



# GREEN RETROFIT INITIATIVE

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*The mission of the Mayor's Office of Housing is to provide financing for the development, rehabilitation and purchase of affordable housing in San Francisco.*

**DOCKET**

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DATE

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# AFFORDABLE RENTAL HOUSING

- California has more than 13 million homes
- Nearly 6 million are rentals; the majority of rentals are multifamily
- More than 75% of very low income households live in multifamily housing
- Much of this housing stock suffers from deferred maintenance and high p.s.f utility costs
- Of the 90,000 HUD-assisted in CA, less than 1% have benefitted from energy efficiency programs

Source: California Housing Partnership Corporation, Green Rental Home Energy Efficiency Network

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# WHAT'S THE OPPORTUNITY?

In San Francisco, there are over \$2 million in potential annual energy savings within affordable housing and community facilities with a NPV of \$14-\$18 million.

Source: Low Income Investment Fund *Energy Retrofit Demand and Sensitivity Analysis*

Nationwide, there are over \$2 billion in potential annual energy savings in HUD-assisted properties with a NPV of over \$8 billion.

Source: *Energy Innovation: New Foundations for Multifamily Energy Retrofits*.  
Wayne Waite, US Department of Housing and Urban Development

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# GREEN RETROFIT INITIATIVE

- Direct energy-efficiency programs and funding toward low-income rental housing to lower utility costs, preserve affordability, and reduce GHG emissions
- Attract private capital to energy efficiency improvements in low-income rental housing
- Develop audit protocols and program models that facilitate a whole-building approach and the leveraging of diverse resources

# FUNDING

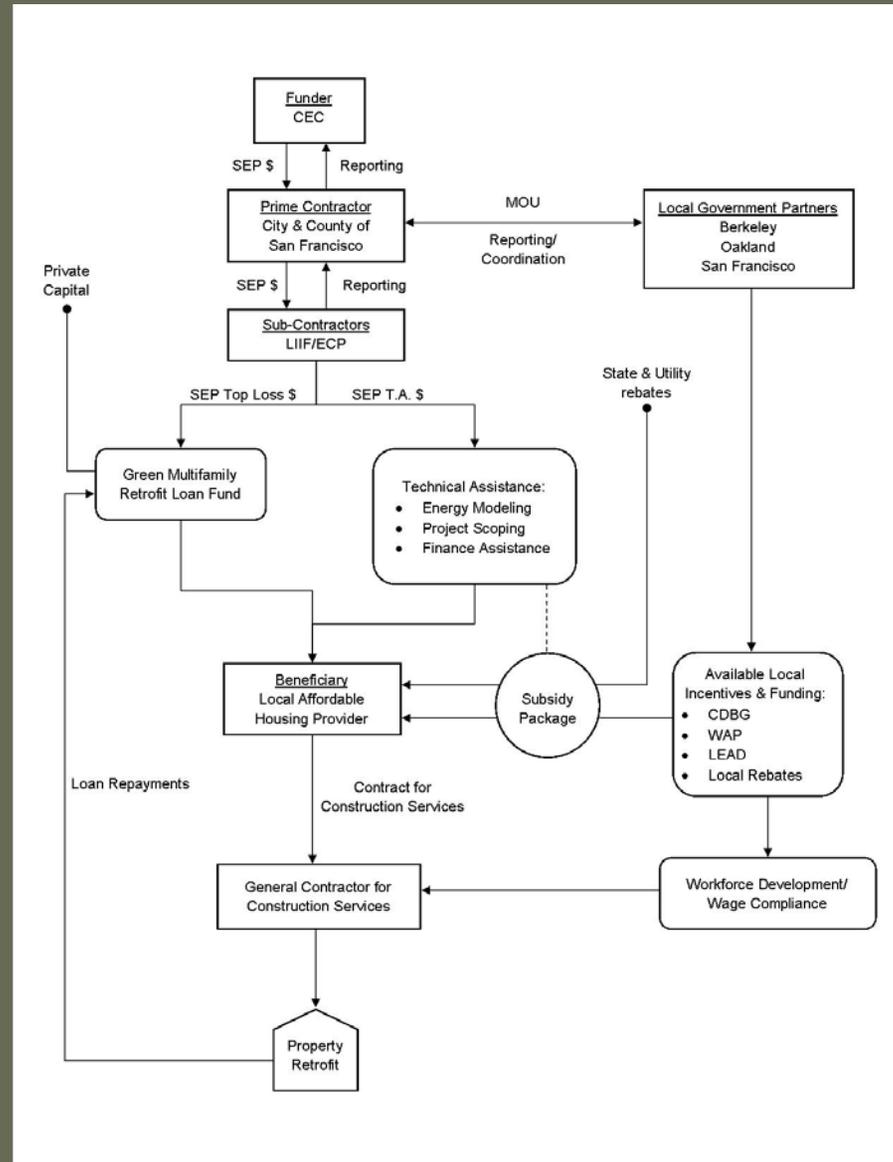
Weatherization Assistance Program (WAP) – ARRA  
\$2.65 million

