



DESIGNED FOR
COMFORT
EFFICIENT AFFORDABLE HOUSING

**2005 RESNET Building Performance Conference
"Prospering In Changing Times"**

**Public Housing Authorities:
New Markets for Multifamily Rating Services**

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**February 28, 2005
San Antonio**



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**Energy Efficiency-Based Utility Allowance
Schedule and Incentive Program**

Designed for Comfort: **EFFICIENT AFFORDABLE HOUSING**

California Public Utilities Commission (CPUC) – funded program – or ratepayer funded

Statewide Program

Aimed at transforming the affordable housing market:

- Policy – for both new construction and rehabilitation of multifamily affordable projects
- Incentives – for rehabilitation of multifamily affordable projects

KEY:

Program relies heavily on HERS Raters and developing relationships between Housing Authorities/Owner-Developers and HERS Raters

Program Elements

- Public Housing Authorities (Policy)
- Owners Incentives for Rehab of Existing Projects
- Non-profit Voluntary Rehab Organization (single family homeowners)
- **Energy Consultants and Raters Incentives**
All program elements require HERS Rater

Public Housing Authorities (PHA)

This is the most important element of the program and will provide long-term benefits to owner-developers of affordable housing projects!

Policy element works to develop relationships between Housing Authorities and HERS Raters

Public Housing Authorities (PHA)

How affordable housing costs are set:

Based on income levels: Total housing costs are set at a % of income

Total housing costs = rent + utilities

How do they know what the utilities are?

Each Housing Authority sets a Standard Utility Allowance Schedule – considers consumption, price, and unit size

So, Rent to owner = Total Housing Costs – Utilities

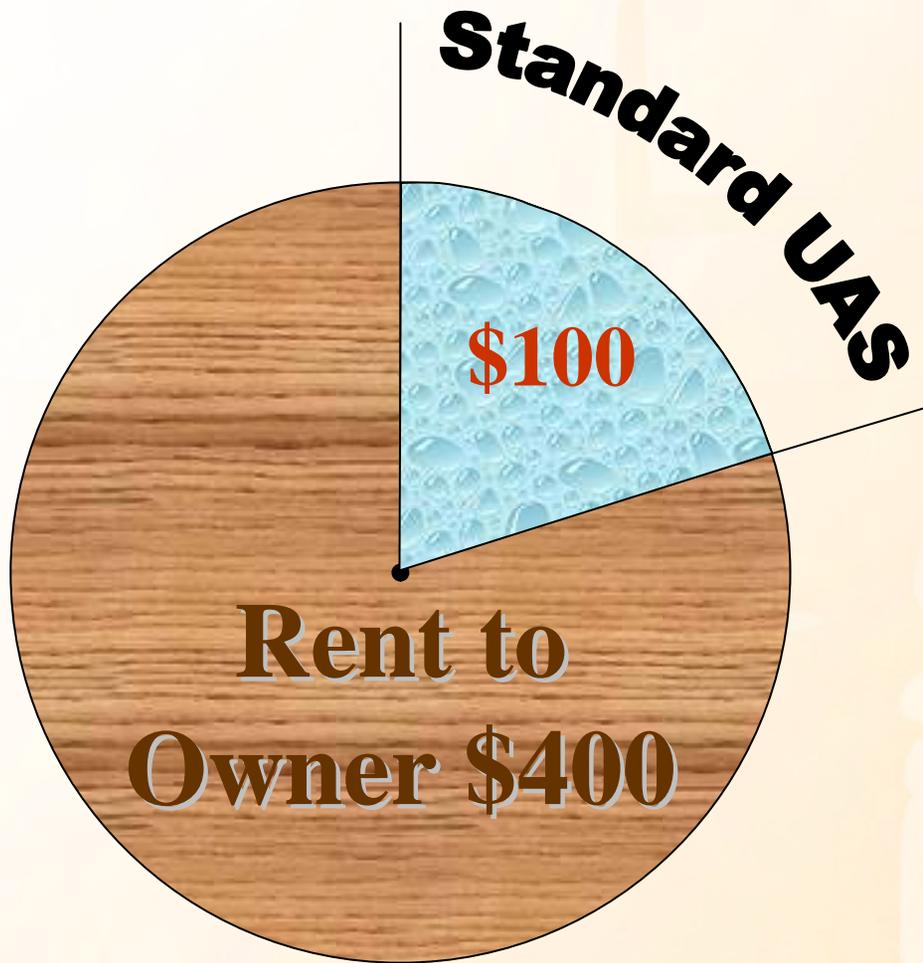
Example:

Housing Costs Set at \$500/unit based on income

Utility Costs Set at \$100/unit based on Standard Utility Allowance Schedule

Rent to Owner = \$500 - \$100 = \$400

Standard Utility Allowance Schedule



Example:

	Standard UA
Total Housing Burden	\$500/mo
Utility Allowance	\$100/mo
Developer Rent	\$400/mo
<i>Tenant Utility Costs</i>	<i>\$100/mo</i>

Public Housing Authorities (PHA)

Standard Utility Allowances are:

- Are established for affordable housing and subtracted from the total cost of housing amount a tenant pays
- Established based on formula/usage but does not consider energy efficiency

So, it makes sense that if a project is energy efficient, it should qualify for a lower utility allowance

Energy Efficiency-Based Utility Allowances:

- Lowers the amount of the utility allowance and shifts it back to the developer to pay back investment in energy efficiency

Public Housing Authorities (PHA)

Policy

- Working with Housing Authorities to adopt an Energy Efficiency-Based Utility Allowance schedule
- A lower utility allowance for HERS-verified energy savings

Energy Efficiency-Based Utility Allowance Schedule



Example:

Energy Efficiency-Based UA	
Total Housing Burden	\$500/mo
Utility Allowance	\$ 90/mo
Developer Rent	\$410/mo
<i>Tenant Utility Costs</i>	<i>\$ 88/mo</i>

Owner's rent increases \$10/mo and tenant's net utility costs decrease \$2/mo without changing total housing burden

Public Housing Authorities (PHA) Program Assistance

What does this have to do with HERS Raters?

- Housing Authorities rely on HERS Ratings to verify energy efficiency in order to grant the lower utility allowance – or Energy Efficiency-Based Utility Allowance
- Bringing the HERS verification process into the Housing Authorities

Leveraging Your Increased Cash Flow

Why would a developer be interested in this?

Every dollar of increased cash flow can be leveraged on a 1:7 ratio to finance other projects, programs, and tenant services

Increased Cash Flow From Energy Efficiency-Based Utility Allowance

Mortgage Amount	\$963,000				
Upgrade Cost	\$5,000				
Mortgage Rate	4.50%				
Standard Schedule					
Year	1	2	5	10	15
Rental Income	\$237,290	\$243,223	\$261,924	\$296,343	\$335,285
Other Income	\$4,800	\$4,920	\$5,298	\$5,995	\$6,782
Gross Income	\$242,090	\$248,143	\$267,222	\$302,338	\$342,067
Vacancy	\$12,105	\$12,407	\$13,361	\$15,117	\$17,103
Effective Gross Income	\$229,986	\$235,735	\$253,861	\$287,221	\$324,964
Operating Expense	\$105,000	\$107,625	\$115,900	\$131,131	\$148,362
Net Operating Income	\$124,986	\$128,110	\$137,961	\$156,090	\$176,602
Debt Service	\$89,669	\$89,669	\$89,669	\$89,669	\$89,669
Residual Cash	\$35,317	\$38,442	\$48,292	\$66,422	\$86,933
Cumulative Residual	\$35,317	\$73,759	\$208,624	\$503,578	\$896,208
Energy Efficient New Construction Schedule					
Year	1	2	5	10	15
Rental Income	\$241,833	\$247,879	\$266,938	\$302,016	\$341,704
Other Income	\$4,800	\$4,920	\$5,298	\$5,995	\$6,782
Gross Income	\$246,633	\$252,799	\$272,237	\$308,011	\$348,486
Vacancy	\$12,332	\$12,640	\$13,612	\$15,401	\$17,424
Effective Gross Income	\$234,301	\$240,159	\$258,625	\$292,610	\$331,062
Operating Expense	\$105,000	\$107,625	\$115,900	\$131,131	\$148,362
Net Operating Income	\$129,301	\$132,534	\$142,725	\$161,480	\$182,699
Debt Service	\$90,134	\$90,134	\$90,134	\$90,134	\$90,134
Residual Cash	\$39,167	\$42,400	\$52,590	\$71,346	\$92,565
Cumulative Residual	\$39,167	\$81,567	\$228,980	\$547,271	\$966,610
Yearly Difference	\$3,850	\$7,808	\$20,356	\$43,693	\$70,403

