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**Energy Performance
Contracting for
Public and Indian Housing**

A Guide for Participants

Prepared for

The DOE-HUD Initiative
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U.S. Department of Housing and Urban Development

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The DOE-HUD Initiative on Energy Efficiency for Housing was created in 1990 as a collaborative framework to harness the technical skills of DOE's laboratories and programs for making energy efficiency improvements in Federally-aided housing. This multi-year Initiative supports both the Department of Energy's National Energy Strategy and the Department of Housing and Urban Development's mission to make low- and moderate-income housing more affordable.

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PREFACE

Energy Performance Contracting is an innovative financing technique that uses cost savings from reduced energy consumption to repay the cost of installing energy conservation measures. Normally offered by Energy Service Companies (ESCOs), this innovative financing technique allows the capture of benefits from energy savings without up front capital expenses on the part of the building owners, since the costs of the energy improvements are borne by the performance contractor and paid back out of the energy savings. Other advantages include the ability to use a single contractor to do necessary energy audits and retrofit and to guarantee the energy savings from a selected series of conservation measures.

This Guidebook was developed to explore and clarify the use of energy performance contracting by Public Housing Agencies and Indian Housing Authorities (PHAs and IHAs). It defines how performance contracting may be done in accordance with regulations governing HUD's Performance Funding System for Public and Indian Housing. The Guidebook specifically provides:

- Information about the new incentives offered to PHAs/IHAs to undertake energy performance contracting, where other than HUD funds¹ are utilized to do energy retrofits and the payback is made through the energy savings.
- Guidance and technical assistance to PHAs/IHAs, HUD Field Staff, potential performance contractors and others wishing to utilize the *new incentives* provided by the Housing and Community Development Act of 1987 and related HUD Regulations.
- Guidance and information on documentation and other requirements for contracting with providers and obtaining HUD approval.

Designed for PHAs/IHAs that have little or no experience with performance contracts, the Guidebook begins with an explanation of energy conservation incentives available in HUD's Performance Funding System. It continues with a general description of performance contracts, HUD procurement requirements, and step-by-step guidance for contractor selection, negotiation and monitoring.

¹ Note that Community Development Block Grant funds may be used by recipient localities for this purpose.

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CHAPTER 1. INTRODUCTION

1.1 Background

For a number of years, the Department of Housing and Urban Development (HUD) has provided mechanisms to encourage energy conservation in the Public Housing Program. In 1975, HUD implemented the Performance Funding System (PFS), which determines, in conjunction with PHA/IHA operating budgets, the level of operating subsidy funding provided annually. Within the system is incorporated an incentive to provide a monetary encouragement to Public Housing Agencies (PHAs) and Indian Housing Authorities (IHAs) to reduce energy consumption. The Allowable Utilities Expense Level (AUEL) is calculated as a separate component of operating subsidy eligibility under the PFS and is estimated at the beginning of each PHA/IHA fiscal year. After completion of each PHA/IHA fiscal year when actual consumption is known, PHAs and IHAs are permitted under the PFS to retain for their own use fifty percent of any cost savings due to decreased utility consumption after adjustments for climatic conditions on space heating utilities and utility rates. The amount of the savings is based on the use of a three-year rolling base of actual consumption.

HUD also makes available to PHAs/IHAs on an application basis modernization funding, at no interest, to pay for the rehabilitation, reconstruction and improvement of PHA/IHA developments under the Comprehensive Improvement Assistance Program (CIAP). Between 1982 and 1986, HUD provided over \$756 million for energy improvements to PHAs/IHAs under the CIAP. Despite these incentives, utility consumption (including water) for public and Indian housing units continues to be substantially higher than for privately owned apartment buildings.

Studies conducted by HUD have shown that the need for rehabilitation, both energy and non-energy related, far exceeds the amount of funding that is available and has been made available under the CIAP or from other PHA/IHA funding sources, such as operating reserves, to bring about the cost-effective energy conservation improvements that are imperative to reduce overall utility consumption levels and to improve comfort and reliability. Both HUD and PHAs/IHAs, therefore, must look to other means to finance these improvements.

During the 1980s, innovative financing techniques for installing cost-effective energy conservation measures in buildings and facilities were developed by a new type of business called energy service companies (ESCOs). These financing techniques, frequently called performance contracts or energy service contracts, used the energy cost savings from reduced consumption to pay for the installation of energy conservation measures. The advantage of using an ESCO was to acquire improvements in housing units and heating systems using a single contractor to design, install, maintain, and guarantee the energy savings for energy conservation measures selected.

Section 118(a) of the Housing and Community Development (HCD) Act of 1987 was enacted, in part, to institutionalize the necessary adjustments to the PFS to take advantage of innovative financing techniques such as performance contracting which are not dependent on additional federal funding. Changes to the PFS regulations in 24 CFR 990 that implement the provisions of Section 118(a) were published as a Final Rule on September 11, 1991, and are included as Appendix A. (Note: It is neither mandatory nor implied that the use of a performance contract is the only method to accomplish the objectives of the HCD Act even though this guidebook focuses on that approach. It is strongly recommended that PHAs and IHAs consult with their HUD Field Offices to discuss other alternatives for funding energy conservation improvements.)

The Department of Energy has sponsored performance contract projects in publicly-owned buildings, several of which resulted in signed agreements. In addition, a number of PHAs have been granted waivers of the PFS regulations in order to implement various non-federally financed energy improvements by: (1) allowing the

freezing of the three year rolling base utility consumption at the level in existence prior to the improvement and retention by the PHA/IHA of 100% of the cost savings or (2) permitting specific “add-on” funding equal to the amortized cost of the energy improvement during the waiver period, if projected savings were sufficient to pay for the financing required. These two types of waivers formed the basis for the provisions of Section 118(a) of the HCD Act of 1987, as implemented by the September 11, 1991, revisions to the PFS.

1.2 Purpose and Content

This guidebook has been developed for the general purpose of exploring and clarifying the use of innovative financing approaches such as performance contracting and their relationship to the revised regulatory requirements of the PFS. The specific purposes of this Guidebook are:

- a. to provide guidance and technical assistance to PHAs/IHAs in using performance contracts to install energy conservation measures under the new incentives provided by the 1987 HCD Act;
- b. to provide information to HUD field and regional offices on contracting procedures for PHAs and IHAs using performance contracts for energy conservation projects; and
- c. to provide information to PHAs/IHAs and HUD field and regional offices on the required documentation and evaluation requirements for PHA/IHA proposals to HUD.

In addition, the energy rate reduction method for reducing utility costs contained in the 1987 HCD Act is discussed briefly.

It should be noted that water and sewer costs are considered to be utilities under the PFS. HUD is very much interested in water conservation and the provisions of this guidebook are appropriate, in general, for use in implementing water conservation projects.

The Guidebook covers the following topics:

- a. Chapter 2 presents a brief overview of the energy conservation incentives in the 1987 Act and shows how the 1987 energy incentives are implemented with the PFS and a comparison with the incentive prior to 1987.
- b. Chapter 3 gives a description of performance contracts and how they relate to the 1987 HUD energy conservation incentives.
- c. Chapter 4 describes energy conservation measures that are of interest for performance contracting in PHAs and IHAs.
- d. Chapter 5 presents steps suggested for planning a performance contracting project.
- e. Chapter 6 contains HUD procurement, application procedures, and approval requirements to implement a performance contract through freezing the rolling base or to obtain an additional operating subsidy under the PFS requirements.
- f. Chapter 7 discusses the steps in selecting a contractor using a Request for Proposal (RFP) approach to satisfy competitive procurement requirements.
- g. Chapter 8 presents suggested steps in negotiating a performance contract.
- h. Chapter 9 discusses several areas for monitoring an actual project.

This Guidebook is intended for PHAs and IHAs with little or no prior experience with performance contracts. Agencies that have had some experience in this activity may find certain parts of the Guidebook helpful in adding to the effectiveness of using performance contracts.

CHAPTER 2. THE PERFORMANCE FUNDING SYSTEM AND 1987 ENERGY INCENTIVES

Section 118(a) of the Housing and Community Development (HCD) Act of 1987 contained two new incentives to encourage PHAs/IHAs to implement energy conservation improvements that reduce utility consumption using non-federal sources of funding and one incentive dealing with purchase arrangements that reduce the cost of energy consumed. The energy conservation incentives of the 1987 HCD Act are implemented through applicable sections of the revised PFS regulations at 24 CFR 990 (see Appendix A).

a. Consumption Reduction Incentives

The first incentive is freezing the three year rolling base utility consumption at the level of consumption before installation of the energy improvement and permitting the PHA/IHA to retain 100% of the cost savings during the contract period. This incentive permits PHAs/IHAs to retain cost savings normally returned to HUD from reduced utility consumption to pay for the capital and related costs of energy improvements.

The second incentive allows obligation of an additional operating subsidy eligibility as an “add-on” to pay for the amortization cost of energy improvements financed through a loan.

HUD approval of either of the two incentives is based upon a determination that (1) payments under the contract can be funded from the reasonably anticipated energy cost savings and (2) the contract period does not exceed 12 years.

b. Rate Reduction Incentive

The energy rate savings incentive permits PHAs/IHAs to share equally with HUD the first year’s savings that stem from the use of an alternative purchasing arrangement that results in lower utility costs, e.g., purchasing natural gas directly from the “well-head.”

2.1 Performance Funding System

The Performance Funding System (PFS) is the method used by PHAs/IHAs to determine their annual operating subsidy eligibility for the next fiscal year. Current PFS procedures and requirements are described in 24 CFR Part 990, as revised by the Final Rule¹, and in HUD Handbook 7475.13 REV².

The calculation of subsidy eligibility under the PFS considers three types of costs—an Allowable Expense Level for non-utility expenses, an Allowable Utilities Expense Level (AUEL) for utility expenses, and other costs. Only the AUEL costs are discussed here because it is the only type of cost affected by the 1987 HCD Act energy incentives.

2.1.1 Allowable Utilities Expense Level (AUEL)

The AUEL is estimated at the beginning of a PHA/IHA fiscal year based on a three-year average consumption level and the current utility rates. After the end of the fiscal year, an adjustment is required to: (1) reflect actual utility rates during the year; (2) adjust space heating utility consumption for the actual heating degree days (HDDs); and (3) provide for a 50/50 sharing of additional costs or savings between the PHA/IHA and HUD from changes in estimated consumption levels.

2.1.2 Rolling Base Period

The 36-month period used to calculate the average consumption level is called the “rolling base period.” This period begins 48 months before the beginning date of the Requested Budget Year (RBY) and ends 12 months before the beginning date of the RBY. For example, if the RBY began on 10/01/90, the Rolling Base Period would be from 10/01/86 to 09/30/89.

2.1.3 Rates

Current published utility rates, including any rate adjustments or pass-throughs, must be used for each utility to calculate the AUEL for the RBY.

After the end of each PHA/IHA fiscal year, the operating subsidy is adjusted for the actual rates vs. the rates assumed in calculating the AUEL. Thus, rate increases result in a dollar for dollar positive year-end adjustment in the operating subsidy, while rate decreases result in a dollar for dollar negative adjustment. In Federal Fiscal Years in which appropriations are inadequate to fund at 100% of PFS eligibility, subsidies are pro-rated.

2.1.4 Heating Degree Day (HDD) Change Factor

The HDD change factor, supplied by HUD, is used to make a year-end adjustment in the estimated consumption level in the AUEL. The intent of this change factor is to adjust the estimated average consumption level to what it would have been if the weather during the three-year rolling base period had been the same as for the budget year being adjusted. This factor is applied only to utilities used for space heating (fuel oil, natural gas, coal or electricity) even if some metered energy is used for other than space heating such as heating domestic hot water.

2.2 Pre-1987 Energy Conservation Incentive

The energy conservation incentive relating to consumption in the PFS regulations before implementation of the 1987 HCD Act permits a PHA/IHA to retain half of any decrease in the utility expense level from decreased consumption compared with the consumption estimated from the three-year rolling base. (Note: The new incentives do not replace this incentive; it remains in effect unless the PHA/IHA has HUD approval for one of the two new incentives.) The decreased utility expense level used for this energy incentive is after adjustments for utility rate changes and weather, through the heating degree day adjustment, are made on the utility consumption used for space heating.

Under the three-year rolling base, utility cost savings from energy conservation are phased out over a four-year period. A PHA/IHA retains half of the cost savings in the first and second years after the conservation improvements are completed, one-third of the savings in the third year, and one-sixth of the savings in the fourth year. Therefore, the PHA/IHA retains 150% of the value of the first year’s cost savings over a four-year period.

A simple illustration of the total utility cost savings under the pre-1987 incentive is presented in Figure 2.1. In this illustration, annual utility costs of \$1,000,000 are assumed to decrease by 20%, or \$200,000/year. Thus, in

the first year, utility costs decrease to \$800,000/year from \$1,000,000/year and remain at that level. Total annual cost savings are \$200,000/year in the first and second years, then decrease to \$133,333 in the third year, \$66,667 in the fourth year, and zero in the fifth year and later years as a result of incorporation of the reduced consumption into the three-year rolling base. Of the \$600,000 cumulative cost savings, \$300,000 is retained by the PHA/IHA by the fourth year based on a 50/50 split of the savings with HUD. The remaining \$300,000 of total savings is returned to HUD under the pre-1987 incentive.

2.3 1987 Energy Consumption Reduction Incentives

The purposes of this section are: (a) to describe the energy consumption conservation incentives that were initiated with the HCD Act of 1987, Section 118, and (b) to give examples of how the new incentives work in relation to the PFS. Cumulative savings for the 1987 incentives are compared with the pre-1987 energy incentive assuming constant utility costs and the same 20% reduction in annual utility costs as was assumed for the pre-1987 energy incentive example in Sec. 2.2. A seven-year contract period, which is typical for a performance contract, is assumed for these examples.

2.3.1 Freezing the Rolling Base

The first 1987 incentive is “freezing the rolling base” during a performance contract. This incentive applies if payments by the PHA/IHA to an ESCO or third party financier are dependent on the amount of energy cost savings realized.

Upon HUD approval, a PHA/IHA may: (1) freeze the utility consumption at the average level for the three years before implementing energy conservation improvements, and (2) retain all the utility cost savings realized during the period of the performance contract or other financing agreements to apply to ESCO payments and other PHA/IHA expenses. This new incentive gives the PHA/IHA additional funds to use for energy conservation improvements compared with the pre-1987 energy conservation incentive.

The revised PFS regulations on energy incentives specify that cost savings be applied in the following order: (1) at least 50% for debt service payments and payments to the contractor; (2) reimbursement of direct costs of the PHA/IHA, which may include staff training and activities to promote resident cooperation and any other eligible costs; and (3) prepayment of the PHA/IHA’s obligation under the contract. The regulation will not permit the approval of any contract that does not allow prepayment.

The annual savings generated for a seven-year freezing of the rolling base are shown in Figure 2.2. For the seven years of the contract, the \$1,000,000/year utility subsidy would continue, generating savings to the PHA/IHA of \$200,000/year. In the eighth year, the rolling base would be reinstated using the last two years before the contract and the last contract year, resulting in an AUEL of \$933,333 and a total savings of \$133,333 of which \$66,667 would be retained by the PHA/IHA. In the ninth year, the rolling base uses one year before the contract and two years after the contract, resulting in an AUEL of \$866,667 and a savings to the PHA/IHA of \$33,333. In the tenth year, the utility subsidy is based on the three years after the contract giving an AUEL of \$800,000, and no additional savings are retained by the PHA/IHA. The total savings accumulated over a ten year period are \$1,600,000, of which 50%, or \$800,000, would be used for debt service and payments to the contractor.

