

ARRA Programs Effecting Multi-family



Agenda:

- **Sophia Hartkopf**
 - Heschong Mahone Group, Inc
- **Heather Larson**
 - Stopwaste.org, Green Building in Alameda County
- **Wayne Waite**
 - Housing and Urban Development
- **Annie Henderson**
 - Renewable Funding
- **Matt Schwartz**
 - California Housing Partnership Corporation

ARRA Programs Effecting Multi-family



Program	Region	Funding (millions)	Type
CaliforniaFIRST	Statewide	16.5	Municipal Financing
N Coast Energy Independence	North Coast	4.4	Municipal Financing
SF Sustainable Financing	San Francisco	2	Municipal Financing
Sonoma County Energy Independence	Sonoma	2.5	Residential Retrofit
Home Performance	Sacramento Region	20	Residential Retrofit
Retrofit Bay Area	Assoc. of Bay Area Governments	10.8	Residential Retrofit
Moderate Income Sustainable Tech.	Rural Counties	16.5	Residential Retrofit
Affordable Multi-Family Retrofit	Bay Area	2.9	Residential Retrofit

ARRA State Energy Program



- **California Energy Commission**
 - 110 million total

Program Type	Funding
<i>Municipal Financing</i>	~30 million
Municipal & Commercial Targeted Measure Retrofit	~30 million
<i>Comprehensive Residential Retrofit</i>	~50 million
TOTAL	110 million

Multifamily Retrofit Standards



**HOUSING CALIFORNIA
CONFERENCE**
APRIL 28TH, 2010

STOPWASTE.ORG
Reducing the Waste Stream for Alameda County

Presentation Summary



- **Overview of Multifamily Retrofit Activities**
 - Multifamily HERCC
- **SEP II programs with multifamily components:**
 - ABAG, SMUD, SFMOH
- **Technical Analysis**
 - Energy Improvements



Overview of MF Retrofit Activities



- **Stimulus funding focus is on retrofits, not new homes**
- **Home Energy Retrofit Coordinating Committee (HERCC)- Multifamily sub-group**
 - Working group convened by EPA Region IX
 - Develop multifamily consensus recommendations for financing districts & home retrofit programs
- **Current retrofit activities**
 - EECEBG
 - SEP II (ABAG, SFMOH, SMUD)
 - PACE
 - Federal programs (GRP, HP w/ ES, HOME, NSP, WAP)
 - Utility



ABAG SEP II Multifamily Elements



- **Standards**

- HERS II interim low-rise MF audit protocols
- **High-rise proxy to HERS II**
- Prescriptive & performance packages

- **Training & Tools**

- MF Building Analyst & Operator Trainings
 - ✦ May 17th 2010
- **Multifamily Asset Manger Tool**
- **EPRO software module for HRMF**
- Professional Certification requirements



ABAG SEP II Multifamily Elements



- **Quantification**

- Joint EM&V plan & consistent reporting
- QA protocols & plan
- Multifamily tracking system & climate calculator
- **Benchmarking**

- **Financing**

- Whole-Building Performance Rebates- SMUD SEP II
- **MF financing through PACE districts**
- Rental/split incentive issue
- Underwriting issues: cost, energy savings & take-back

Multifamily Technical Analysis



- **Performance Analysis**

- What does a 20% or 40% energy improvement look like for MF?
 - ✦ See hand-out
- Software programs
 - ✦ Energy Pro, HERS II, Treat

- **Audit Protocols**



GreenPoint Rated Existing Home Multifamily

- **Integrated to ARRA funded programs**
 - 5 Environmental Categories, including Energy Efficiency
- **Based on current Rating system for MF New Homes + SF Existing Homes**
- **Whole House & Elements Labels**
- **Pilot projects:**
 - Currently working with 13 projects to pilot GPR EHMF
 - 879 Multifamily Dwelling Units
 - 200 of the Dwelling Units are in High-rise buildings



SFMOH SEP II



- **\$2.9m SEP award to San Francisco to administer regional program**
- **Berkeley and Oakland are initial regional partners**
- **Open to other Bay Area jurisdictions**
- **Subcontractors are Enterprise and LIIF**
 - Loan Fund Managers
 - Provide technical support



Affordable Multifamily Retrofit



- **Energy and water efficiency retrofit program**
 - Continuation of Enterprise Green Retrofit Pilot
- **Technical support**
 - Development of audit and verification process
 - Alignment with HERS II and Home Performance with ENERGY STAR®
- **Funding support**
 - Debt and subsidies



Thank you!



