



SAN FRANCISCO HOUSING AUTHORITY

FINANCING ENERGY EFFICIENCY IMPROVEMENTS WITH ENERGY EFFICIENCY CONTRACTING ORGANIZATIONS (ESCOS)

Presented by: Barbara Smith, Development & Modernization Administrator
January 6, 2010

Energy Performance Contracting



- **Energy Performance Contracting (EPC) is a way to pay for needed public housing upgrades and renovations using utility savings. Savings typically pay for the project, with no upfront cost to the Public Housing Authority.**
- **HUD allows PHAs to finance and implement these capital improvements and services that conserve energy and increase the efficiency of gas, electricity and water usage through ESCOs.**
- **This financing technique uses utility cost savings for up to 20 years to repay funds borrowed to install cost-saving measures.**

SFHA Selects Ameresco, an ESCO, for a Utility Savings Program



- **SFHA has been spending over \$12.5 million a year for energy and water**
 - Preliminary estimates projected that an ESCO program could result in over \$3 M in annual savings on gas, electric, water and sewer costs with an ESCO program.
 - With an ESCO program, the annual savings would go primarily toward 20 year financing capital improvements, education and training.
- **Ameresco was selected following a Request For Proposals process in July 2008 to:**
 - Audit SFHA's energy and water consumption practices, identify savings measures, identify financing and implement the program, including compliance with SFHA's resident hiring (25% of the workforce hours) and MBE/WBE requirements.



Proposed Energy Savings Measures

- **Ameresco completed the Technical Energy Audit in March 2009**
 - The audit identified over \$124 M of potential energy related improvements and a \$27.5 M package of measures with the best economic payback approach while addressing priority utility-related capital needs at the developments identified by SFHA.
 - Water conservation improvements include: high efficiency toilets, low flow showerheads, faucet aerators, front-loading washers, and installation of showers where there are only tubs.
 - Electric and gas improvements include: common area lighting, apartment lighting, energy star refrigerators, vending machine controls, cogeneration systems, space heating boilers, apartment heating systems, domestic water heaters, ventilation system efficiencies, heating convectors and risers, attic insulation, double pane windows (2 sites) and energy management systems.



Proposed Financing Structure

- **The Energy Services Contracting project financing would be amortized by HUD incentives including the utility cost savings generated and guaranteed by the Energy Performance Contract with a 20 year financing.**
- **A tax-exempt municipal lease is proposed as the most common financing structure provided to HUD as part of the project approval process and the structure most often applied to performance contracts. This is a capital lease under which SFHA would own the installed equipment and the lessor or investor would retain a security interest or lien on the equipment until the capital lease is paid in full at the end of the lease term. Crews & Associates, one of the only firms providing 20 year financing for this type of program as it is currently structured by HUD, was selected as investment banker.**



Proposed Financing Structure

- **For this type of financing, an issuer credit rating is required to facilitate the sale of the bonds and has an impact on the interest rate and issuance costs. The rating will be essential as a key element in the decision of whether to utilize the tax-advantaged Build America Bonds, Tax-Free Certificates of Investment of conventional taxable debt.**
- **In June 2009, Crews completed a nearly identical \$21.1 M bond financing for the Bridgeport Housing Authority with an interest rate of 5.498% using conventional bonds. At this time, the projected interest rate for the SFHA transaction was 5.398%, although variables resulting from the Standard & Poors Rating and market fluctuations make it impossible to precisely determine the actual interest rate, required interest reserves, and transactional costs until the bonds or other financial instruments are actually offered and sold in the marketplace.**