The maximum cumulative savings retained by the PHA/IHA, based on 25% of the total savings, amount to \$400,000 by the ninth year as shown in Figure 2.3. For this example, the 1987 incentive increases the savings retained by the PHA/IHA from \$300,000 to \$400,000 compared to the pre-1987 incentive.

2.3.2 Additional Operating Subsidy

Under this incentive, a PHA/IHA can request an additional subsidy as an “add-on” to its total operating subsidy eligibility. This additional subsidy would be applied to amortizing payments for a loan contracted to finance energy conservation improvements with a repayment period not to exceed twelve years. After obtaining the necessary HUD approvals, the PHA/IHA could use conventional financing or other financing agreements with utilities or local government sources for repayment of the capital costs associated with this incentive.

This incentive applies if the contract sets forth a fixed payment (e.g., a bank loan) supported through additional subsidy, i.e., the payment is not directly dependent on the amount of cost savings resulting from the energy conservation improvements. Under this incentive, the three-year rolling base remains in place, and the normal reductions in savings occur over a four-year period, the same as for the pre-1987 incentive.

The amount of the additional subsidy would be a set amount determined by the amount and term of the loan repayment, but could not exceed the cost savings generated. Savings must be greater in each year than the amount of the “add-on”; if not, the deficiency is offset against the PHA/IHA’s subsequent year subsidy eligibility. The amount saved is the difference between the actual energy cost and the energy cost expected if the conservation improvement had not been made. The expected energy cost for each year would be adjusted by the ratio (actual Heating Degree Days)/(Heating Degree Days expected).

For the example in Section 2.3.1 of assumed annual utility cost savings of \$200,000, the PHA/IHA’s total retained savings amount to \$300,000 by the fourth year of the contract.

2.4 Energy Rate Reduction Incentive

This new incentive permits a PHA/IHA to share equally with HUD cost savings resulting from action (e.g., well-head purchase of natural gas, administrative appeals or legal action) taken by the PHA/IHA to reduce the rate it pays for utilities. Upon HUD approval, the PHA/IHA may retain half the first year’s savings.

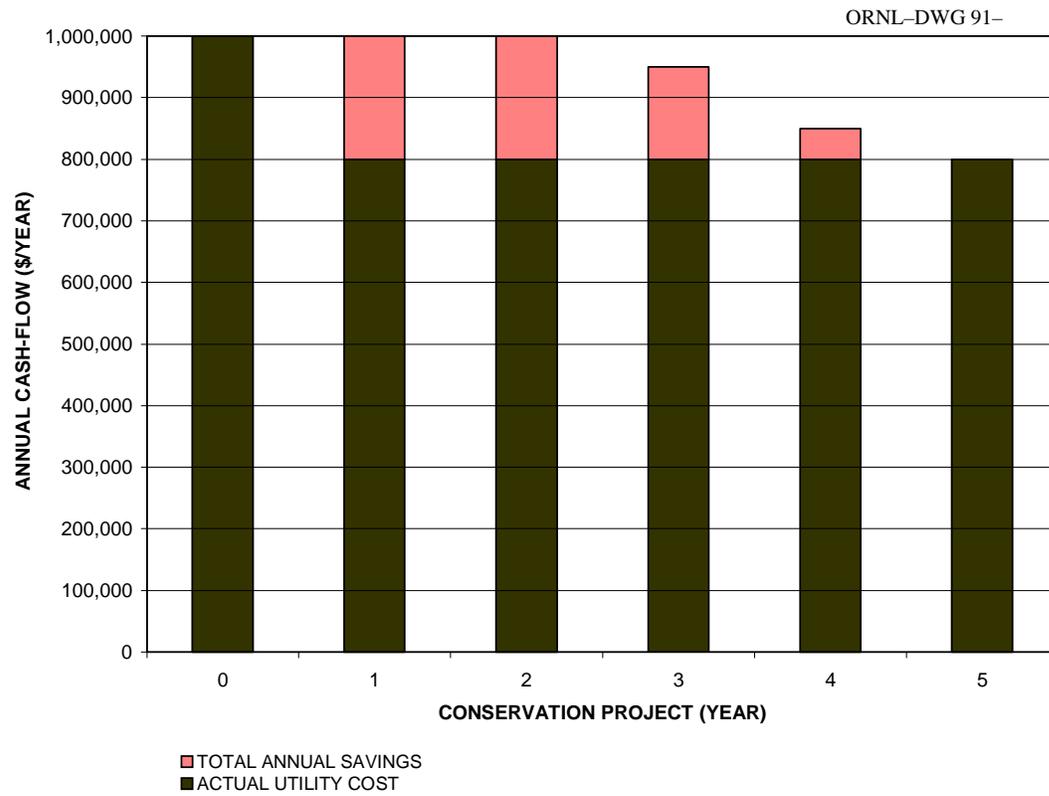


Fig. 2.1. Annual cash flow for a \$200,000/year utility cost savings with the pre-1987 conservation incentive.

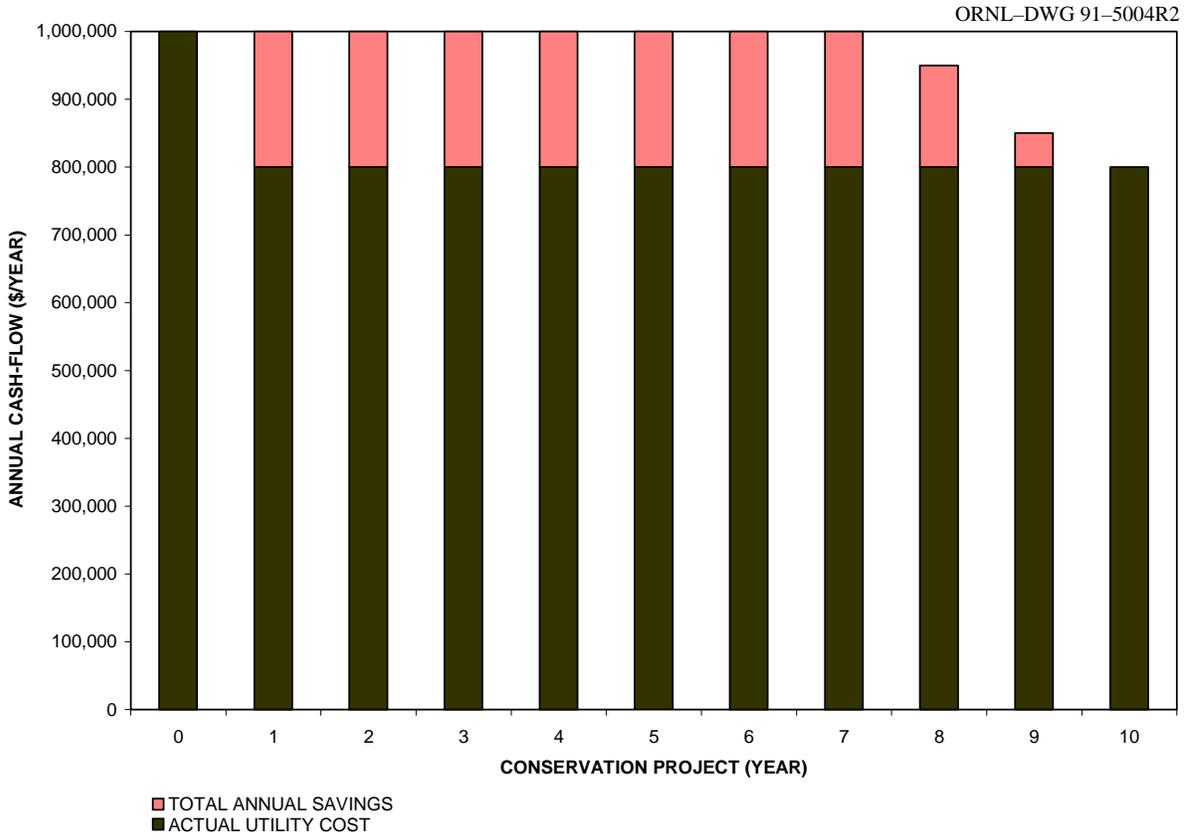


Fig. 2.2. Annual cash flow for a 7-year freezing of the rolling base and \$200,000/year cost savings (first 1987 conservation incentive).

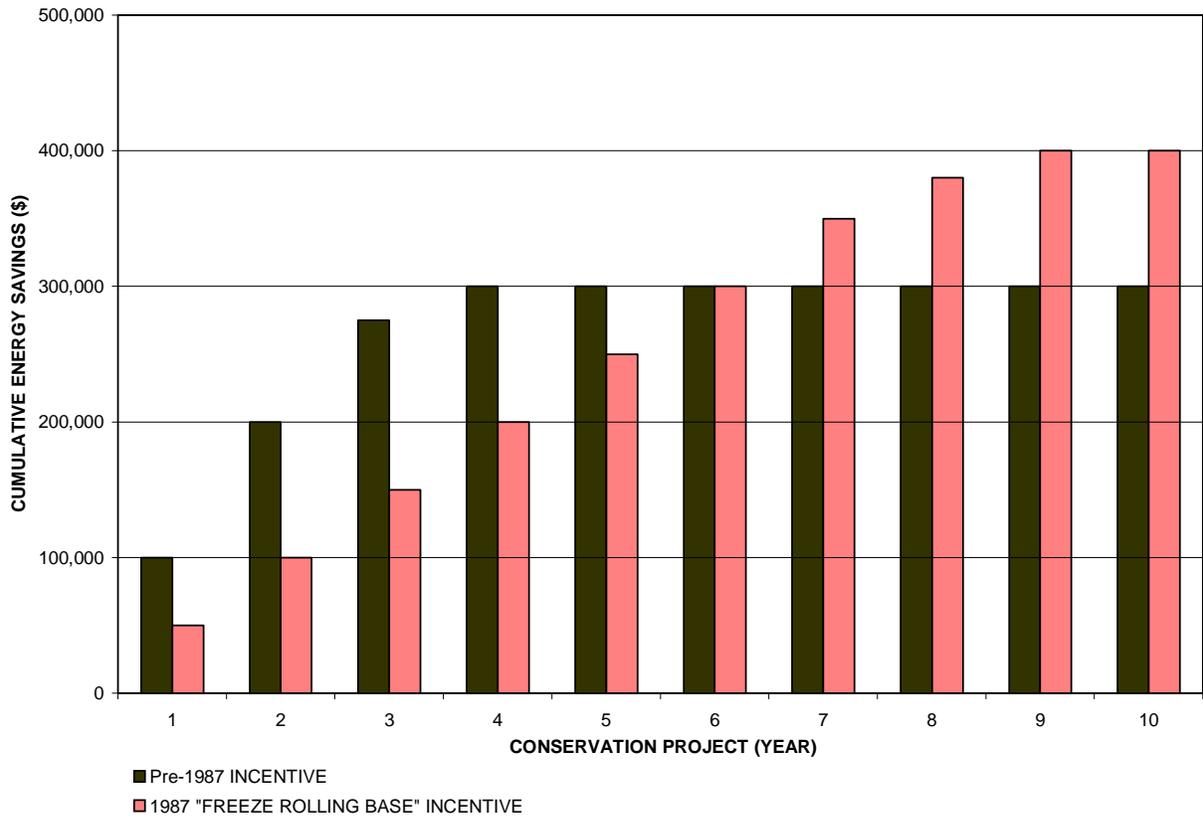


Fig. 2.3. Comparison of cumulative cost savings retained by a PHA for the pre-1987 and 1987 conservation incentives assuming \$200,000/year total cost savings, a 7-year contract period, and 25% of total cost savings retained by a PHA for the 1987 incentive.

CHAPTER 3. PERFORMANCE CONTRACTS FOR PHAs and IHAs

This chapter covers the basic features of performance contracts, gives general guidance on how performance contracts may be used by PHAs/IHAs to expedite the “freezing of the rolling base” incentive of the 1987 HUD HCD Act, and provides guidance on procurement methods that may be appropriate for performance contracts according to the common rule at 24 CFR Part 85, Uniform Administrative Requirements for Grant and Cooperative Agreements with State and Local Governments.

3.1 Types of Performance Contracts

The term “performance contract” is used, in this context, to apply to any retrofit project where the payment for new heating equipment, utility services, or energy-related building improvements depends on the energy savings performance of such improvements. The “performance,” with regard to utility consumption, is guaranteed by an Energy Service Company (ESCO) or contractor to be sufficiently better than the existing equipment or building condition so that the total cost to the PHA/IHA will be no higher than if no improvements had been made, and ultimately total costs will be reduced. Therefore, energy cost savings achieved by the retrofit project over the contract term must be sufficient to cover all project costs including debt service and contractor fees for design, maintenance, monitoring, and profit. For PHAs/IHAs, it is important that the performance is guaranteed for the contract period during which the PHA/IHA makes payments to the contractor, as no additional funds will be available under the PFS to meet the payments agreed to under the contract.

There are several combinations of savings guarantees, financing, and equipment ownership that can be used in performance contracts. The type of performance contract most appropriate for PHAs/IHAs is called an energy services agreement. Other types of performance contracts include equipment leasing and energy service contracts, neither of which are appropriate for PHAs/IHAs.

3.1.1 Guarantee Options

There are two types of guarantees usually offered in energy service agreements, both of which depend on the determination of monthly energy savings between the energy that would have been used without the energy improvements and the actual energy used. Various options also exist for accumulating positive and negative energy savings over time relative to the guaranteed level of savings.

a. Guaranteed minimum energy savings

In this agreement, the ESCO guarantees a minimum energy savings to the client that is adequate to cover the debt service and the ESCO’s fee. Any excess energy savings can be negotiated with the ESCO in the contract: (1) excess savings are split between the ESCO and the client on a percentage basis, which gives the ESCO an incentive to achieve greater savings; or (2) all excess savings flow to the client. If energy savings are inadequate to cover the debt service, the ESCO reimburses the client to cover the debt service payments.

b. Guaranteed debt service

In this agreement, the ESCO guarantees that the debt service is covered by energy savings. The ESCO's fee is paid from the excess energy savings on either a fixed or percentage basis determined in negotiations with the PHA/IHA. As above, the ESCO reimburses the client to cover debt service payments if inadequate energy savings occur.

Additional types of savings guarantees or variations of those discussed above may be developed and offered to PHAs/IHAs by ESCOs since the ESCO industry is still changing and responding to competition.

3.1.2 Ownership Options

The ownership option most appropriate for a PHA/IHA is when it assumes ownership of the energy improvements once they are installed by the contractor. Financing for the project could be provided either by the PHA/IHA or the contractor. If the PHA/IHA provides the financing, it would make conventional payments to its lending institution over the life of the loan. This option can reduce the cost of the energy conservation measures to the PHA/IHA if it can obtain financing at a lower rate of interest than that offered by the contractor. If the contractor provides the financing, payments to the contractor would include a repayment of the loan over the period of the performance contract. In either case, no additional payment for the energy conservation measures at the end of the contract would be necessary.