Heather Larson: hlarson@stopwaste.org



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Climate Energy Sustainability

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Greening Multifamily Housing: *ARRA and Next Steps*

Housing California

April 2010

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HUD Role in Recovery Act

- *HUD's \$13.61B in funding under the Recovery Act supports 3 objectives:*
 - *Promoting Energy Efficiency & Creating Green Jobs*
 - *Unlocking the Credit Markets & Supporting "Shovel-Ready" Projects*
 - *Mitigating the Effects of Foreclosures & Preventing Community Decline*

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HUD Recovery Act Metrics

- HUD estimates show that major energy efficiency Recovery Act programs will:
 - *Save \$30 million in annual energy*
 - *Save 1.57 trillion BTUs in annual energy consumption*
 - *Reduce annual greenhouse gas emissions by 92,000 metric tons*
 - *35,000 jobs*

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Related Energy Priorities

- **Streamlining Weatherization Assistance in Multifamily Housing**
- **HUD-DOE Partnership**
 - *Residential energy labeling*
 - *New financing tools that will enable national scale investment in EE retrofits*
 - *Utilize revolving funds, expanded energy mortgage financing tools*
- **HUD-DOT Sustainability Partnership**

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Recovery Act – California Update *PIH – Green Retrofits*

- **Program Overview:**

- *Funding: \$600 million (Category 4)*

- *Purposes:*

- Lower operating costs
- Conserve energy water, materials and other resources
- Renewable energy sources
- Enhance local and regional ecosystems

- *PHA Funding Caps ranges from \$1,000 to \$3,000 per unit depending on PHA Size*

- *Prescriptive and Performance Criteria*

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California – *PIH Retrofit Report*

PIH Funding Category	California – Approved Proposals	California – Unfunded Applications
Moderate Retrofit <i>588 applications</i> <i>\$568 million requested</i>	15 projects \$35.4 million	32 projects \$8.7 million
New Construction Substantial Rehab.	1 project \$1.3 million	

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California Update MFH - Green Retrofit Program

- **Program Overview**

- **Funding: \$250 million (Loans and Grants)**
- **Up to \$15,000/unit (Average \$10,000)**
- **Initial Feasibility Assessment:**
 - Cash flows and economic standard;
 - Financial ratio threshold (by building type)
- **PAE Due Diligence/ Underwriting**
 - Green Physical Needs Assessment
 - Recommend Green Retrofit Plan
- **Green Retrofit Plan**
 - Owner acceptance 75% of items (by cost)

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California – *MFH Retrofit Report*

MFH Green Retrofit

California – Projects Assigned

California – Projects Not Assigned

~ 750 applications
(75 from California)
~ 70,000 units
(6,826 from California)

25 projects
1,697 units

50 projects
4,129 units

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EECBG – RAMP UP Competitive Program

- **\$450 million competition**
- **Objectives:**
 - *Transform energy markets*
 - *Program Sustainability*
- **Priorities:**
 - *Leveraging w/multiple governmental entities*
 - *Integration of renewables with efficiency*
 - *Implementation readiness*
 - *Capacity to achieve measurable goals*
 - *Job creation and retention*

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California – EECBG RAMP UP Competitive Program

- **Retrofit California - Los Angeles County, California (\$30 Million):**
 - *Partnership with utilities and cities and counties including Sacramento and ABAG*
 - *Objectives:*
 - Accelerate whole neighborhood building energy retrofits
 - Demonstrate innovative, replicable retrofit models
 - Provide new financing options
 - Public education
 - Leverage group purchases to lower costs and enhance delivery
 - Track data on energy savings and retrofit rates of return

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Weatherization Assistance (WAP)

- **Program Overview:**

- *\$5 billion*
- *Up to \$6,500/unit*
- *Up to 20% on training and TA*
 - Training & TA funds may be used to train contractors at the local agency level participating in the Program
- *Income Eligibility: 200% of poverty rate*
- *Multifamily Implementation:*
 - “In light of the Recovery Act funding, DOE suggests Grantees review any policies that are beyond the DOE minimum requirement that may impede the ability of the Grantee to meet production expectations (e.g., landlord contributions, percentage set asides, etc.).”