Analysis of Financing Terms for Energy Services Agreements



Analysis of Financing Terms For Energy Services Agreements - 1/08 - 7/09

Authority	ESCO	UW/Bank	Closed	Amount	Rate	Term	Fees (COI)	COI %	UW Disc.
Pending HUD approval/final pricing									
SFHA Proposed	Ameresco	Crews		\$31,500,000	5.3981%	20	\$996,418	3.1632%	2.2500%
Minneapolis	Honeywell	rebid Grant/Crews Leading	not closed	\$30,000,000		20	\$1,104,000	3.6800%	2.0000%
Boston	Ameresco	Crews	not closed	\$55,000,000	TBD	20	\$896,125	1.6293%	1.2500%
Lynn	Ameresco	Crews	not closed	\$6,284,009	TBD	20	TBD	TBD	TBD
Tax-Exempt Leases									
Murfreesboro	Honeywell	Crews	3/31/09	\$2,385,000	6.3200%	20	\$100,907	4.2309%	2.5441%
Bridgeport	Siemens	Crews	6/23/09	\$21,100,000	5.4899%	20	\$679,355	3.2197%	1.9526%
San Bernadino	NORESCO	Grant Capital	mid-2008	\$16,000,000		20			

- A savings with a net present value TODAY of \$1,709,014 would result from a 50 basis point reduction in the interest rate for a \$31,500,000 as a result of aggressive marketing by the Investment banker.
- The 6 ESAs ranged in size from \$2 million to \$55 million with COI that ranged from 1.6% to 4.2%
- As the term of an ESA increases both the COI and interest rate.
- Newer transactions have a higher COI and as transactions decreased in size, COI as a percentage increased significantly.
- The COI for SFHA should be at, or just below 3.00% (The new requirement for annual credit rating updates added .6% to the COI).
- It was impossible to locate any banks doing 20 year ESA transactions during the last 3 years.
- Grant Capital is a broker who is using Crews as a funding source in Minneapolis.
- The final terms of the San Bernadino transaction will be available late on today and will be added to this table.

7/23/09

Other SFHA Considerations of Financing Terms



- **Between January 2008 and July 2009, there have been six 20 year Energy Services Contracting financings.**
 - The six ESAs ranged in size from \$2 M to \$55 M with relatively high costs of issuance (COI) that ranged from 1.6% to 4.2%.
 - Newer transactions have a higher COI
 - As transactions decreased in size, the COI as a percentage increased.
 - Aggressive marketing by an investment banker can result in a 50 basis point reduction in the interest rate for a \$31.5 M financing, a net present value savings of \$1.7 M, although fees tend to high at around 2%.
- **During the past 24 months, no investment banks other than Crews & Associates, have been doing 20 year public housing energy services transactions.**
- **The Commitment from Crews & Associates in July 2009 enabled SFHA to successfully compete for \$15.5 M in HUD Capital Fund Recovery Competitive grants by receiving high scores for leverage of private dollars through Energy Services Contracting.**



What Can Be Improved to Provide PHAs with More Financing Options

- The Quality Housing Work Responsibility Act of 1998 (QHWRA) empowers PHAs to borrow private funds by allowing the use of operating funds to secure debt for development or renovation, however, HUD has been recalcitrant to implement this financing.
- The revenue stream for repayment Energy Services Contracting now comes through PHAs from HUD utility operating incentives as part of the PHA's annual operating budget.
- Unlike Capital Fund Financings, for which the repayment revenue can be diverted directly from HUD to a lender and is a fixed amount, the repayment stream from for EPC projects is dependent on annually verified savings resulting directly from lower operating expenses on utilities. HUD has resisted allowing operating funds to be diverted, due to the Annual Contributions Contract structure between HUD and PHAs, from HUD directly to a lender. As a result, the “risk profile” for these types of financings is very different to an investor.



How Improvements Might Work

- HUD could allow amendments to the ACC similar to Capital Fund Financing.
- With a depository agreement and bond trustee agreement in place, the bank could receive the Operating Subsidy from HUD and ensure that the EPC debt service is paid first with the remainder going to the PHA.
- The credit risk would then shift from the PHA to the HUD Operating Subsidy.
- By disengaging the credit risk of the bonds from the PHA, the interest rate benefit would be substantial. AA rating would most likely yield a 1 point reduction in the interest rate.
- Most PHAs use a combination of incentives and while this structure could be easily adapted to frozen rolling base incentives, it would be more complicated to apply to the add on subsidy incentives.