Another option for equipment ownership is when the contractor (ESCO) finances, installs and retains ownership of the energy conservation measures. At the end of the contract, the PHA/IHA can purchase the measures for a price negotiated with the contractor. PHAs/IHAs must be very wary in such arrangements so that there will be a source of funding available to purchase the equipment.

3.1.3 Types of Financing

As indicated above, the cost of financing should be reduced if obtained by the PHA/IHA rather than an ESCO. Among the types of financing available to PHAs/IHAs are:

- a. tax-exempt bonds;
- b. tax-exempt lease-purchase agreements;
- c. utility low-interest rate loans;
- d. loans from conventional lending institutions (i.e., banks);
- e. loans from state and local government agencies, including those agencies' funds or HUD Community Development Block Grants available to them.

Tax-exempt bonds, including general obligation or revenue bonds, are traditional sources of low-interest financing for municipal agencies. Tax-exempt lease-purchase agreements are a standard practice source of financing, but require a state or local government sponsor. Tax-exempt financing would be the most desirable type of financing for PHAs/IHAs because of the lower interest rates available. The availability and cost of financing, however, will depend on the credit-worthiness of the PHA/IHA or the municipality it serves and the nature of financial risk in the particular performance contract negotiated with an ESCO. Such risks would be minimized by a guarantee to cover debt service payments included in most performance contracts.

Electric and natural gas utilities can be a source of funds, e.g., low-interest loans, for projects that reduce utility demands.

Financial authorities of local municipalities should be consulted for advice on preferred financing options for specific PHAs/IHAs.

3.2 Advantages of Performance Contracts

Performance contracts have several features that can be attractive to PHAs and IHAs for reducing utility costs for their housing units. (Reduced utility costs from performance contracts have special benefits for PHAs and IHAs with units subsidized under the PFS as amended by Section 118(a) of the 1987 HCD Act.)

The primary benefit of using a performance contract to install energy conservation measures in residential buildings is that all the required services can be obtained from a single source or contractor, if desired. Such services include:

- a. a detailed building energy audit and improvement plan;
- b. centralized contractor services including design, procurement, installation, staff training, and maintenance; and
- c. financing of the project, if desired.

Additional benefits of using a performance contract are:

- a. guaranteed energy savings to finance project costs;
- b. the cost of financing the project may be lower than with a conventional project because of the guaranteed savings feature;
- c. close coordination between design and construction phases accelerates project schedules;
- d. monitoring of project energy use provides immediate evaluation of equipment performance and maintenance of energy savings.

3.3 Appropriateness of Performance Contracts

There are several features about using performance contracts to make improvements in energy conservation for PHAs/IHAs that should be realized before considering using this method. These features are listed briefly below and discussed in more detail in the rest of this Guidebook.

a. Project size

Performance contracts generally should be considered when annual utility costs are at least \$200,000, for which a 20% savings would generate \$40,000 annually. Although smaller projects are usually not appropriate for performance contracting, they can be considered sometimes when ESCOs have shown an interest in a project.

b. Economic payback

Projects with short term paybacks (less than 18 months) should not use performance contracts. This statement applies to overall projects, not to individual energy conservation opportunities (ECOs). If paybacks are less than 18 months for individual ECOs, they can be important to include to balance with longer payback ECOs. (See Sec. 5.3 for additional discussion.)

c. Stable use of buildings

Performance contracts require that building occupancy and any other equipment changes that could affect utility energy use for the building remain about the same during the contract period.

d. Project development

The first project in a PHA/IHA with a performance contract can take longer to complete than for a conventional contract, depending on how well the energy conservation needs of the PHA/IHA's buildings are understood. Additional time can be required because a different process is used to select a contractor for a performance contract. Therefore, buildings requiring improvements in less than one year probably should be performed with conventional PHA/IHA contracting methods. Subsequent performance contract projects, however, should be completed much quicker, in about the same time as required for conventional contracts.

3.4 Interaction with Modernization Funding

Traditionally, PHA/IHA retrofit projects using CIAP funds have not used other sources of funding such as a performance contract. Beginning in Federal fiscal year (FFY) 1992, PHAs/IHAs with 500 or more units (250 or more units beginning in FFY 1993) will receive modernization funds based on a formula under the Comprehensive Grant Program (CGP). Smaller PHAs/IHAs will remain eligible for modernization funds under CIAP. Under the CGP, PHAs/IHAs could use modernization funds at their discretion for energy conservation projects that do not have an economic payback, such as the removal of asbestos insulation from existing heating and piping systems.

If a PHA/IHA believes it has a potential energy conservation improvement project that could be funded partly through utility cost savings, it should contact the HUD field office for guidance on the possibility of using modernization funds for non-conservation costs.

3.5 Procurement Methods

HUD's revised PFS regulations implementing the energy provisions of the 1987 HCD Act provide guidance on the type of procurement to be used for energy conservation improvements. The regulation requires that the competitive proposals method of procurement be used in which factors in addition to price are considered. The regulation also mandates that technical factors be given paramount importance over price in the evaluation process.

HUD anticipates that non-competitive proposals will only be permitted if a utility company or its exclusive contractor for such services is the only source available.

Other methods of procurement, small purchases and sealed bidding, are not feasible for this type of procurement. The small purchase method is not appropriate because of the dollar amount and complexity of services to be contracted. Sealed bidding is inappropriate because of the need to evaluate factors other than price, such as the offerors' experience and qualifications. Therefore, the normal procurement method for this type of project can be assumed to be by competitive proposals.

For competitive procurement involving a performance contract, it is suggested that PHAs and IHAs use the Request for Proposal (RFP) method described in Chapter 7. This RFP method for performance contracts permits technical factors to be given priority over price factors, and the only price factor to be considered is that of an energy audit.

If a non-competitive or sole source procurement is allowed in an exceptional case, the same preliminary steps can be used as are described in Chapter 5. The “selection of a contractor” step becomes much simpler and less time-consuming than for a competitive selection procedure described in Chapter 7.

CHAPTER 4. DESCRIPTION OF ENERGY CONSERVATION OPPORTUNITIES

4.1 General

This chapter briefly covers energy conservation opportunities (ECOs) that are most likely to be considered by PHAs/IHAs for their properties. In addition to problems that are known to exist, these areas can be considered when looking into the possibility of developing a performance contract. More detailed information is available in HUD's Making Rental Housing Energy Efficient - Guide to Performing Energy Retrofit During Multi-family Rehabilitation¹, HUD's Energy Conservation, A Workbook², DOE's Architect's and Engineer's Guide to Energy Conservation in Existing Buildings³, and New York State's Multi-family Housing Energy Conservation Workbook⁴.

ECOs are usually identified through a building energy audit. Estimates are then made of the initial cost of the measure and of the cost of the energy that could be saved by the measure. If an ECO is considered to be cost effective, it is selected for implementation and called an energy conservation measure (ECM).

The usual method for determining the cost effectiveness of an ECO is its simple payback period, or the length of time for the cost savings realized to equal the cost of the ECO. By statute, the maximum length of a performance contract or a contract financed with an additional operating subsidy is twelve years. For reasons discussed later, ECOs with payback periods less than twelve years will normally be selected.

Historically, over half of the energy used in public housing is used for space heating, followed in usage by domestic hot water (DHW) heating, lighting and appliances. ECOs are generally classified into one of the following categories:

- a. building envelope (architectural) opportunities
- b. heating equipment opportunities
- c. DHW heating equipment opportunities
- d. lighting opportunities, and
- e. other opportunities (e.g., water conservation).

4.2 Building Envelope Opportunities

The building envelope includes exterior walls, roofs, floors, windows, and doors. Building envelope opportunities are designed to reduce heat losses between the building interior and the outside air. Heat is transferred either directly through the building envelope (conduction) or by leakage of air through the envelope (infiltration).

4.2.1 Control of Heat Conduction Losses

The heat conduction ECOs are essentially the addition of insulation material to the building envelope. Insulation can be added in the attic, walls, floors, and along the crawlspace or basement sidewalls. Insulation materials are usually batts, loose fiberglass or cellulose, and polystyrene boards. The amount of insulation needed varies with the severity of the climate (see HUD Guidebook¹).

Replacing existing windows with double pane windows or the installation of storm windows can be cost effective in colder climates. Replacement windows would be double pane windows with thermal breaks to reduce heat losses. Some PHAs/IHAs have used insulating panels combined with window glazing for added durability. This measure can have the added benefit of reduced air infiltration and reduced interior moisture condensation.

4.2.2 Control of Air Infiltration Losses

Measures for reducing air infiltration are designed to eliminate or reduce the leakage paths for outdoor air to enter the building. ECOs for reducing air leakage vary from simple caulking and weatherstripping of cracks to replacement of damaged windows and doors. Eliminating large openings, such as replacing broken window panes and sealing large holes around utility penetrations, are important.

Since stack effects can be significant in multi-story buildings, attention should be given to sealing holes and cracks that allow air flow in the vertical direction and the installation of properly operating dampers in the exhaust vents.

4.3 Space Heating System Opportunities

4.3.1 General Description

Space heating systems convert electricity or fuel to heat and deliver it to the living spaces. There are many types of space heating systems in multi-family buildings. They range from simple electric resistance heaters in individual apartments to central boiler plants supplying heat to several buildings. Individual apartment heating systems usually are electric resistance heaters, heat pumps, or furnaces. Natural gas, fuel oil and propane are the most common fuels used in central heating systems. Central heating systems usually use steam or hot water (hydronic) to transport heat to the living space.

Selection of the optimum ECOs for a rehabilitation project depends on many factors. Among these are: condition and efficiency of the existing equipment, heating requirements, replacement equipment cost, expected equipment lifetime, system upgrade cost, electricity or heating fuel costs, labor costs, and maintenance and repair costs.

4.3.2 Heating System Opportunities

ECOs for heating systems include repair and adjustment, equipment replacement, electronic ignition, vent dampers, and front end boilers. These ECOs are evaluated by inspection, analysis of fuel or electricity consumption data, and testing the operating equipment.

a. Repair and adjustment

For building rehabilitation, a decision must be made whether to repair and clean (if needed) the existing energy conversion equipment or to replace the equipment. This evaluation should be done by professionals knowledgeable in the equipment technologies, the cost of the replacement equipment, and the expected energy costs. For larger central heating plants, the added cost of engaging a consulting engineer is usually justifiable.

The basic ECO for existing equipment is repair and adjustment. Except for the most simple opportunities, such as air filter replacement and cleaning heat transfer coils, these should be done by skilled technicians. For boilers, cleaning of fireside and waterside surfaces of the water tubes is an important ECO.

b. Equipment replacement

If equipment replacement can be justified, there are energy saving opportunities in installing higher efficiency equipment or switching energy sources, e.g., from electricity to natural gas. Replacement equipment should meet or exceed efficiency standards in 10 CFR 430.32.

c. Burner replacement

Modern gas and oil fired furnaces and boilers generally use electronic ignition devices to ignite the fuel. Older units use gas burning pilot lights, which operate all of the time. For such units, ECOs are the replacement of the pilot light with an electric ignition device or, at least, shut the pilot light off during the summer if the unit is not used for heating domestic hot water.

d. Vent dampers

Installation of automatic vent dampers in fuel-fired equipment flues is an ECO that can reduce fuel consumption by reducing the heat loss when the burners are not operating. This is accomplished by reducing the air flow over the equipment heat exchange surfaces.

e. Front end boilers

For larger installations, the addition of a small front end boiler has been an effective measure in some cases. During the summer and warmer weather periods, heat demand is low and the boiler is operating at lower efficiencies due to cycling losses. A small boiler would have less cycling and operate at higher efficiency at these times. If an existing boiler is being replaced, installation of multiple boilers should be considered.

4.3.3 Heat Distribution System Opportunities

Heat is distributed throughout the building by steam or hot water flowing in a pipe network. Steam systems were generally installed in buildings constructed before 1945. Buildings constructed since that time generally have hydronic systems that use hot water to deliver heat from a boiler to the living spaces.

ECOs for heat distribution systems include installation and repair of insulation, cleaning and servicing heat terminal units, steam system balancing, converting steam systems to hydronic systems, installing zone and radiator controls, and outdoor reset and cutout controls.

a. Insulation installation and repair

One ECO that is common to all types of heating systems is the insulation of system components, such as pipes, and valves. NOTE: The type and condition of existing insulation must be evaluated with concern for the presence of asbestos that was used extensively until the 1980s. Since environmental hazards associated with handling of asbestos can make its removal very costly, decisions to repair or replace such insulation should involve those experienced in asbestos handling and removal. PHAs/IHAs and performance contractors that will be involved in asbestos handling should consider its consequences, including methods of financing, during negotiations for a performance contract.

b. Cleaning and servicing heat terminal units

For the heat terminal units in the apartments, such as radiators and fan coil units, cleaning of the heat exchange surfaces and removal of obstructions to air flow are important. Any air filters should be replaced. If the unit has a circulating air fan, it should be cleaned and lubricated or replaced.

c. Steam system balancing

For single pipe steam systems, steam balancing has been an effective ECO for increasing the uniformity of heating throughout the building, thus reducing heating fuel consumption. The procedure involves a number of steps to achieve more uniform temperatures. Steam balancing is still much of an art, and should be done by experienced personnel.

d. Converting steam systems to hydronic systems

Conversion of existing steam distribution systems to hot water systems has been shown to be a viable ECO. It is usually more cost effective for two pipe steam systems than for single pipe steam systems because two pipe systems have supply and return pipes. Also steam radiators frequently can be converted to hot water operation. Steam boilers are often converted to generate hot water, but more often replaced because of other reasons, such as the original boiler being inefficient and nearing the end of its useful life.

e. Zone and radiator controls

Zone and radiator controls can be used for both the two pipe steam systems and for hydronic systems. They basically use a valve controlled by a thermostat to regulate the flow of the heating fluid into the zone or the radiator. Local temperatures can be adjusted using these valves to minimize overheating in some apartments while meeting the needs of colder apartments. Adding such controls will generally result in energy savings.

f. Outdoor reset and cutout controls

Outdoor reset and cutout controls are used primarily for hydronic and two pipe steam systems. The heat load is below the peak load most of the time and can be satisfied using lower temperature water or lower pressure steam. Outdoor reset control uses the outdoor air temperature signal to reduce heat distribution system temperature or pressure. Above some outdoor air temperature setpoint when the heating load is negligible, the cutoff control can shut off the boiler and the hot water circulating pump.

4.4 Domestic Hot Water (DHW) System Opportunities

4.4.1 General Description

As for space heating systems, there are many types of DHW systems used in multifamily buildings. They can be individual residential type heaters installed in each apartment or central systems serving the entire building. The central systems can be commercial tank type heaters (large versions of residential tank heaters) or water heating units with separate storage tanks. The central systems have dedicated distribution networks to connect the apartments to the DHW supply, and they may have a circulation pump installed to maintain the DHW temperature throughout the network at all times.

4.4.2 DHW System Opportunities

As for space heating systems, many of the ECOs are dependent on the specific type of system. If the entire DHW system is being replaced, consideration should be given to using an alternative type of system.

For all DHW systems, the following ECOs can be considered.