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California – *WAP Report*

- **California WAP Funding:**

- *Allocation - \$185 million*

- *Awarded - ~\$93 million*

- CSD expects the final 50% of the award to be issued in the fall 2010, provided they all meet our mid-program performance and expenditure benchmarks.

- *Program Implementation:*

- ~ \$157 million sub-allocated (per State Plan)
 - 40 Community Action Program agencies
www.csd.ca.gov/
 - ~ 50,000 units
 - ~ \$130 million for program contract services
 - ~ \$13 million for training and technical services

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California – *WAP Opportunities*

	California – Public Housing	California – Multifamily
Weatherization Qualified Properties	157 properties	799 properties
Qualified Properties Unfunded by HUD ARRA Programs	29 projects	25 projects

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4 Step Process – *Adding Properties*

- Email energyaction@hud.gov
 - Project Identification
 - # of buildings
- HUD provides list of addresses from HUD database
- Property matches addresses and buildings and certifies
- HUD reviews income data; Qualifies buildings/properties; Submit to DOE

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California – *WAP Next Steps*

- Support to develop viable weatherization models
 - *Qualified Measures List Approach*
 - *“Whole Building” Model*
- Weatherization Outreach
 - *Matching*
 - *Resolution of policy and technical issues*
- Alternative Program Development

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Energy Innovation Fund

- **2010 Consolidation Appropriation Act**
- **Multifamily**
 - *\$25,000,000 for the Multifamily Energy Pilot*
- **Single Family**
 - *\$25,000,000 for Energy Efficient Mortgage Innovation pilot program*
- **Details in development**

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Portfolio Transformation

- **Strategic Goals to increase energy performance of HUD supported portfolio**
 - *Set Energy Efficient Green Retrofits Goal*
 - *Prioritize energy efficiency and green investment*
 - *Update construction and rehabilitation standards and guidelines*
 - *Incentives (e.g. UAs, Distributions of receipts, fees)*
 - *Training and Certifications*

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HUD-DOE Memorandum of Understanding

- Residential Performance Labeling
- Energy Efficient Mortgage Pilots
- Multifamily Energy Retrofit Goals/
Investment Standards
- Energy Data Collection and Analysis
- Energy Peer Review for EPCs
- Energy Star Bulk Purchasing:
www.QuantityQuotes.net

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Recovery Through Retrofit

- **Vice Presidential Task Force**
 - *Launched October 19, 2009*
 - www.whitehouse.gov/assets/documents/Recovery_Through_Retrofit_Final_Report.pdf
- **Objective:**
 - *Reduce energy consumption by 40%*
 - *Reduce GHG emission by 160 MMT/year*
 - *Self sustaining energy retrofit industry*
 - *Green jobs*

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Pending Proposals

- **HOME STAR (Proposed March 2010)**
 - *Certified Contractors*
 - *Single Family Focused*
 - *Silver Star Incentives (\$3.4 billion)*
 - Measure based (50% of costs up to \$3,000)
 - *Gold Star Incentives (\$1.7 billion)*
 - Performance based (50% of costs up to \$8,000)
 - *Program administration*
 - *Quality Assurance/*
 - *Financing*

The logo for the Office of Sustainable Housing and Communities is located in the top left corner. It features a circular emblem with a city skyline in the background. Three arrows point from left to right: a yellow arrow labeled 'Climate', a blue arrow labeled 'Energy', and a green arrow labeled 'Sustainability'.

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Climate Energy Sustainability

U.S. Department of Housing
and Urban Development

The background of the slide is a stylized cityscape. It features a dark grey ground plane with a grid pattern in the bottom left corner. In the middle ground, there are several buildings of varying heights and colors, including a prominent dark green house with yellow windows. The sky is a bright yellow-green with a grid pattern. The overall aesthetic is modern and urban.

Wayne Waite

**U.S. Department of Housing
and Urban Development**

Wayne.W.Waite@hud.gov

PACE Financing

Property Assessed Clean Energy

Annie Henderson | April 28, 2010

RENEWABLE  FUNDING





35%

carbon emissions
and energy use
in the U.S. comes
from buildings

27%



unemployment
U.S. construction
industry, April 2010

A photograph of a bright sun shining through a narrow opening in a dark rock formation, creating a starburst effect. The sun is positioned in the center of the frame, with rays of light extending outwards. The rock formations are dark and silhouetted against the bright light of the sun. The sky is a clear, deep blue.