,986	\$235,735	\$253,861	\$287,221	\$324,964
,000	\$107,625	\$115,900	\$131,131	\$148,362
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317	\$38,442	\$48,292	\$66,422	\$86,933
317	\$73,759	\$208,624	\$503,578	\$896,208

Schedule

	2	5	10	15
,833	\$247,879	\$266,938	\$302,016	\$341,704
300	\$4,920	\$5,298	\$5,995	\$6,782
,633	\$252,799	\$272,237	\$308,011	\$348,486
332	\$12,640	\$13,612	\$15,401	\$17,424
,301	\$240,159	\$258,625	\$292,610	\$331,062
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167	\$42,400	\$52,590	\$71,346	\$92,565
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350	\$7,808	\$20,356	\$43,693	\$70,403

U.S. HUD Public Housing Energy Conservation Clearinghouse News “Best Practice”

“Housing Authority of the County of Riverside, California
Property owners and tenants alike are benefiting from an
Energy Efficiency-Based Utility Allowance schedule
developed by the Housing Authority of the County of
Riverside, California. The new allowance schedule
encourages multifamily owners to increase the energy
efficiency of their units. By doing so, owners can increase the
value and marketability of their properties while reducing
utility bills. And, taking lower subsidies into account, the
potential cost savings to a housing authority can be
substantial. There are advantages to residents, as well,
including lower energy costs and increased comfort.”

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For multifamily affordable housing projects:

Incentives –

- For Energy Efficiency Upgrades
- For Energy Analysis
- For 3rd Party Verification



Large Affordable Housing Owners

(9 or more units)

Financial Incentives

Qualifying multifamily retrofit projects that:

- Perform 20% better than existing design
- can qualify for owner-developer incentives of up to \$700* per dwelling unit
- Energy consultants (\$40/unit, up to \$5,000/project)
 - HERS raters (\$50/unit, up to \$6,000/project)

* Rebates amounts are “up to” the stated maximum and not to exceed applicable cost of installed measures

Small Affordable Housing Owners **(between 3 and 8 units)** **Financial Incentives**

Qualifying multifamily retrofit projects that:

- Perform 20% better than existing design; or
- can qualify for owner-developer incentives of up to \$1,500* per dwelling unit
- HERS raters (\$50/unit, up to \$6,000/project)

* Rebates amounts are “up to” the stated maximum and not to exceed applicable cost of installed measures

Affordable Housing Project Eligibility

- Existing residential building with three or more individually-metered dwelling units on residential rates
- Located in the jurisdiction of a public housing authority that has adopted, or is in the process of adopting or considering, an energy efficiency-based utility allowance schedule
- Have 10% of the units verified to be occupied by “income-qualified” tenants, during the time of qualifying for program

Affordable Housing Project Eligibility

- Be served by one of the four investor-owned utilities in California
- Achieve 20% energy efficiency improvement over the existing building condition (or 15% better than the 2001 Title 24 energy code, or meet the proposed 2005 Title 24 standards)
- Implement and install the qualifying measures in the project
- Hire a HERS rater (or Title 24 consultant) to inspect pre- and post upgrade installations and verify proper installation of energy efficiency measures

HERS Rater Incentives Example

Example: 100 unit project

Energy Consultant: $100 * 40 = \$4,000$

HERS Rater: $100 * 50 = \$5,000$

Total Incentives for both: $\$9,000$

In addition to negotiated price with owner-developer

Non-profit Voluntary Rehab Organization Benefits

- Incentives for income-qualified single family owners participating in a rehab program operated by a non-profit volunteer organization (Rebuilding Together – HFH)
- Rebates for energy efficiency HVAC and water heating equipment upgrade (up to \$2500 per address)
- Be served by one or two of the four investor-owned utilities in the State of California
- Equipment must be voluntarily installed an HVAC or licensed contractor
- Perform HERS inspections of installation for qualifying projects and provide final verification

Is this Duplicative in Other States?

- Nationwide, developers and national organizations have complained that Utility Allowances do not reflect energy efficient construction which is a disincentive for investing in energy efficiency
- This program has the attention of HUD who is working through the issue and one possible solution is that they are considering
 1. Rewriting the Utility Allowance Guidelines (national) to incorporate energy efficiency.
 2. Each state housing finance agency establish their own Energy Efficiency-Based Utility Allowance for each county
 3. State Housing Finance Agencies also administer Tax Credit Programs, many of which have an energy efficiency element in order to qualify for Tax Credit funding. **HERS Raters could play a role in verifying the energy efficiency of these projects.**

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