- a. Lower the DHW temperature to about 120° F.
- b. Insulate the hot water heaters, storage tanks, and distribution pipes. For components already insulated, repair and add insulation. See NOTE about asbestos insulation in Sec. 4.3.3.
- c. If heater is near the end of its useful life, replace it with a high efficiency unit.

For fuel-fired, tank-type heaters, the ECOs are the following:

- a. Install automatic vent dampers.
- b. Install electronic ignition burner.
- c. If heater needs replacement, consider installing a high efficiency boiler, such as a condensing boiler, and a separate storage tank.

For a central DHW system being rehabilitated, consideration should be given to installing individual heaters or several heaters, each serving a block of apartments. New high efficiency, gas hot water heaters that can be vented through the walls are now becoming available. The lengths of distribution piping could be reduced, which helps to reduce energy consumption.

4.5 Lighting Opportunities

4.5.1 General Description

Advances in lighting technology offer opportunities for energy savings. They are usually identified by inspection.

Incandescent lights have the lowest efficiency, in the range of 5 to 20 lumens per watt. Fluorescent lights have efficiencies in the range of 40 to 90 lumens per watt. Newer electronic ballasts for fluorescent lights are more efficient than the old magnetic ballasts. Metal halide lamps have efficiencies in the range of 60 to 100 lumens per watt, and sodium vapor lamps have efficiencies in the range of 50 to 160 lumens per watt. Even though fluorescent and sodium vapor lamps are more expensive than incandescent lamps, these improved types of lighting fixtures generally last 5 to 20 times longer than incandescent lamps, which also reduces maintenance costs for relamping. PHAs/IHAs should consider using permanent or vandal-resistant types of fluorescent lamps rather than screw-in lamps.

4.5.2 Specific Opportunities

Lighting ECOs include the following:

- a. Replace low efficiency incandescent lamps with high efficiency, compact, fluorescent lamps as much as possible. Among the locations to be considered are kitchens, bathrooms, common areas (corridors and meeting rooms), and exit lights.

- b. Rehabilitate existing fluorescent fixtures by cleaning, replacing existing ballasts with high efficiency electronic ballasts, and replacing discolored lens covers.
- c. Remove lights in excess of those required for intended purposes.
- d. Replace low efficiency lights on the exterior of the building with high efficiency lights, such as sodium vapor lamps.
- e. In common areas, install a switch activated by a photoelectric cell, timers and motion detectors to turn off the lights when they are not needed.

4.6 Cost Effectiveness Considerations

Many factors, such as climate, initial costs, and the magnitude of the building renovation impact the cost effectiveness of ECOs. For example, in colder climates, significant energy savings can be realized by window replacement. However, unless the window is being replaced for additional reasons, the measure is not necessarily cost effective because of high initial costs.

When evaluating the cost effectiveness of alternative ECOs, the ECOs and their interactions should be considered together. Extending the example in the previous paragraph further, suppose that the replacement windows were cost effective. The demand on the heating system would be reduced. Evaluation of heating system ECOs then should be on the basis of reduced heating requirements.

4.6.1 Initial Costs

Reported initial cost data for a number of ECOs have been compiled by Lawrence Berkeley Laboratory (LBL)⁵. Additional data for the initial costs of a number of energy saving measures are published in the Commercial and Apartment Conservation Service (CACS) specification and cost manual.⁶

4.6.2 Payback Times

Evaluation of ECOs is done on the basis of the funds that can be saved by the implementation of the measures. The simplest means for evaluating cost effectiveness is simple payback time.

Estimates of simple payback times for selected masonry multifamily building ECOs were made by Nichol and Stovall.⁷ The energy savings were predicted using the DOE-2 building simulation program. Payback times were calculated using the predicted energy savings and the cost data published in the CACS specification and cost manual.⁶ Additional data on payback times were made by LBL for heating system ECOs.⁵

CHAPTER 5. PRELIMINARY PROJECT PLANNING

This chapter describes a suggested planning process for starting an energy conservation improvement project using a performance contract. There are several steps in this process that can be different from a normal retrofit or improvement project using PHA/IHA or modernization funds. These steps will be discussed in more detail than other steps that are the same as for normal contract projects.

5.1 Check for Minimum Size Project

The first step in planning for an energy conservation project is to see whether the size of the project in terms of annual utility cost is large enough to be attractive to potential ESCOs. Since most ESCOs have certain fixed costs and must also make a profit, they desire projects that are large enough to provide for these financial requirements. Experience with performance contracting indicates that the annual utility cost for electricity, natural gas, and fuel oil should be at least \$200,000 and more likely \$500,000 to attract ESCOs to respond to an RFP. Water conservation projects should also be considered. In some cases, smaller cost projects may be possible for certain ESCOs that specialize in lower cost ECOs.

5.2 Building Energy Audit

The next step in preparing for an energy conservation improvement project is to perform a building energy audit for the buildings or systems in your PHA or IHA. If an ESCO is eventually selected to prepare a performance contract proposal, it will perform its own building energy audit for its analysis of ECOs to include in a retrofit project.

The purposes of an energy audit in preparing for an energy conservation improvement project are as follows:

- a. to educate the PHA/IHA staff about the condition of their property from the perspective of energy conservation;
- b. to obtain sufficient information on the Energy Conservation Opportunities (ECOs) to estimate their simple payback; and
- c. to develop a list of potential (ECOs) for consideration in an energy conservation improvement project.

There are several levels of energy audits, from a Class C audit—a quick walk-through, with only visual information obtained on the general condition of the building shell and its heating system—to a Class A audit—a detailed audit with building measurements, analysis of utility records, and tests of the heating system to determine its efficiency.

PHA/IHAs should have an updated energy audit that can be used for these purposes. If not, a walk-through audit that can be performed by the housing manager and maintenance staff may be used for these purposes. Another alternative is to obtain the services of a professional energy auditor to perform an energy audit of your properties. The cost of such an audit is an eligible expense for which the retained savings may be used. It may be necessary to pay for the audit prior to entering into a performance contract and the payment is an eligible operating expense.

One of the types of information developed by the energy audit is the annual usage of energy and the associated cost for space heating and domestic hot water. Energy use information is important because it indicates the

amount of energy and cost that could be saved by energy conservation improvements. Such energy use information is also necessary if an RFP is prepared for prospective ESCOs to evaluate the PHA/IHA's project. The most useful information is for each building, but often meters are not installed in each building. Then metered data available for several buildings may have to be divided between the buildings served on the basis of the amount of heated floor space.

The final step in the audit is to assign an estimated simple payback time to each type of ECO. (The simple payback time is the period of time in years that the cost savings from an ECO would equal the total cost of installing the ECO.) General information on simple payback times for various ECOs is available in the references of Chapter 4; in addition, an energy auditor used to perform an audit could provide estimates of simple payback times.

5.3 Screen ECOs by Payback Time

Once an energy audit has been completed, a list of ECOs should be available for the buildings in a PHA/IHA with an estimated simple payback for each ECO. There are two criteria by which suggested ECOs should be screened at this point for consideration in a performance contract project (see Figure 5.1).

- a. The first criterion for screening ECOs is based on the maximum twelve year period allowed by the 1987 Act for a performance contract project. Realistically, most ECOs that would be of interest to an ESCO would have a payback less than ten years - more likely three to five years. A PHA/IHA should not expect ECOs with long paybacks to be included in a performance contract proposal by an ESCO. However, as noted above, ECOs with long and short payback times can be combined to give an average payback time for a building that is acceptable to an ESCO. In general, ECOs with paybacks up to about ten years could be retained for consideration in a performance contract. But if a PHA/IHA wishes to install an ECO with a payback time of twelve years or longer, it should probably plan to do so with modernization or other funds.
- b. The second criterion is for ECOs that have relatively short payback times, such as less than 18 months. Short payback ECOs should be identified because they are the most attractive economically and should be implemented as soon as possible to realize reduced utility costs. Therefore short payback ECOs should be considered for installation using operating reserves or other readily available funds. Frequently, water conservation measures fall into this category. Another option is to combine short payback ECOs with longer payback ECOs in order to increase the number of ECOs included in a project. The advantages of this option must be evaluated for each situation, but the desirability of installing ECOs with short payback times early should give such ECOs a high priority.

Sometimes the payback time is extended because of additional costs that are related to installing an ECO but do not contribute to energy savings. An example of this situation is replacing an older, inefficient central boiler that involves removal of asbestos insulation. It is possible to pay for such non-conservation costs using modernization funds and keep the payback for the primary ECO low enough to be of interest to ESCOs (see Sec. 3.4).

Once the annual utility cost has been determined to meet the minimum level required and a list of ECOs has been made that meet the payback criteria discussed above, then the PHA/IHA can consider using a performance contract type of project.

5.4 Assemble Project Team

The next step in planning this type of project is to assemble a project team to carry out the various functions required. These functions include, at a minimum:

- a. project manager;
- b. legal, contracts, and procurement;
- c. economic and financial analysis; and
- d. facility engineering and utilities.

Several of these functions may be covered by the same individual for smaller PHA/IHAs, but they should all be represented on the project team. The personnel may also be the same as has handled past competitively bid procurement projects, as that experience could be useful in a performance contract project.

If this is the first time a performance contract project is being used by a PHA/IHA, the role and responsibilities of the project manager are most important. This individual has the major responsibility for planning, organizing, and completing the project, if possible. The project manager's authority within the PHA/IHA should be clearly defined as to his/her limits of decision-making with respect to legal and contractual matters.

5.5 Local Regulations for Performance Contracts

Before proceeding further in planning a performance contract project, the PHA/IHA counsel should check on local regulations to ensure that they will not pose a problem if a contract is actually negotiated.

5.5.1 Multi-Year Contracting

A performance contract will normally require a contract period of five to ten years for the project to recover all costs through energy savings. The issue to be resolved for a PHA/IHA is whether it has the authority to enter into a long-term contract as opposed to a short-term contract used with CIAP-funded projects.

5.5.2 Contractor Selection Method

As has been discussed in Sec. 3.5, most performance contracts will use competitive proposals for selecting an ESCO. Contractor selection for a performance contract must be based predominantly on the qualifications of ESCOs plus the estimated cost of an energy audit with evaluation criteria discussed in Sec. 7.2. Local regulations should be reviewed to determine if such a procedure is allowable for the PHA/IHA.

5.5.3 Union Maintenance Contract

If the PHA/IHA employs union personnel for equipment maintenance, the union contract should be reviewed for the possibility that maintenance services may be provided by non-union personnel of an ESCO as a part of a performance contract. Any conflict with a union maintenance contract should be understood prior to negotiating a performance contract with an ESCO employing non-union personnel.

5.6 Involve Local HUD Field Office

If a PHA/IHA has passed through all of the checks presented in this section and has a list of ECOs it believes could be installed with a performance contract, it should contact the local HUD field office and inform it that an energy conservation improvement project using a performance contract is being planned. Chapter 6 contains guidance on the proper procedures to follow for making a proposal to HUD. The local HUD field

office may also be able to provide information on other PHAs/IHAs using performance contracting and sources of technical assistance in the area.

5.7 Assemble List of Contractors to Send an RFP

The final step in this planning phase is to assemble a list of ESCOs to be considered for sending a Request for Proposal. The best starting point is to obtain a current bidders list from the National Association of Energy Service Companies (NAESCO). The ESCOs on this list can be supplemented by additional contractors that may be of interest to the PHA/IHA through recommendations of other PHAs/IHAs or professional contacts.

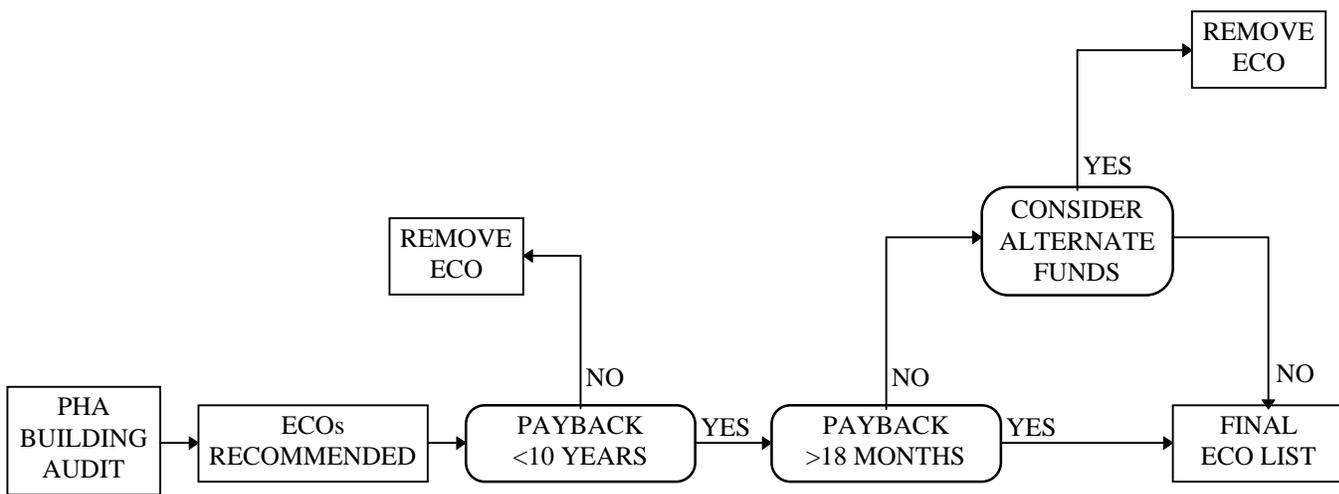


Fig. 5.1. Screening of ECOs for performance contract project.

CHAPTER 6. HUD-PHA/IHA INTERACTION ON ENERGY CONSERVATION PROJECTS

HUD's Final Rule revising the PFS regulations to implement Section 118(a) of the HCD Act of 1987 specifies certain requirements to be met by PHA/IHAs that wish to implement energy conservation projects using the energy conservation incentives in the Act. This chapter presents guidance for PHA/IHAs and HUD field and regional offices on HUD procurement requirements, application procedures, and approval requirements related to such energy conservation projects.

6.1 Preliminary Planning with HUD Field Office

When a PHA or IHA decides to proceed with either a performance contract—involving freezing of the rolling base—or an “add-on” of additional operating subsidy, it should inform the HUD field office so that it will be aware of the PHA/IHA's plans and can provide technical assistance. A meeting with representatives of the PHA/IHA and the field office would be useful to review HUD's approval requirements and to set up any communication and documentation requirements. The PHA/IHA should understand that involving the HUD field office early and throughout a project should help to obtain a timely review and approval by HUD of PHA/IHA proposals.

6.2 Performance Contracts (Freeze the Rolling Base)

6.2.1 Procurement Requirements

HUD procurement requirements for performance contracts by PHA/IHAs under Section 118(a) of the 1987 Act have similarities to PHA/IHA contracts using HUD modernization funding. Performance contracting should follow the same federal requirements involving small and minority-owned businesses as discussed in 24 CFR 85.36.

Contractor selection for performance contracts, however, should use the comparative proposals method and issue a Request for Proposal (RFP) based on contractor qualifications plus the estimated cost of an energy audit, as described in Chapter 7. The reason for using the comparative proposals method for performance contracts is because different scopes of work or energy conservation measures could be offered by contractors responding to an RFP, making it impractical to compare contractors solely on the basis of their cost proposals.