A 'Breakthrough' Idea

PACE

Property Assessed Clean Energy

PACE: Simple, Effective Tool

City or county creates type of land-secured financing district or similar legal mechanism



Property owners voluntarily sign-up for financing and install energy projects



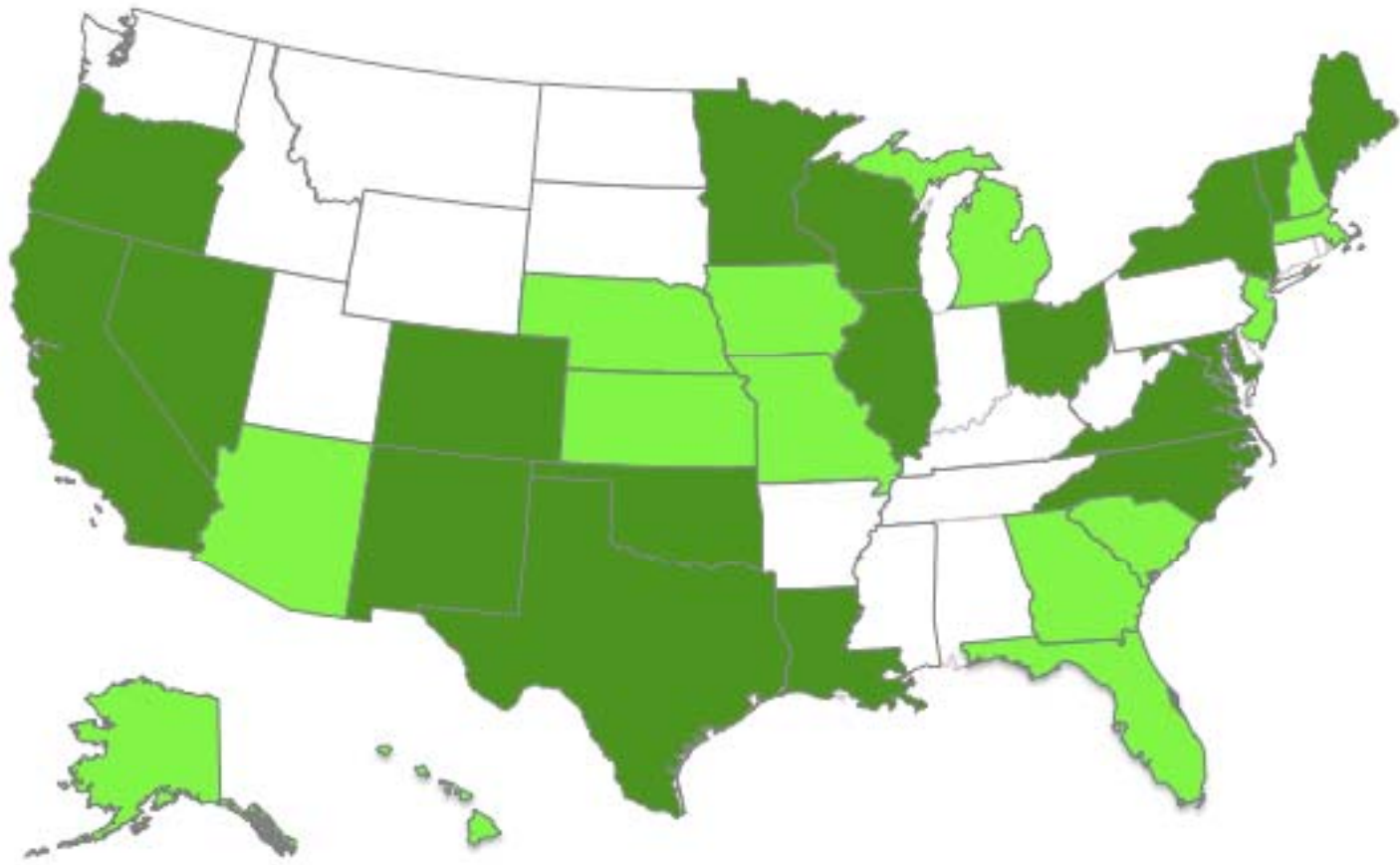
Proceeds from PACE bond or other financing provided to property owner to pay for energy project



Property owner repays bond through property tax bill (up to 20 years)



- States with PACE Legislation (18)
- States with PACE Legislation Pending (14)



“

We are going to make it a lot easier to borrow money. We are doing this by encouraging communities to give you the option to pay the expense of retrofitting your home by paying it back on your property taxes.