State Energy Program (SEP)  
Comprehensive Residential Building Retrofit – ARRA  
\$2.93 million

Potential Leveraged Sources:  
EECBG, Utility Rebates, Lead Remediation, CDBG,  
property reserves

# BAY AREA MULTIFAMILY FUND

- Free energy audits and technical assistance
- Low interest loan: 10 year 5% interest paid through energy savings
- SEP-funded “top loss” component of loan fund serves to attract private capital to un-tested market
- \$4 million loan fund with \$2 million in private capital already secured



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Measures	Total	WAP	SEP	CDBG	EECBG	Res
Energy/Water Measures	384,196	162,276	108,096	67,807	46,017	
Complementary (roof)	127,875		40,000	87,875		
Other (i.e. flooring)	38,192					38,192
<b>TOTALS</b>	<b>550,263</b>	<b>162,276</b>	<b>148,096</b>	<b>155,682</b>	<b>46,017</b>	<b>38,192</b>

WAP = savings \* lifespan/investment = 1.0

SEP = savings/1.15 = PMT \* 10 years at 5% interest = PV or loan amt.

CDBG = WAP

EECBG = \$3/Therm saved on heat/water

# POTENTIAL MEASURES



Gas-fired boilers for steam heat

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Domestic hot water re-circulating pumps

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In-unit radiators

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Hydronic heat circulating pump

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Exterior lighting



Interior lighting





Toilets and sink fixtures

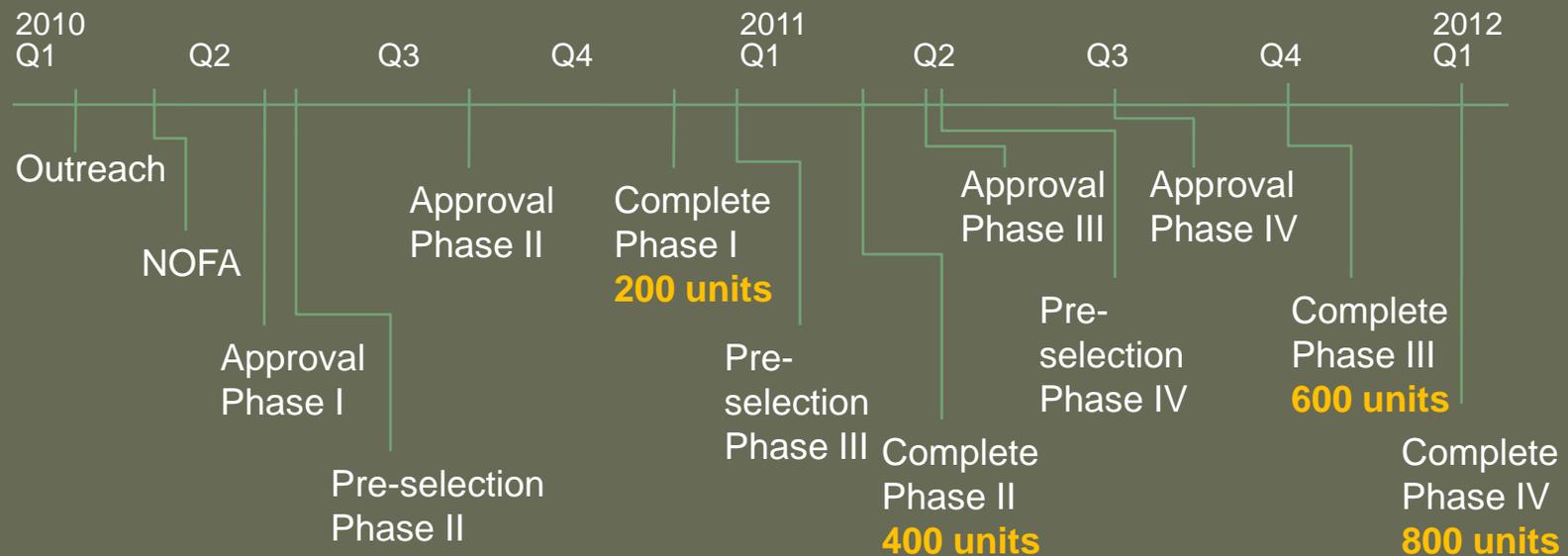


Windows



Complementary measures, i.e. roofing

# TIMELINE



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