6.2.2 HUD Field Office Review Requirements

HUD review is required at three steps in developing a performance contract with an ESCO. These steps are:

- a. the Request for Proposals (RFPs) prior to sending it to prospective ESCOs;
- b. the contract with an ESCO to perform the energy audit; and
- c. the final performance contract negotiated between the PHA/IHA and the ESCO.

The RFP and these contracts should be submitted to the HUD field office for review when they are developed by a PHA/IHA. Preliminary versions of these documents should be provided to the field office to allow HUD to have advance notice of progress on proposed performance contracts.

6.2.3 Application Procedure

Applications for a “freeze of the rolling base” should be made by a PHA/IHA when it has negotiated a performance contract with a contractor (ESCO) to provide energy conservation improvements for its buildings.

Applications for a “freeze of the rolling base” should contain the following elements:

- a. a description of the buildings or facilities and the energy conservation measures proposed by the ESCO including any changes in fuels or energy;
- b. a summary of the contract terms proposed by the PHA/IHA including amount of the loan, interest rate, contract period, payment schedule, energy savings guarantee, and financing;
- c. statement of any maintenance or services to be provided by the contractor;
- d. a copy of the contract; and
- e. a financial summary of the project as presented in Table 6.1 (to be completed by the PHA/IHA with the appropriate HUD field office’s assistance or by the field office).

6.2.4 HUD Regional Office Approval

After field office review, for each step in Sec. 6.2.2, appropriate documents will be forwarded to the appropriate HUD regional office with a recommendation for approval, modification or disapproval.

6.3 Additional Operating Subsidy

6.3.1 Application Procedure

Applications for an add-on of operating subsidy may be made by a PHA/IHA when it has negotiated an agreement with a utility or a contract with a contractor to provide energy conservation improvements for its buildings which involves a loan with a specified amortization of the debt.

Applications for an additional operating subsidy should contain the following elements:

- a. a description of the buildings or facilities and the energy conservation measures proposed by the contractor or utility including any changes in fuels or energy;
- b. a summary of the financing terms proposed by the PHA/IHA including the amount of the loan, interest rate, financing source, loan period, and payment schedule; and
- c. a copy of the agreement or contract
- d. a financial summary of the project as presented in Table 6.2 (to be prepared by the PHA/IHA with the appropriate HUD field office’s assistance or by the field office).

6.3.2 Approval Requirements

A completed application for an add-on of operating subsidy should be submitted to the appropriate HUD field office with the documentation described above. After field office review, a recommendation will be forwarded to the appropriate HUD regional office for approval, modification, or disapproval.

6.4 Annual Reporting Requirement

When HUD has approved (1) a “freeze of the rolling base” for a performance contract or other arrangement or (2) an additional operating subsidy to implement energy savings improvements, the PHA/IHA must provide the following information annually to HUD for the development(s) involved for the duration of the contract or agreement:

- a. Separate Form HUD-52722A (PFS Handbook 7475.13 REV)
- b. Separate Form HUD-52722B (PFS Handbook 7475.13 REV)

The estimated utility cost and consumption data contained in the separate Form HUD-52722A will be submitted annually with the operating budget. The actual utility cost and consumption data contained in the separate Form HUD-52722B will be submitted annually after the end of the PHA/IHA fiscal year with the mandated year-end adjustments.

6.5 Prevailing Wage Rates for Public Housing Agencies

Section 12(a) of the U. S. Housing Act of 1937 (USHA), as amended, provides in part as follows with respect to the payment of prevailing wage rates on public housing projects:

Any contract for loans, contributions, sale, or lease pursuant to this Act shall contain a provision requiring that not less than the wages prevailing in the locality, as determined or adopted (subsequent to a determination under applicable State or local law) by the Secretary, shall be paid to all architects, technical engineers, draftsmen, and technicians employed in the development, and all maintenance laborers and mechanics employed in the operation, of the low-income housing project involved; and that not less than the wages prevailing in the locality, as determined by the Secretary of Labor pursuant to the Davis-Bacon Act shall be paid to all laborers and mechanics employed in the development of the project involved

Section 12(b) of the USHA, added by Section 955(b) of the National Affordable Housing Act, provides an exemption from the provisions of Section 12(a) for volunteers.

Under the quoted provision, prevailing wage rates are applicable to laborers and mechanics employed in the development or operation of a housing project that is subject to a contract for contributions, etc., regardless of the source of funding for the specific work being undertaken. Energy conservation modifications funded by grants from a utility company, for example, rather than assistance under the USHA, as well as those modifications that are financed by loans repaid with assistance provided under the USHA, are subject to prevailing wage requirements (excepting Section 12(b) volunteers). The appropriate Regional or Field Office Labor Relations staff may be contacted for additional information relating to this requirement.

TABLE 6.1

SUMMARY OF IMPACT OF FREEZING ROLLING BASE

NAME OF PHA OR IHA: _____

PROJECT NAMES(S) AND ACCT. NO(S): _____

YEAR AFTER CONTRACT	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
1. TOTAL UTILITY SAVINGS													
2. PAYMENTS TO CONTRACTOR (ESCO)													
3. PAYMENTS TO FINANCIER													
4. NET SAVINGS TO PHA OR IHA (Line 2–Lines 3+4)													

LENGTH OF CONTRACT: ___ YEARS

TABLE 6.2

SUMMARY OF IMPACT OF ADDITIONAL OPERATING SUBSIDY

NAME OF PHA OR IHA: _____

PROJECT NAME(S) AND ACCT. NOS.: _____

YEAR OF CONTRACT	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
1. PFS UTILITY ADJUSTMENT													
2. SAVINGS TO PHA (1/2 of util. adj.)													
3. SAVINGS TO HUD (1/2 of util. adj.)													
4. SAVINGS TO HUD IN PFS ROLLING BASE													
5. TOTAL SAVINGS TO HUD (Lines 3 + 4)													
6. LESS: ADD-ON													
7. NET SAVINGS (COST) TO HUD													

LENGTH OF CONTRACT: _____ YEARS

TOTAL LOAN AMOUNT: _____

ESTIMATED ANNUAL SAVINGS FROM IMPROVEMENT(S): _____

CHAPTER 7. CONTRACTOR SELECTION—PERFORMANCE CONTRACTING

This chapter presents a suggested method for a PHA/IHA to select an Energy Service Company (ESCO), or a contractor that installs energy conservation improvements under a performance contract, using competitive procurement procedures.

7.1 General Description

The procedures described here have been developed by the State of Illinois to meet the special requirements for procurement of an ESCO for a performance contract with public agencies. The sample RFP and proposal evaluation procedure presented can be customized to meet specific requirements of a PHA/IHA.

The factors considered in selecting an ESCO for a performance contract, as presented in the final HUD Rule, differs from the normal competitive procurement process in that the only factors that need to be considered are 1) an ESCO's qualifications to perform energy conservation improvements and 2) their proposed cost for an energy audit of the facilities specified by the PHA in their RFP. The proposed cost of performing energy conservation improvements cannot enter into the selection of an ESCO, since the specific improvements involved are not determined until after an ESCO is selected and performs an energy audit. Therefore, the contractor selection process presented here is based on ESCO's qualifications plus the cost of an energy audit.

This selection process satisfies the competitive procurement requirements by using a formal evaluation method to rank ESCOs responding to a Request for Proposal (RFP). The RFP requests prospective ESCOs to present information on their qualifications in terms of prior experience, technical approach, project management, and financial approach. After a detailed evaluation of written proposals and a telephone interview with previous clients, a competitive range will be established based on the evaluation of the technical and price proposals. The range shall include all those offerors who have a reasonable chance of receiving the contract award. The offerors within the competitive range will be invited to participate in oral interviews. The results of the oral interviews are incorporated with the results of the written proposals and telephone interview, the finalist ESCOs are ranked, and an ESCO is selected by the PHA/IHA.

The selection process is described below in terms of initial and final phases.

7.2 Initial Phase of Contractor Selection

The primary steps in the initial phase of contractor selection are shown in Fig. 7.1.

7.2.1 Prepare an RFP

If a PHA/IHA has not used a performance contract before with a competitive selection process, an RFP will have to be prepared to solicit proposals from prospective ESCOs. A sample RFP that follows the procedure presented in this chapter is contained in Appendix B. Standard conditions of an RFP used by a PHA/IHA for competitive contracts can be added to the sample RFP, as required.

Attachment A of the sample RFP requests information in the following areas which serve as the basic elements for evaluating proposals.

a. Technical approach

- (1) A sample energy audit performed on a similar type of property.

- (2) Understanding of systems, operations, and building conditions of the PHA/IHA's properties.
 - (3) Comprehensiveness of the improvements and energy conservation measures likely to be included.
 - (4) Calculation method for establishing baseline energy consumption and measuring energy savings.
- b. Experience
- (1) Previous experience in projects similar to that described in the RFP including contacts for previous clients.
 - (2) Qualifications of project team members and subcontractors, including minority- and women-owned firms.
 - (3) Documented energy and cost savings of previous retrofit projects performed by the ESCO.
 - (4) Amount of experience in arranging project financing.
- c. Financial approach
- (1) Method for calculating annual payments by the PHA/IHA.
 - (2) Sample financing arrangement proposed for this project.
 - (3) Estimated energy audit cost.
 - (4) Method for calculating the value of energy savings.
 - (5) Terms of proposed savings guarantee.
 - (6) Financial soundness and stability of the ESCO.
 - (7) Contract terms and conditions required by the ESCO.
- d. Project management
- (1) Assignment of responsibility of project tasks to specific individuals.
 - (2) Ability to manage construction, repairs, regular service and provide for emergencies.
 - (3) Ability to complete project on schedule.
 - (4) Ability to service and maintain equipment and train PHA/IHA maintenance personnel.
 - (5) Ability to coordinate project with local utilities, subcontractors, equipment suppliers, and facility personnel.
 - (6) Ability to achieve the resident participation goals of the PHA/IHA.

Other information and requirements are included in the following attachments of the sample RFP:

- Attachment B. Proposed Project Schedule—site visit, proposal submission date, and other project milestones;
- Attachment C. Project Terms and Conditions—scope of services, contractual conditions;
- Attachment D. ESCO Profile Form;
- Attachment E. ESCO's Qualifications and Approach to Project.

The RFP next identifies the properties the PHA/IHA wishes to be considered by the ESCOs in their proposals. Appendix C contains a format for PHAs/IHAs to provide the ESCOs with basic information on fuel types, current annual consumption and costs, a physical description—floor areas, number of units, energy systems data, a history of retrofits performed—and list of improvement opportunities considered for each building.

Once an RFP is prepared or adapted from the sample in Appendices B and C, the PHA/IHA would advertise in the newspaper and/or appropriate trade journal as well as send it to the contractors on the list of prospective ESCOs assembled in Sec. 5.7.

7.2.2 Pre-proposal Meeting of ESCOs

A pre-proposal meeting of prospective ESCOs can be scheduled after the RFPs have been received by the ESCOs. The purpose of the meeting would be to explain the RFP process, to provide general information about the properties (although a site visit would not be included at this time), and to answer any questions from the ESCO representatives. Attendance at this meeting would not have to be required for responding to the RFP.

7.2.3 Site Visit

A site visit of the properties proposed for retrofit and rehabilitation should be arranged by the PHA/IHA. The PHA/IHA should make operating and maintenance personnel available to answer questions about existing equipment. Also any additional utility data that ESCOs request should be provided at this time.

7.2.4 Submission of Proposals

Proposals should be requested from prospective ESCOs within a reasonable time period from the issuance of RFPs. As was stated earlier, the goal of the initial proposal phase is to select those ESCOs whose proposals fall within the competitive range. However, if it is felt that too few ESCOs have responded to the RFP to have a competitive selection, the PHA/IHA must re-advertise in the newspaper and/or appropriate trade journal, with an extended submission deadline. The PHA/IHA should resubmit the RFP to a wider list of prospective offerors through the required public advertising. The PHA/IHA could also contact ESCOs on its list of prospective offerors that did not respond to determine if proposals would be submitted within the time extension reflected in the re-advertisement. Requests for additional time for submitting a proposal can be allowed if all prospective ESCOs are given the same time extension, which will be reflected in the required advertisement.

7.2.5 Evaluation of Qualifications

The evaluation team should be composed of members of the project team representing at a minimum the following interests: finance and administration, engineering and operations, legal and contract management.

Two steps are used to establish the competitive range. In the first step, written proposals should be evaluated by the project evaluation team based on weighting the basic categories of proposals: technical approach, financial approach, experience, and project management. Appendix D contains ranking forms provided for evaluating the written qualifications submitted. It should be noted that this evaluation procedure is a comparative method even though it uses numerical scoring of the responses.

Each question in these categories is assigned a numerical weight—see Appendix E for suggested question weights. The respondent's information is ranked by the evaluation team in the following order—Superior (1 point), Very Acceptable (0.5 points), Acceptable (0.25 points), Not Acceptable (0 points). In the point value system recommended, the following relationships are recommended for the response ranks: Very Acceptable = 1/2 x Superior, and Acceptable = 1/2 x Very Acceptable. Not Acceptable always has 0 points. Each element of the respondent's information would be given a combined score—i.e., (Question weight) x (Response rank—Superior, Very Acceptable, etc.).

If stated in the RFP, the second step of the RFP evaluation is a telephone investigation of client references supplied by each ESCO. Evaluators ask each reference the same set of prepared questions that correspond to the elements of the written evaluation described above—see Appendices D and E for the interview forms and suggested question weights. References are asked to rank the ESCO with the same attributes—Superior, etc.—as used in the written evaluation. This step of the evaluation provides the evaluation team with specific information about the ESCO's past performance and the client's satisfaction.

7.2.6 Selection of Finalists

The results of the written and telephone interviews are combined, and the ESCOs included in the competitive range are selected to participate in the final evaluation phase. If the evaluation team concludes that all the proposals were unacceptable, the team may wish to contact the responding ESCOs and request additional information or a revised proposal, or the team could decide to initiate the solicitation process again.

When the finalists in the competitive range have been selected, they should be notified and requested to prepare an oral presentation according to the format contained in Appendix D—Oral Interview. The responding ESCOs not selected should be informed using normal procedures.

7.3 Final Phase of Contractor Selection

The primary steps in the final phase of the contractor selection process are an oral interview and a final ranking of the finalists to select an ESCO, as shown in Fig. 7.2.

7.3.1 Oral Interview

Each oral interview typically lasts 2-4 hours with the first 30 minutes for a presentation by the ESCO and the remaining time for questions by the evaluation team. Instructions for the ESCO's presentation in Appendix D indicate that the ESCO should cover the following list of topics relating to its qualifications and approach to the project: design, construction, financing, training, O&M services, performance monitoring, and performance enhancement.

The question-and-answer session can cover the topics listed in Appendix D plus other questions that the evaluation team may pose. Generally, this session should be divided into two parts covering the ESCO's "Approach to the Project" and its "Site Specific Recommendations."

After each interview, evaluators should rank the ESCO's presentation using the same attributes used for ranking the written proposals—Superior, etc.—as shown in the Oral Interview evaluation forms in Appendix D. Suggested weighting values for the oral interview questions are shown in Appendix E. At the conclusion of all interviews, the evaluators are given the opportunity to re-rank the ESCOs' presentations to provide for adjustments in the relative effectiveness of their presentations.