”

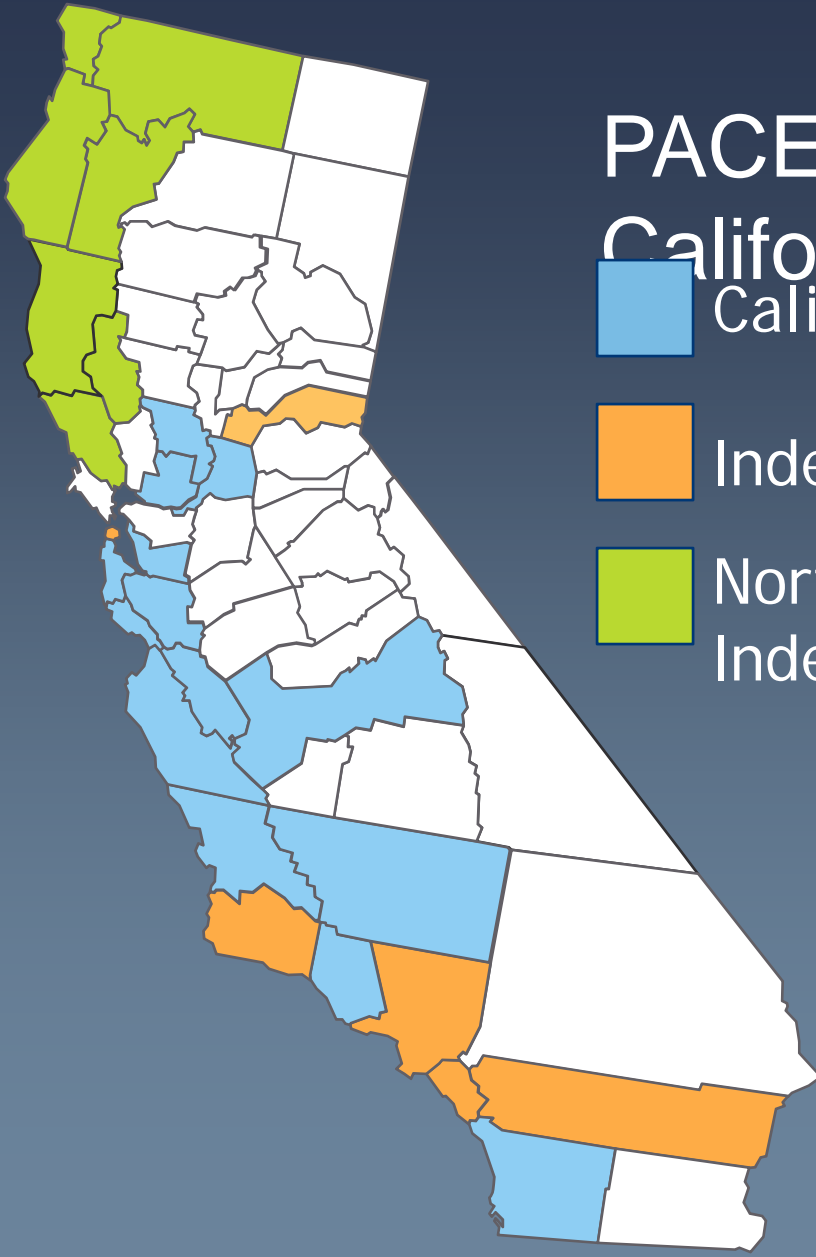


PACE Programs in California

 CaliforniaFIRST Program

 Independent Programs

 North Coast Energy Independence Program



PACE Programs in California

- ❖ Sonoma County Energy Independence Program (www.sonomacountyenergy.org)
 - ❖ Palm Desert Energy Independence Program (www.cityofpalmdesert.org)
 - ❖ mPOWER Placer (www.mpowerplacer.org)
 - ❖ GreenFinanceSF (www.greenfinancesf.org)
-
- ❖ LA County Energy Program (www.lacountyenergyprogram.org)
 - ❖ CaliforniaFIRST (www.CaliforniaFIRST.org)
 - ❖ emPowerSBC (www.empowesbc.org)
 - ❖ City of San Diego Clean Generation Program
 - ❖ North Coast Energy Independence Program

