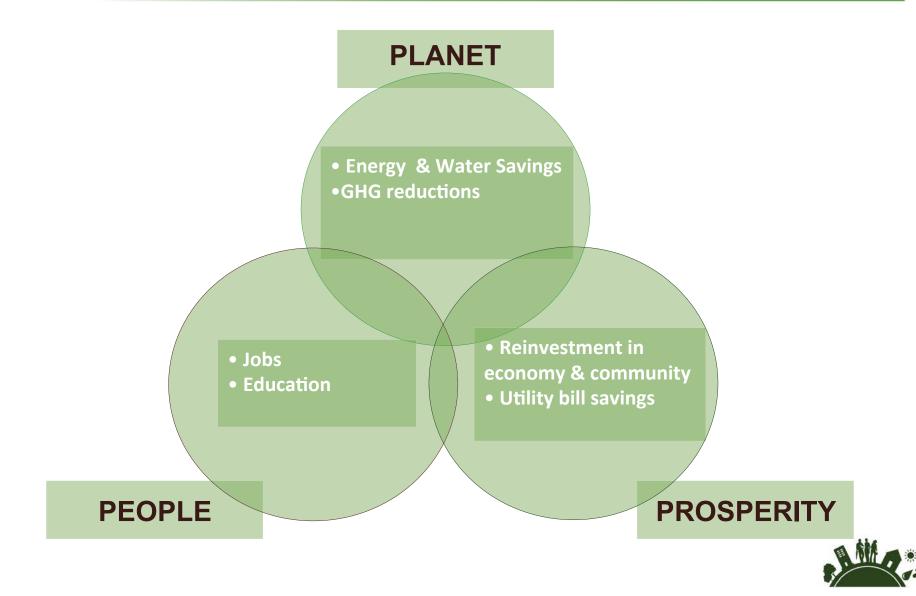
50% placed in Green Jobs

72% placed in Employment





## TRIPLE WIN STRATEGY



## **QUESTIONS?**

Jodi Pincus, Executive Director <a href="mailto:pincus@risingsunenergy.org">pincus@risingsunenergy.org</a>



# Energy Efficiency program benefits for the City of Ridgecrest

Marshall "Chip" Holloway, Mayor Pro Tem Thursday, May 15, 2014

## Welcome to Ridgecrest











## **Energy Efficiency and Renewables**

- Solar Array at City Hall
- Energy efficiency in city facilities
- HERO Program
- Energy Action Plan
- Southern California Edison Direct Install Program
- Staff Training
- Outreach Efforts
  - Take 5 for Energy Efficiency Door-to-Door Campaign
  - Ridgecrest Home Show February 2013
  - Building Safety Month May 2014

#### Renewable Energy-Solar

- Online March 17, 2011. Owned and maintained by the city.
- Rated to generate 1,085,270 kWh per year
- Generated 495.9 KW
- The Performance Based Incentive (PBI) through the California Solar Incentive (CSI) has been approved for this project at 26 cents per kWh.
- The incentive is projected to yield \$1,410,851 over the first five years of system operation.



#### Energy Leader Partnership Program

- Partners with Southern California Edison
- Joined the Kern Energy Watch Partnership in 2013
  - Added PG&E to the relationship
- Participate in the Kern Region Energy Action Plans (Kern REAP) program 2010-present



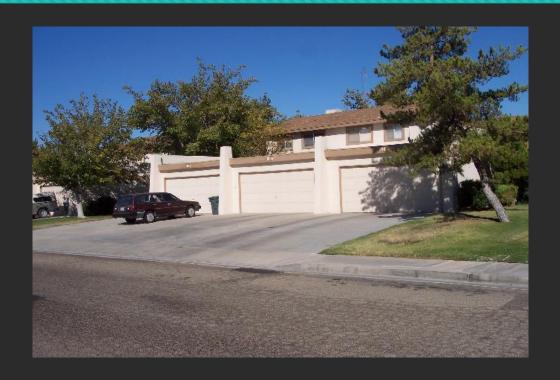






## **HERO Program**

www.Heroprogram.com 1-855-HERO-411



#### Energy Action Plan

#### **Energy Goals:**

- Reduce energy use by 20% below 2005 baseline by 2020
- Install Solar PV and thermal on all new and retrofit projects to generate 15% of electrical energy use by 2020
- Use the US EPA Portfolio Manager program to benchmark facilities. Work to score 75 or better.
- Reduce outdoor lighting energy consumption by 15% below 2005 baseline by 2020
- Reduce water usage by 5% below 2005 baseline at city facilities by 2020.



#### **Staff Training**

Ridgecrest employees participate in training opportunities.



#### Southern California Edison Resources

Assistance from various SCE departments:

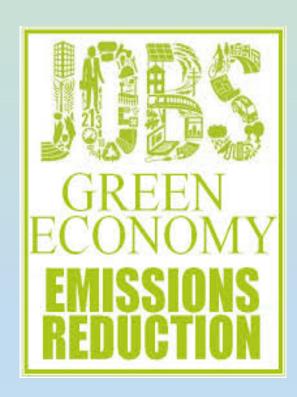
- Account Representative
- Technical facility audits and expertise
- Government Affairs
- Energy Watch Program Manager
- Marketing and Outreach
- Direct Install Program

#### Outreach efforts

- SCE Mobile Education Unit at the Ridgecrest Home Show
- Take 5 for Energy Efficiency Door-to-door campaign
- May 2014 Building Safety Month



## Strategies for the Energy-Economy Nexus



## A Case Study – County of Santa Clara EUC Funded Under ARRA

#### \$1.9 Million in ARRA Investment Generated:

- More than \$1.2 million in EE incentives
- Approximately \$8 million in direct local economic impact
- Participating Contractors increased staff by average of 26%
- Average per project EE savings of 29%

Program Driver #1— whole home assessment audit of up to 80% (remove the "high price of uncertainty")

Program Driver #2 – cross-training of contractors on EE benefits and co-benefits, with coaching on messaging and branding

Program Driver #3 – market segmentation and contractor-facing ME&O tactics

# The Nexus of Program Drivers # 2 and #3

- Market segmentation know your target audiences
- Link messages to what people value
  - Public Health
  - Home Performance
  - Home Value and Competitiveness
  - Energy Efficiency Upgrades Cure Other (Mostly Unseen) House Ills
- Consider the contractor your client, as well as consumers
- Create, enhance, and sustain the contractorcustomer nexus

## Any Questions?

Demetra J. McBride, Director, Office of Sustainability and Climate

County of Santa Clara

Demetra.mcbride@ceo.sccgov.org



## Regional Discussion Questions

- Are there opportunities to better infuse economic development <u>opportunities</u> in your energy activities, either locally or regionally?
- Are there opportunities to better incorporate economic <u>messaging</u> in your energy activities, either locally or regionally?
- What kind of economic messaging (format, messages, slogans, etc.) would be most successful in your region and what resources or information (data, time, money, media support) do you need to develop or utilize that messaging?
- Are there opportunities to leverage or collaborate around this topic within the region?
- Is there support that SEEC, the Statewide Local Government Energy Efficiency Best Practices Coordinator, or IOUs can provide to support your efforts?
- Are there any other tools or resources you need or would find helpful to support your efforts?
- Are there any clear next steps that can come from these discussions?

# The Dollars and Sense of Energy Efficiency Local Government Regional Webcast

#### Presenters:

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