7.3.2 Best and Final Offers

At the conclusion of all interviews, the offerors in the competitive range may be given an opportunity to submit a "Best and Final Offer" with any changes to their written proposal as a result of the oral interview.

If the written proposals are modified by a "Best and Final Offer", the written proposals should be re-evaluated by the evaluation team using the evaluation procedure in Appendix D.

7.3.3 Selection of an ESCO

The numerical results of the oral interviews are added to the results of previous evaluation phases to develop a total ranking of the finalists. On the basis of the total results of the qualifications evaluation and audit price, the highest ranked finalist would be named as the ESCO selected to proceed with the next phase of the project.

In the case of a “tie” in the evaluation results, i.e., the numerical results are so close as to be not significantly different, the Executive Director of the PHA/IHA may make the selection if requested by the evaluation team.

7.3.4 Announcement of ESCO Selected

When an ESCO has been selected, it should be so notified. The remaining ESCOs should be informed of the results of the evaluation, and thanked for their participation.

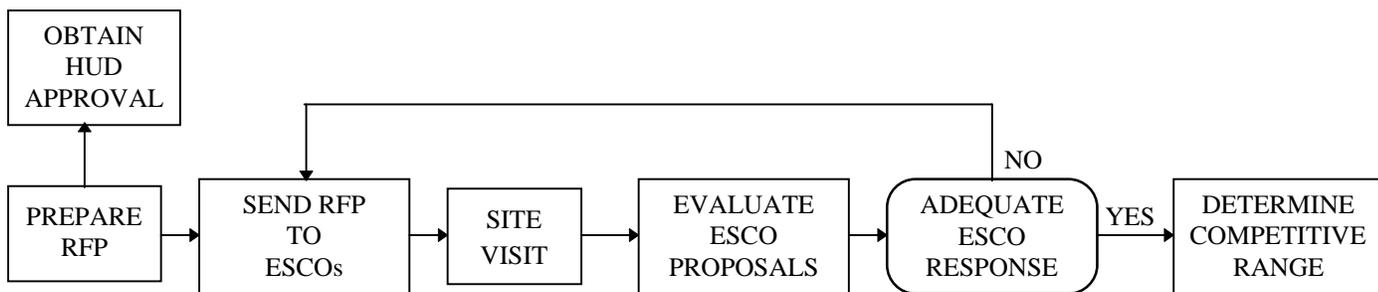


Fig. 7.1. Initial phase of contractor selection.



Fig. 7.2. Final phase of contractor selection.

CHAPTER 8. NEGOTIATION OF PERFORMANCE CONTRACT

Once an ESCO has been selected through the RFP process described in Chapter 7, negotiation of a performance contract can begin. This is the most critical phase leading up to actually starting an energy conservation rehabilitation project.

8.1 General Description

The primary steps in negotiating a performance contract with an ESCO are shown in Fig. 8.1.

This process involves negotiating in parallel two related parts of a performance contract. The first part of the process is the energy audit by the ESCO and the ESCO's submission of a proposal which becomes part of the performance contract. The ESCO's technical and financial proposal uses the results of the audit in selecting ECMs and developing financial and technical data. The second part of the process is negotiating the terms of the performance contract using a sample performance contract as a basis. Finally, the total performance contract is submitted by the ESCO, and details of the contract are negotiated.

8.2 Negotiate Contract for Energy Audit—First Phase of Contract

The first step in the negotiation process is for the ESCO and PHA/IHA to negotiate a contract to perform an energy audit. Since the estimated cost of an energy audit was included in the ESCO's response to the RFP, this contract mainly formalizes the terms and conditions of the audit. The contract also obligates the PHA/IHA to reimburse the ESCO for the audit cost either through the payment of fees during the performance contract or as a single payment if negotiation of a performance contract is not successful. If this situation was to occur, it is important for PHAs/IHAs to understand that they would be responsible for that ESCO's audit cost.

When a contract has been negotiated with the ESCO, it should be submitted to the HUD field office for approval.

8.3 Energy Audit and Proposal by ESCO

The next step is for the ESCO to perform an energy audit on the buildings and facilities included in the PHA/IHA's RFP. This audit is usually required because the ESCO will not want to accept the results of an audit performed by anyone else as a basis for its final selection of ECMs to be included in a technical proposal. However, the PHA/IHA may wish to share the results of a prior energy audit with the ESCO in order to reduce the effort required for a new energy audit.

The ESCO will use the results of its energy audit to make a proposal to the PHA/IHA for ECMs to be included and the corresponding financial cost projections.

8.4 Performance Contract Negotiations

In parallel with the conduct of an energy audit by the ESCO, the PHA/IHA and ESCO need to define and agree on the terms of a performance contract or energy services agreement. This step can be initiated by the PHA/IHA proposing a format for contract terms to the ESCO. The PHA/IHA's proposal can be based on the contract terms and conditions required by the ESCO as a part of its response to the RFP or the sample contract in Appendix F.

Elements included in a sample performance contract in Appendix F, used by the State of Illinois, are listed below.

1. Audit and attachment of schedules
2. Energy usage records and data
3. Commencement date and terms
4. Payments to company
5. Construction schedule and equipment installation
6. Equipment warranties
7. Permits and approvals; coordination
8. Performance by company
9. Ownership
10. Location and access
11. Equipment service
12. Upgrading or altering the equipment
13. Standards of comfort
14. Material changes
15. Property/casualty insurance/indemnification
16. Casualty or condemnation of premises
17. Conditions beyond control of parties
18. Events of default
19. Remedies upon default
20. Assignment
21. Arbitration
22. Representation and warranties
23. Additional representations of the parties
24. Waiver of liens
25. Compliance with law and standard practices
26. Independent capacity of the contractor
27. No waiver
28. Severability
29. Complete agreement
30. Further documents
31. Applicable law
32. Notice
33. Client's compliance with checklist
34. Headings

The performance contract will have to comply with Form HUD-5370, "General Conditions of the Contract for Construction—Public and Indian Housing Programs," especially with regard to the Default clause. Also the clauses required by 24 CFR 85.36(i) must be included. In addition, the contract for a PHA/IHA should include the elements "Energy savings guarantees" and "Resident training and involvement."

When representatives of the ESCO and the PHA/IHA have agreed on a format for the performance contract, the ESCO should submit a performance contract or energy services agreement to the PHA/IHA.

If the PHA/IHA and ESCO cannot agree on the conditions of a performance contract, the PHA/IHA would have to terminate negotiations with the ESCO and initiate a new RFP process. Since this would result in the PHA/IHA losing the time and effort invested to this point, it is in the PHA's interest to come to an agreement with the ESCO on the conditions of a contract. Several key issues in negotiating a performance contract are savings guarantees, equipment ownership, payment schedules, and remedies upon default.

8.5 Submission of ESCO's Proposal

When the ESCO has completed its energy audit, it will prepare a technical and financial proposal to the PHA/IHA which become a part of the performance contract when approved by the PHA/IHA. The ESCO's proposal will contain the list of ECMs the ESCO proposes to install plus financial cost schedules for those ECMs over the proposed contract period.

The content of the proposal should include the following schedules:

1. Project description—buildings, equipment, ECMs proposed;
2. Energy savings guarantee;
3. ESCO's compensation and scheduled service and maintenance procedures and responsibilities;
4. Projected financial performance;
5. Savings calculation formula;
6. Construction and equipment schedule;
7. Standards of comfort;
8. Client operations and maintenance responsibilities; and
9. Baseline energy consumption (including method of determination).

The ECMs proposed may or may not include all the ECMs the PHA/IHA wishes to include in the project. Therefore, there could be further negotiations between the ESCO and PHA/IHA on the ECMs to be included and the corresponding financial schedules. (The PHA/IHA should be aware that it may be prevented from installing any additional ECMs in which it may be interested during the contract period because adding more ECMs would alter the energy savings actually observed.)

The length of the contract period is one of the most important issues to be negotiated. The maximum contract period allowed by the 1987 HCD Act is twelve years, beginning with the completion of project. However, PHAs/IHAs should be cautioned about approving contract periods over ten years because there can be situations when the initial contract period must be extended to allow more time to pay for equipment costs. This situation can result if energy cost savings fall short of energy savings projected by the ESCO.

The form of the energy savings guarantee is also a key issue in a performance contract. The PHA/IHA should analyze the ESCO's proposed guarantee of savings and check the basis of the warranties offered.

If the PHA/IHA and ESCO do not reach agreement on the ESCO's proposal, the negotiation with the ESCO may have to be terminated. Such a result would not be desirable because of the time and effort invested by both parties. However, the PHA/IHA should not feel obligated to enter into a contract that it feels is not in its best interests.

8.6 Approval of the Contract by HUD

When a performance contract is satisfactorily negotiated between a PHA/IHA and an ESCO, it should be submitted to the HUD field office for approval. HUD approval must be obtained before formal signing of the contract occurs. In order to expedite HUD's approval at this last stage of the contract negotiation, the PHA/IHA should have submitted information on the project to the HUD field office as various stages of negotiation. (See Section 6.2.2 for HUD approval requirements.)

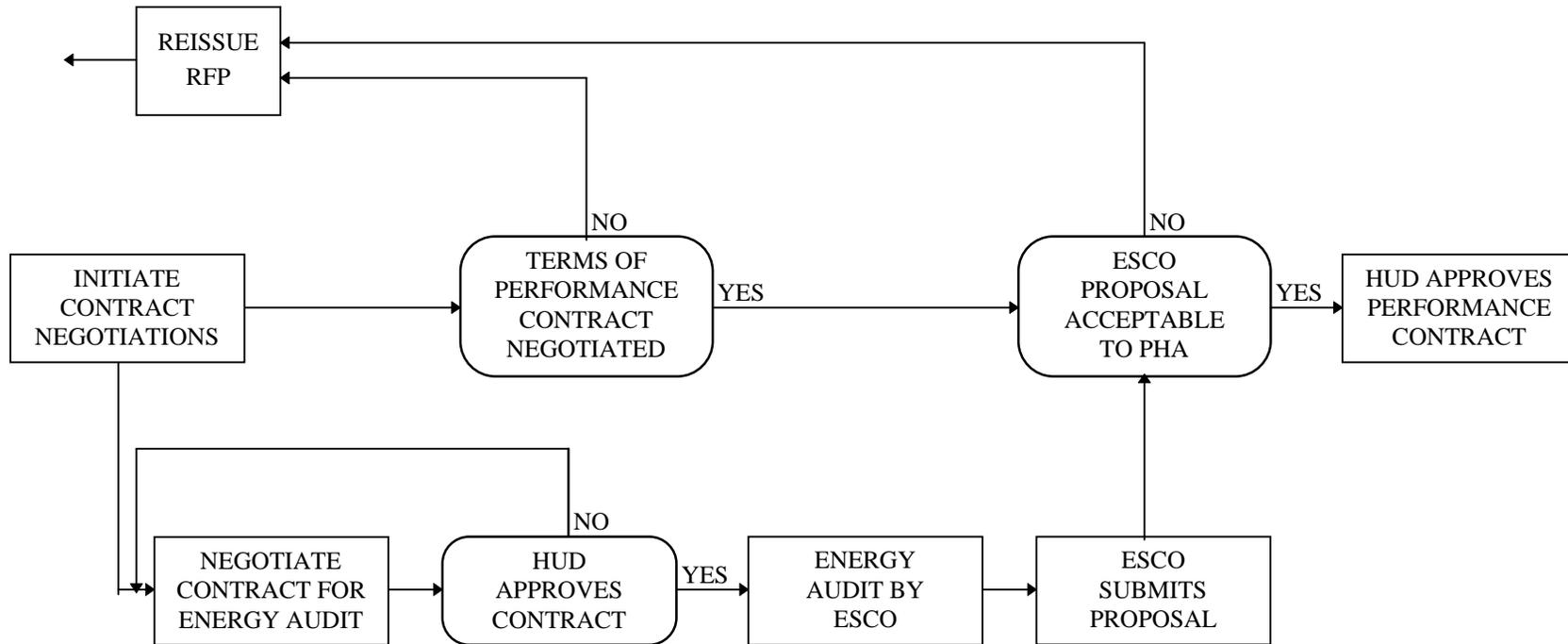


Fig. 8.1. Negotiation of performance contract after contractor selection.

CHAPTER 9. PROJECT MONITORING

This chapter discusses several areas where the staff of the PHA/IHA would be involved with an energy conservation project after an ESCO begins equipment installation under a performance contract.

9.1 Equipment Installation

Installation of the new equipment supplied under a performance contract will be the responsibility of the ESCO and its subcontractors. However, the PHA/IHA will want to be familiar with the design, and monitor the equipment installation as it progresses. It will also be necessary to provide coordination between the ESCO's activities and other operations of the PHA/IHA facilities. These responsibilities should probably be assigned to the PHA/IHA facility engineer or operations supervisor of the buildings involved.

9.2 Staff Training and Maintenance

After the ESCO completes installing the new equipment and makes other modifications specified in the performance contract, it should provide training to the operations and maintenance personnel of the PHA/IHA as specified in the performance contract. Any acceptance tests of new equipment should be witnessed by a responsible representative of the PHA/IHA. The ESCO should also provide installation drawings, operating and maintenance instructions, and equipment manuals for the new equipment.

If the ESCO has full responsibility for operating the new equipment during the contract period of an energy services agreement, the PHA/IHA staff may not have to be trained until the end of the contract period. However, in most cases, the PHA/IHA personnel should be trained soon after the new equipment is installed so that they could be available during emergencies.

Maintenance responsibilities should be clearly understood between the ESCO and PHA/IHA, especially if new equipment is installed into an existing system.

9.3 Resident Education

One of the unique features of energy conservation initiatives in the 1987 HCD Act is that resident education on energy conservation is included in the activities funded by a performance contract. Additional PHA/IHA costs for resident education activities are an eligible expense, reimbursed from utility cost savings of the PHA/IHA.

The PHA/IHA staff would have to be involved with the ESCO in planning and carrying out any resident education activities. PHA/IHA personnel would serve as the liaison with representatives of the residents, and would provide announcements of meetings or equipment demonstrations for residents.

9.4 Utility Consumption—Comparison with Predicted Use

The incentive for using a performance contract is to finance energy conservation improvements from utility cost savings over the contract period. Monthly payments to an ESCO are normally made on the basis of the reduction in utility costs from projections of utility costs with no energy conservation improvements (so-called "baseline" utility costs).

Baseline monthly utility use and a billing procedure between the ESCO and the PHA/IHA would be part of the performance contract conditions. Therefore, it is in the interest of the PHA/IHA to make sure that meter data used for billing utility costs are recorded accurately and that the billing procedure is followed correctly.

A final factor in the utility billing procedure is the use of monthly Heating Degree Days (HDDs) to adjust the baseline heating energy utility costs for the weather actually occurring. Baseline monthly utility use for heating energy would be adjusted by the factor $(\text{Actual monthly HDDs})/(\text{Baseline monthly HDDs})$. Agreement between the PHA/IHA and the ESCO would have to be reached on the source of outdoor temperatures to be used for "actual HDDs." The ESCO may have instrumentation installed locally to monitor outdoor temperature in the vicinity of the project. Such temperature data would usually be more accurate than National Oceanic and Atmospheric Administration (NOAA) HDD data for the area.