Support for PACE Programs

✿ Department of Energy Retrofit Ramp-Up

- \$30M for 4 regions within State: LA, Bay Area, San Diego, Sacramento

✿ Department of Energy EECBG

- Varying amounts of Energy Efficiency Conservation Block Grants

✿ Renewable Energy Trust Fund

- \$50M for statewide debt service reserve fund
- Enacted under SB 77, signed by the Governor on 4/21

CEC State Energy Program

✿ \$30.2M for Municipal Financing

- CaliforniaFIRST Pilot Program - \$16.5M
- City of Los Angeles - \$4.7M
- GreenFinanceSF Program - \$2.1M
- North Coast Energy Independence Program - \$4.4M
- Sonoma County Energy Independence Program - \$2.5M

SEP Funds for CaliforniaFIRST

\$16.5M

Rate
Buydown
\$3.5M

Set-Up
Fees
\$1.7M

Local
Marketing
\$8.5M

Contract
Management
\$2.6M

CEC State Energy Program

✿ \$50.3M for Residential Retrofit Programs

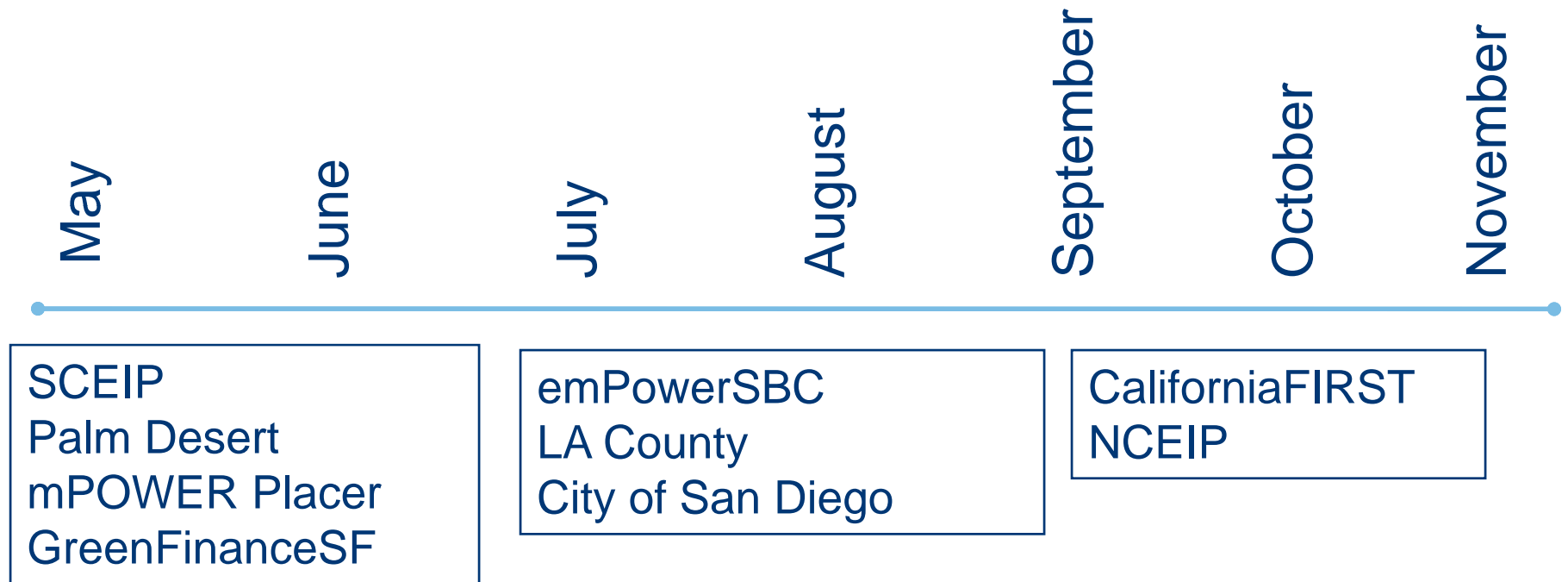
- ABAG Retrofit Bay Area Program - \$10.8M
- Affordable Multi-Family Retrofit Initiative - \$3M
- RCRC Moderate Income Sustainable Technology Program - \$16.5M
- SMUD Home Performance Program - \$20M