REFERENCES

Chapter 2

1. Performance Funding System: Energy Conservation Savings, 24 CFR Part 990, pp.46356-46363, September 11, 1991.
2. PERFORMANCE FUNDING SYSTEM—Program Participants and Departmental Staff, Handbook 7475.13 REV, U. S. Department of Housing and Urban Development, Office of Public and Indian Housing. February 1990.

Chapter 4

1. U.S. Department of Housing and Urban Development. Making Rental Housing Energy Efficient—Guide to Performing Energy Retrofit During Multi-family Rehabilitation. HUD-CPD-1269. October 1990.
2. U.S. Department of Housing and Urban Development. Energy Conservation, A Workbook. HUD-PDR-700(3). December 1982.
3. U.S. Department of Energy. Architect's and Engineer's Guide to Energy Conservation in Existing Buildings, Vols 1 and 2. DOE/RL/0183OP-H4. April 1990.
4. New York State Energy Office. Multi-family Housing Energy Conservation Workbook. 1980.
5. C. A. Goldman, K. A. Greely, and J. P. Harris. Retrofit Experience in U. S. Multi-family Buildings: Energy Savings, Costs, and Economics. Vol. 1. LBL-25248. May 1988.
6. Specification and Cost Manual for Energy Retrofits on Small Commercial and Multi-family Buildings. SERI SP-253-2373 (DE 84012753). July 1984.
7. J. L. Nichol and T. K. Stovall. Cost-Effectiveness of Single and Multiple CACS Retrofit Actions in Multi-family Apartment Buildings. ORNL/CON-191. March 1986.

Other Related HUD Publications

(Available through HUD-User)

1. How to Save Money on Monthly Gas Utility Bills for Public Housing Agencies: A Simple Step-by-Step Procedure, ACCN-5435, 1989.
2. Life-Cycle Cost Analysis for Utility Combinations, ACCN-5432, (Computer Package), 1989.
3. Utility Accounting Package, ACCN-5390, (Computer Package), 1988.

APPENDIX A

FINAL RULE—PERFORMANCE FUNDING SYSTEM:
ENERGY CONSERVATION SAVINGS

DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT

Office of the Assistant Secretary for Public and Indian Housing

24 CFR Parts 905 and 990

[Docket No. R-92-1453; FR-2504-0-03]

Performance Funding System: Energy Conservation Savings, Audit Responsibilities, Miscellaneous Revisions; Announcement of OMB Approval Numbers and Correction

AGENCY: Office of the Assistant Secretary for Public and Indian Housing, HUD.

ACTION: Final rule; Announcement of OMB approval numbers and correction.

SUMMARY: On September 11, 1991 (56 FR 46356), the Department published in the Federal Register, a final rule that implemented provisions of section 118 of the Housing and Community Development Act of 1987 that required several modifications of the Performance Funding System (PFS) of calculating operating subsidy eligibility of Public Housing Agencies and Indian Housing Authorities (collectively called PHAs) operating public housing and Indian housing rental projects.

The effective date section of the September 11 rule indicated that the rule would become effective after the Office of Management and Budget approved the information collections contained in §§ 990.107(c)(4) and (g), 990.108(e), 990.110 (c)(1)(i), (e) and (f), and the corresponding sections of 24 CFR part 905, and after a separate Notice of that fact had been published in the Federal Register. It also indicated that the first date the rule was expected to take effect was January 1, 1992.

The purpose of this document is to announce the effective date of the final rule published September 11, 1991 (56 FR 46356) and the OMB approval number for sections that contained information collection requirements. This document will also correct an erroneous reference contained in § 990.107(g)(2).

EFFECTIVE DATE: January 1, 1992.

FOR FURTHER INFORMATION CONTACT: John Comerford, Director, Financial Management Division, Office of Public Housing,

Department of Housing and Urban Development, 451 Seventh Street SW., Washington, DC 20410, telephone (202) 708-1872. A telecommunications device for hearing or speech-impaired persons is available at (202) 245-0850. (These are not toll-free telephone numbers.)

SUPPLEMENTARY INFORMATION:

Paperwork Reduction Act

The information collection requirements contained in the regulatory sections listed below have been approved by the Office of Management and Budget under the provisions of the Paperwork Reduction Act of 1980 (Pub. L. 96-511) and assigned OMB control number 2577-0125.

List of Subjects

24 CFR Part 905

Grant programs—Indians, Low and moderate income housing, Aged, Grant programs—Housing and community development, Handicapped, Indians, Loan programs—Housing and community development, Loan programs—Indians, Public housing, Reporting and recordkeeping requirements.

24 CFR Part 990

Grant programs—Housing and community development, Public housing, Reporting and recordkeeping requirements.

Text of the Amendment

Accordingly, parts 905 and 990 of title 24 of the Code of Federal Regulations is amended as follows:

PART 905—INDIAN HOUSING PROGRAMS

1. The authority citation for part 905 continues to read as follows:

Authority: Secs. 201, 202, 203, 205, United States Housing Act of 1937, as added by the Indian Housing Act of 1988 (Pub. L. 100-358) (42 U.S.C. 1437aa, 1437bb, 1437cc, 1437ee); sec. 7(b), Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

§§ 905.715, 905.720 and 905.730 [Amended]

2. Sections 905.715, 905.720, and 905.730 are amended by revising the sentence at the end of each section to read as follows:

(Approved by the Office of Management and Budget under OMB control numbers 2577-0029 and 2577-0125)

PART 990—ANNUAL CONTRIBUTIONS FOR OPERATING SUBSIDY

3. The authority citation for part 990 continues to read as follows:

Authority: Sec. 9, United States Housing Act of 1937 (42 U.S.C. 1437g); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

§ 990.107 [Amended]

4. In § 990.107, paragraph (g)(2) is amended by correcting the reference at the end of the paragraph from “§ 990.110(f)” to read “§ 990.110(e)”, and by revising the sentence at the end of the section, to read as follows:

(Approved by the Office of Management and Budget under OMB control number 2577-0125)

§ 990.108 [Amended]

5. Section 990.108 is amended by adding at the end of the section the following sentence:

(Approved by the Office of Management and Budget under OMB control number 2577-0125.)

§ 990.110 [Amended]

6. Section 990.110 is amended by revising the sentence at the end of the section to read as follows:

(Approved by the Office of Management and Budget under OMB control numbers 2577-0026, 2577-0029, 2577-0071, and 2577-0125.)

Dated: January 16, 1992.

Grady J. Norris,
Assistant General Counsel for Regulations
[FR Doc. 92-1580 Filed 1-22-92; 8:45 am]
BILLING CODE 4210-33-M

DEPARTMENT OF HOUSING AND
URBAN DEVELOPMENT

Office of the Assistant Secretary for Public
and Indian Housing

24 CFR Parts 905, 965 and 990

[Docket No. R-91-1453; FR-2504-F-02]

RIN 2577-AA71

Performance Funding System: Energy
Conservation Savings, Audit Responsibilities,
Miscellaneous Revisions

56 FR 46356 September 11, 1991

ACTION: Final rule.

SUMMARY: This rule implements provisions of section 118 of the Housing and Community Development Act of 1987 that require several modifications of the Performance Funding System (PFS) of calculating operating subsidy eligibility of Public Housing Agencies and Indian Housing Authorities (hereafter, collectively called PHAs) operating public housing and Indian housing rental projects. A proposed rule was published on this subject on December 19, 1989 (54 FR 52000).

The revisions to the PFS included in this final rule deal with:

- (1) Sharing of energy rate reductions;
- (2) Non-HUD financing of energy conservation measures;
- (3) Combining of units; and
- (4) Funding of audit costs.

The proposed rule on this subject covered another change to the PFS required by the statute: Establishing a formal review process for revision of allowable expense levels (AELs). The Department is still analyzing appropriate changes to that portion of the system and will issue a final rule on that subject separately. The proposed rule also included revisions to part 965 concerning what constitutes a financially sound and responsible insurance company. That subject too is being handled by a separate rulemaking.

EFFECTIVE DATE: This rule will become effective at the beginning of a PHA's first fiscal year that begins after the Office of Management and Budget has approved the information collections contained in this rule and a separate Notice of that fact has been published by the Department in the Federal Register. The first date on which this rule is expected to take effect is January 1, 1992. A

document announcing the effective date will be published at a later date.

FOR FURTHER INFORMATION

CONTACT: John Comerford, Director, Financial Management Division, Office of Public Housing, Department of Housing and Urban Development, 451 Seventh Street, SW., Washington, DC 20410, telephone (202) 708-1872. A telecommunications device for hearing or speech-impaired persons is available at (202) 245-0850. (These are not toll-free telephone numbers.)

SUPPLEMENTARY INFORMATION:

I. Paperwork Reduction Act Statement

The information collection requirements contained in §§ 990.107(c)(4) and (g), 990.108(e), 990.110(c)(1)(i), (e) and (f) of this rule (and the corresponding sections of part 905) were submitted to the Office of Management and Budget (OMB) for review under the Paperwork Reduction Act of 1980 and were approved under control number 2577-0125, which has expired. A new submission was made to obtain an extension of approval of these requirements. When these collections have been approved, a Notice will be published to that effect in the Federal Register. Until that time, no person may be subjected to a penalty for failure to comply with these information collection requirements.

II. Response to Comments

There were 16 public comments that were directed primarily to the energy savings issues contained in the proposed rule. The 15 commenters included three PHAs, one State agency, one public utility, two non-profit energy efficiency promotion organizations, and eight consultants or unclassified commenters.

A. Sharing of Energy Rate Reductions (Section 9(a)(3)(B)(i) of the 1937 Act)

Two comments objected to the limitation on retention of rate savings in § 990.110(c)(1)(i), authorized by section 9 of the United States Housing Act of 1937 (1937 Act), to that obtained by PHA action "beyond normal public participation in ratemaking proceedings". They indicated that PHA participation in ratemaking proceedings is beyond usual PHA activity, and therefore any such action should be recognized in the rate-based savings provisions. The language of the rule is intended to reward PHA action that results

in savings accruing directly to the PHA, as opposed to savings to a general class of commercial customers. The latter type of general rate reduction might result from the action of several participants in the proceedings, whereas a specific reduction applicable to the circumstances of the PHA can more easily be traced to the PHA's actions, and therefore be justifiably rewarded.

The comments also included recommendations that the incentive relating to utility rate savings be made retroactive. The Department agrees that implementation of the rate incentive provided in the Housing and Community Development Act of 1987 need not await publication of this final rule because the rate incentive was sufficiently clear on its face to be self-implementing. Consequently, the Department will make adjustments for the rate incentive effective for PHAs in their first fiscal year after enactment of the Act, which was signed into law on February 5, 1988 (i.e., fiscal years beginning on or after April 1, 1988).

The Department did permit PHAs/IHAs to avail themselves of the energy conservation incentives prior to publication of this final regulation. On March 17, 1989, interim procedures were issued in HUD Notice 89-12, to accomplish this end.

B. Incentives for Non-HUD Financing of Energy Conservation Measures (Section 9(a)(3)(B)(ii))

Commenters objected to what they viewed as language unduly restricting the type of financing mechanisms for energy conservation measures. The preamble of the proposed rule listed examples of non-HUD funded energy conservation measures as if they were the exclusive list of possibilities. Performance contracts, shared savings agreements and loans were mentioned, but grants were not. If a PHA received a grant for energy conservation purposes, the PHA would benefit from the existing energy savings provisions (§§ 905.730 and 990.110), which are unchanged in this rule.

The Department would also like to clarify that the two possible incentives are offered in the alternative. The PHA may either: Freeze its rolling base and retain 100 percent of the cost savings resulting from reductions in energy consumption during the term of the financing agreement; or obtain additional operating subsidy, continuing the use of the rolling base, and retaining the right to keep 50 percent of the consumption savings. To the extent that an energy-savings contract makes a PHA's payments dependent on a percentage of the energy cost savings

realized, the first incentive would apply. If the contract sets forth a fixed payment (e.g., a bank loan) that would be supported through additional operating subsidy, the second incentive would apply.

The first incentive of freezing the rolling base and permitting the PHA to retain all savings (§ 990.110(c)(2)(ii)), required that the savings be applied to payment of the contractor, then reimbursement of the PHA's direct costs related to the energy conservation measures, then retention of up to 30 percent of the savings for other eligible costs of the PHA, followed by prepayment of the amount due the contractor.

The proposed rule invited comment on whether the suggested 30 percent retainage by the PHA/IHA for discretionary purposes was adequate. Respondents recommended an increase to 50 percent as a more adequate number. The concern expressed was that the PHAs perceive the amount retained as a significant enough incentive to pursue energy conservation measures.

The Department is willing to accept this higher percentage but, in order to insure maintenance of the major thrust of these provisions, is restructuring the disposition of the total savings generated. The savings from the energy conservation measures proposed by the PHA must entail use of at least 50 percent of total savings as payment to the contractor or repayment of any contracted loan. Of the remaining 50 percent of the generated savings, the PHA is responsible for the payment of any of its directly related costs of the contract, with the balance to remain with the PHA for discretionary purposes. Among the discretionary purposes recognized is prepayment of the financing. (No contract will be approved that imposes a prepayment penalty on the PHA.)

The Department will be reviewing and approving PHA proposals. That review will evaluate the long-range effectiveness of the proposed improvements and the length of the proposed financing. The goal of this rule is to encourage PHAs to undertake coordinated energy improvements.

In the preamble to the proposed rule, the Department stated that a performance contract could provide that if energy savings in any year fell short of the amount needed to cover payment to the energy service contractor, the term could be extended automatically to the length necessary to amortize the remaining balance of the payments to the contractor, up to a maximum term of 12 years. The Department has reviewed this policy and determined that any such extension must be justified, based on a change in circumstances rather than a misperception of energy savings, and it must

be approved by HUD. The contract term would be extended only to accommodate payment to the contractor and associated direct costs.

The second incentive (in § 990.110(f)) is phrased in terms of a PHA's eligibility for additional operating subsidy. All actual payments of operating subsidy are limited by the amount appropriated by Congress for that purpose, so eligibility for additional subsidy in a particular amount does not guarantee payment of additional subsidy in that full amount.

In connection with these incentives, the rule provides for computation of energy consumption levels with adjustments for Heating Degree Days. A number of respondents urged that this computation include adjustments for Cooling Degree Days, to accommodate the costs of air conditioning. The Department is obliged to reject this recommendation at this time, because a change in the utility consumption formulae to take into account Cooling Degree Days amounts to a major reconfiguration of the structure of the Utilities Expense Level.

Although the Department intends to issue a rule to implement the change in the statute directing consideration of a Cooling Degree Day adjustment, this will require a separate rulemaking. The Department is considering various ways to integrate this adjustment into the PFS, to determine the best way.

The contract term was also the subject of comment. Several respondents urged use of contract periods longer than the 12-year maximum stated in the proposed rule. The 12-year maximum is a statutory limitation and cannot be changed in a rule. In establishing the contract term, the parties should be aware that, in approving a contract, HUD will assess its costs and benefits, weighing the amount of capital investment, the extent of savings, and the length of term and risk to the investor and to the PHA. HUD will look for arrangements that pay off the capital investment for the energy savings measures as rapidly as possible, consistent with providing incentives for private investment in PHA energy efficiency. It is anticipated that a PHA's annual payments to its contractor will be at least 50 percent of the anticipated annual gross savings, thereby defining the term of the contract as a function of the costs and the cost savings.