CEC State Energy Program

❖ \$29.6M for Municipal & Commercial Retrofit Programs

- EnergySmart Jobs Program – \$18.8M
- Energy Technology Assistance Program - \$5.9M
- City of Oakland QuEST Program - \$4.9M

Timeline

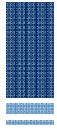


RENEWABLE  FUNDING

Slides prepared by Renewable Funding

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Stimulus Funding for Multi-family

Sophia Hartkopf

Heschong Mahone Group, Inc.

Housing California « 4.28.2010

Sacramento, CA



ARRA State Energy Program

- California Energy Commission
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Affordable Multifamily Retrofit

- \$2.9m SEP award to San Francisco to administer regional program
- Berkeley and Oakland are initial regional partners
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- Subcontractors are Enterprise and LIIF
 - Loan Fund Managers
 - Provide technical support



Affordable Multifamily Retrofit

- Energy and water efficiency retrofit program
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- Technical support
 - Development of audit and verification process
 - Alignment with HERS II and Home Performance with ENERGY STAR®
- Funding support
 - Debt and subsidies



The Challenge & Need

- Aging multi-family building stock
- Complicated financing mechanisms
 - Difficult to secure loans
- Regulated rents (ensure long-term affordability)
- Energy savings do not cover full cost of retrofit
- High utility costs compromise operations and cash flow
 - 25% of San Francisco's portfolio (7,000 units) suffer from higher than average utility costs
- Lack of private capital investment in affordable

Technical Support

- Whole-building analysis of capital needs
 - Including investment grade energy audit
- Energy/water data collection
- Assistance in assembling subsidies
- Verification and performance monitoring
- O&M training and education

Funding Support: Debt Financing

- **Green Retrofit Loan Fund**
 - Blended pool of ‘top loss’ (SEP \$s) and senior capital
 - ‘Top loss’ protects lenders from risk
 - Need high risk capital since estimated energy savings data not yet verified
- **SEP capital plays two key roles:**
 1. Lower the overall cost of capital loaned to projects
 2. Enable loans to be offered on non-secured basis

Funding Support: Leveraging Subsidies

Potential Sources of Subsidy

- Weatherization Assistance Program (WAP)
- Energy Efficiency Conservation Block Grants (EECBG)
- Federal, State, Local Solar Incentives
- Local affordable housing funds
- Lead Abatement Funds
- Utility Rebates

Funding Example

- Average retrofit cost = \$5,000

Scope Cost/Unit	Top Loss Debt (SEP Funds)	Private Capital Debt	Subsidies
\$5,000/unit	\$1,250	\$1,250	\$2,500

- Multi-family Project Examples

Property	Scope	Est. Cost	Cost/Unit
Property 1 (individually metered)	Gas-fired condensing boiler, energy efficient windows, lighting, etc.	\$242,332	\$11,539
Property 2 (master metered)	High efficiency boiler, windows, lighting, DHW VFDs, etc.	\$361,152	\$4,815
Property 3 (master metered)	Gas-fired condensing boiler, energy efficient windows, lighting, DHW pump motors, etc.	\$744,560	\$4,963

Data Tracking

- **At minimum:**
 - Basic project info
 - Tenant income
 - Retrofit measure costs
 - Budget
 - Energy savings: projections and actual
 - Actual savings: projections and actual
- **ENERGY STAR Portfolio Manager (benchmarking)**
 - 12 months of historical utility data

Next Steps

- **Program Roll-Out:**
 - San Francisco: Weatherization NOFA
 - Oakland and Berkeley: establishing pipeline
- **Energy Audits to be conducted Summer 2010**
- **Program Goal: 26 properties; 1,300 units**
- **For more information, contact:**
 - Maryann Leshin, Enterprise 415.395.4752
 - Brian Prater, LIIF 415.489.6157
 - Dan Adams, SF Mayor's Office of Housing (for SF properties) 415.701.5528