The preamble to the proposed rule invited public comment on the feasibility of various procurement methods for energy saving services or improvements, including the conditions under which non-competitive proposals would be appropriate.

Respondents consistently stressed that the procurement process should emphasize the importance of obtaining the greatest overall value in undertaking energy conservation measures, not on quick payback. The purchase of these services probably should not be based solely on price, but on other factors, as well. The procurement system applicable to these services is found at 24 CFR 85.36.

The Department has concluded that, in performance contracting, it is unlikely that proposers will develop specific energy conservation measures and projected savings in an initial bid. Therefore, selection among energy conservation proposers may be based to a great extent on the PHA's evaluation of the proposer's experience and qualifications, particularly their history of achieving promised long-term objectives.

Consequently, in response to the public comments, the regulation now requires that the competitive proposals method of procurement be used, in which factors other than price are considered, instead of the sealed bidding method. This determination is consistent with § 85.36(d)(3) for PHAs and § 905.175(d) for IHAs. The regulation also mandates that technical factors be given paramount importance over price in the evaluation process.

The Department anticipates that the only exception to the use of competitive proposals would be instances where the utility company or its exclusive contractor for such services is the only source available, in which case the noncompetitive proposals method could be used, pursuant to § 85.36(d)(4)(i)(A) for PHAs and § 905.175(e)(2) for IHAs.

The other methods of procurement available under § 85.36(d) and § 905.175, for small purchases and sealed bidding, are not feasible for this type of procurement. The small purchase method is inappropriate because of the complexity of the services to be contracted, and sealed bidding is not appropriate because of the need to evaluate factors other than price, such as the offerors' experience and qualifications.

To help ensure proper implementation of these contracts, review of energy performance solicitations and contracts by the HUD Regional Office (Office of Public Housing or Office of Indian Programs, for PHAs and IHAs, respectively) will be required. This review is authorized by § 85.36(g)(1) and § 905.160(a)(3)(ii) for solicitations, and by § 85.36(g)(2)(ii) for noncompetitive contracts. IHA contracts for a period of more than two years require HUD approval under § 905.160(a)(3)(iii)(A). The additional review for PHA contracts

using the competitive proposals method is necessary because of the complexity of the services being procured, the unusually long duration of the contracts (up to 12 years), the financing commitment that may be required, and the significant impact of the implementation of the energy savings on the operations of the PHA. It is expected that the HUD Regional Contracting Officer will be consulted during the review of energy performance solicitations and contracts to provide advice and guidance on procurement.

Commenters suggested that the rule make it clear that energy conservation measures would apply to all utilities, e.g., water, fuel oil, electricity, and gas. The rule has been revised to clarify this broad coverage.

Other comments recommended that a separate utility advocacy unit for PHAs/IHAs be established within HUD; that HUD prequalify contractors and provide a list of them; and that additional guidance be provided on implementation of these energy conservation measures. The Department rejects the first two of these suggestions as an inappropriate allocation of limited HUD staff. However, the Department plans to issue additional guidance.

C. Combining of Units (Section 9(a)(3)(B)(iv))

The reason for the change in the regulations, as was made clear in the statute, is to make sure that a PHA does not lose any PFS funds solely because of the need to consolidate two or more units into a single leasehold that can house the same number of people as were previously served.

The determination of "a unit that houses the same number of people as were previously served" will be based on a comparison of the bedroom count of project units before and after the conversion. We have determined that, in the absence of an objective method of comparing units, counting the number of people who happen to be in a unit before and after a conversion might be a way to determine the number of persons served. However, these counts could be distorted by vacancies, by situations where families are overcrowded or doubled-up, and by cases where families are temporarily assigned to larger than appropriate units. Therefore, the number of people served in a unit will be based on the formula $[(2 \times \text{No. of Bedrooms}) \text{ minus } 1]$, which yields the average number of people that would be served. An efficiency unit is assumed to serve one person and, therefore, will be treated the same as a one bedroom unit for purposes of this calculation.

The subsidy amount computed under this provision (§ 990.108(e)) will be added to the PHA's annual PFS eligibility amount, and it will continue to be calculated and added to the eligibility in future fiscal years.

Two large PHAs made explicit recommendations that this provision should be applied retroactively, to assure that PHAs would be fully funded for previously-combined units. The Department agrees that, as with the energy savings provision, this mechanism should have been in effect for PHA fiscal years beginning on or after April 1, 1988, the first full fiscal year after enactment of the Housing and Community Development Act of 1987, which was signed into law on February 5, 1988. Interim procedures were published in HUD Notice 89-48 (November 14, 1989) to accomplish this end.

D. Audit Responsibilities (Section 9(a)(1))

A question arose about whether a PHA would be "billed" by HUD for pre-audit accounting services necessary to restore the PHA's books to an auditable condition. The rule text is clear that if these services are necessary where HUD has ordered an audit, the cost will be paid by HUD and deducted from the PHA's operating subsidy. No change is needed in the rule.

Another question raised was whether HUD could fund restoration of a PHA's books to an auditable condition where HUD is not contracting for an audit, but where the PHA's accountant changes. The Department sees no justification for intervention in a PHA's financial management, except in the extreme case where action is prescribed by statute, and by the rule.

E. Miscellaneous

Although the proposed rule would have amended parts 965 and 990, this final rule contains revisions to part 905, but not part 965. As discussed above, the provisions concerning insurance that are in 965 have been split off into a separate rulemaking. Part 905 is included in this rule because between the time the proposed rule was published and this final rule was prepared, an interim rule was published (and became effective) that consolidated provisions from part 990 dealing with Indian Housing Authorities into a new and comprehensive part 905.

There were no public comments on the technical amendment to § 990.101 of the rule that removes an outdated provision that a PHA's eligibility for operating subsidy be conditioned on charging aggregate rentals in

any year of at least 20 percent of the sum of the monthly incomes of all the families. That amendment remains in this final rule without change.

III. Timing of Implementation

The PFS revisions of this rule will effect a particular PHA at the beginning of its new budget year after the rule is effective—a date expected to be well before January 1, 1992. Thus, each PHA is affected in the fiscal year that starts in Federal Fiscal Year 1992 (PHA fiscal years beginning on or after January 1992).

IV. Findings and Certifications

A. Environment

A Finding of No Significant Impact with respect to the environment has been made in accordance with HUD regulations at 24 CFR part 50 that implement section 102(2)(C) of the National Environmental Policy Act of 1969, 42 U.S.C. 4332. The Finding of No Significant Impact is available for public inspection and copying between 7:30 a.m. and 5:30 p.m. weekdays in the Office of the Rules Docket Clerk, room 10276, 451 Seventh Street, SW., Washington, DC 20410.

B. Executive Order 12291

This rule does not constitute a "major rule" as that term is defined in section 1(b) of Executive Order 12291 issued by the President on February 17, 1981, and therefore no regulatory impact analysis is necessary. At its estimated cost of \$3 million, it will not have an annual effect on the economy of \$100 million or more. Furthermore, it will not cause a major increase in cost or prices for consumers, individual industries, Federal, State, or local government agencies, or geographic regions, nor have a significant adverse effect on competition, employment, investment, productivity, innovation, or on the ability of United States-based enterprises to compete with foreign-based enterprises in domestic or export markets.

C. Regulatory Flexibility Act

Under the Regulatory Flexibility Act (5 U.S.C. 601), the Undersigned hereby certifies that this rule, as distinguished from the statute, would not have a significant economic impact on a substantial number of small entities. The rule would permit some modest increase in subsidy for PHAs that undertake certain energy saving measures.

The energy saving measures cost-sharing provisions would be unlikely to have any significant impact on small PHAs.

D. Executive Order 12612, Federalism

The General Counsel, as the Designated Official under section 6(a) of Executive Order 12612, Federalism, has determined that the policies contained in this rule would not have federalism implications and, thus, are not subject to review under the Order. The rule will provide for additional financial assistance or retained savings to HUD-assisted housing owned and operated by PHAs but will not interfere with State or local government functions.

E. Executive Order 12606, the Family

The General Counsel, as the Designated Official under Executive Order 12606, The Family, has determined that this rule does not have potential significant impact on family formation, maintenance, and general well-being, and, thus, is not subject to review under the Order. The rule involves the amount of funding that a PHA should receive under a formula revised to satisfy statutory requirements.

F. Regulatory Agenda

This rule is listed as sequence number 1406 under the Office of Public and Indian Housing in the Department's semiannual agenda of regulations published on April 22, 1991 (56 FR 17360, 17410), under Executive Order 12291 and the Regulatory Flexibility Act.

G. Catalog

The Catalog of Federal Domestic Assistance Program numbers for this rule are 14.145, 14.146, and 14.147.

H. Information Collection Requirements

As discussed above, the information collection requirements contained in this rule have been submitted to OMB for review under section 3504(h) of the Paperwork Reduction Act of 1980, and public comments on the public reporting burden were solicited.

I. List of Subjects in 24 CFR

Part 905

Grant programs: Indians, Low and moderate income housing; Homeownership; Public housing.

Part 965

Energy conservation; Loan programs: housing and community development; Public housing; Utilities.

Part 990

Grant programs: housing and community development; Low and moderate income housing; Public housing.

Accordingly, 24 CFR parts 905, 965 and 990 are amended as follows:

PART 905—INDIAN HOUSING PROGRAMS

1. The authority citation for part 905 continues to read as follows:

Authority: Secs. 201, 202, 203, 205, United States Housing Act of 1937, as added by the Indian Housing Act of 1988 (Pub. L. 100-358) (42 U.S.C. 1437aa, 1437bb, 1437cc, 1437ee); sec. 7(b), Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e(b)); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

2. In § 905.120, paragraph (g) is revised to read as follows:

§ 905.120 Compliance with other federal requirements.
* * * * *

(g) *Access to records; audits.* (1) HUD and the Comptroller General of the United States shall have access to all books, documents, papers, and other records that are pertinent to the activities carried out under this part, in order to make audit examinations, excerpts, and transcripts, in accordance with 24 CFR 85.42.

(2) IHAs that receive financial assistance under this part shall comply with the audit requirements in 24 CFR part 44. If an IHA has failed to submit an acceptable audit on a timely basis in accordance with that part, HUD may arrange for, and pay the costs of, the audit. In such circumstances, HUD may withhold, from assistance otherwise payable to the IHA under this part, amounts

sufficient to pay for the reasonable costs of conducting an acceptable audit, including, when appropriate, the reasonable costs of accounting services necessary to place the IHA's books and records into auditable condition. The costs to place the IHA's books and records into auditable condition do not generate additional subsidy eligibility under this part.
* * * * *

3. In § 905.715, paragraph (b) is redesignated as paragraph (b)(1) and a new paragraph (b)(2) is added; the introductory text of paragraph (c) is revised and a new paragraph (c)(4) is added; paragraph (f) is revised; and a new paragraph (g) is added, to read as follows:

§ 905.715 Computation of utilities expense level.
* * * * *

(b) *Utilities rates.* (1) * * *

(2) If an IHA takes action, such as the well-head purchase of natural gas, or administrative appeals or legal action, to reduce the rate it pays for utilities (including water, fuel oil, electricity, and gas), then the IHA will be permitted to retain part of the rate savings during the first 12 months that are attributable to its actions. See paragraph (f) of this section and § 905.730(c).

(c) *Computation of Allowable Utilities Consumption Level.* The Allowable Utilities Consumption Level (AUCL) used to compute the Utilities Expense Level of an IHA for the Requested Budget Year generally will be based on the availability of consumption data. For project utilities where consumption data are available for the entire Rolling Base Period, the computation will be in accordance with paragraph (c)(1) of this section. Where data are not available for the entire period, the computation will be in accordance with paragraph (c)(2) of this section, unless the project is a new project, in which case the computation will be in accordance with paragraph (c)(3) of this section. For a project where the IHA has taken special energy conservation measures that qualify for special treatment in accordance with paragraph (g)(1) of this section, the computation of the Allowable Utilities Consumption Level may be made in accordance with paragraph (c)(4). The AUCL for all of an IHA's projects is the sum of the amounts determined using all of these paragraphs, as appropriate.
* * * * *

(4) *Freezing the Allowable Utilities Consumption Level.* (i) Notwithstanding the provisions of paragraphs (c)(1) and (c)(2) of this section, if an IHA undertakes energy conservation measures that are approved by HUD under paragraph (g) of this section, the Allowable Utilities Consumption Level for the project and the utilities involved may be frozen during the contract period. Before the AUCL is frozen, it must be adjusted to reflect any energy savings resulting from the use of any HUD funding. The AUCL is then frozen at the level calculated for the year during which the conservation measures initially will be implemented, as determined in accordance with paragraph (g) of this section.

(ii) See § 905.730(c)(2)(ii) for the method of adjusting the AUCL for heating degree days.

(iii) If the AUCL is frozen during the contract period, the annual three-year rolling base procedures for computing the AUCL shall be reactivated after the IHA satisfies the conditions of the contract. The three years of consumption data to be used in calculating the AUCL after the end of the contract period will be as follows:

(A) *First year:* The energy consumption during the year before the year in which the contract ended and the energy consumption for each of the two years before installation of the energy conservation improvements;

(B) *Second year:* The energy consumption during the year the contract ended, energy consumption during the year before the contract ended, and energy consumption during the year before installation of the energy conservation improvements;

(C) *Third year:* The energy consumption during the year after the contract ended, energy consumption during the year the contract ended, and energy consumption during the year before the contract ended.
* * * * *

(f) *Adjustments.* IHAs shall request adjustments of Utilities Expense Levels in accordance with § 905.730(c), which requires an adjustment based upon a comparison between actual experience and estimates of consumption (after adjustment for heating degree days in accordance with paragraph (d) of this section) and of utility rates.

(g) *Incentives for energy conservation improvements.* If an IHA undertakes energy conservation measures (including measures to save water, fuel oil, electricity, and gas) that are financed by an entity other than the Secretary, such as physical improvements financed by a loan from a utility or governmental entity, management of costs under a performance contract, or a shared savings agreement with a private energy

service company, the IHA may qualify for one of two possible incentives under this part. For an IHA to qualify for these incentives, HUD approval must be obtained. Approval will be based upon a determination that payments under the contract can be funded from the reasonably anticipated energy cost savings, and the contract period does not exceed 12 years.

(1) If the contract allows the IHA's payments to be dependent on the cost savings it realizes, the IHA must use at least 50 percent of the cost savings to pay the contractor. With this type of contract, the IHA may take advantage of a frozen AUCL under paragraph (c)(4) of this section, and it may use the full amount of the cost savings, as described in § 905.730(c)(2)(ii).

(2) If the contract does not allow the IHA's payments to be dependent on the cost savings it realizes, then the AUCL will continue to be calculated in accordance with paragraphs (c)(1) through (c)(3) of this section, as appropriate; the IHA will be able to retain part of the cost savings, in accordance with § 905.730(c)(2)(i); and the IHA will qualify for additional operating subsidy eligibility (above the amount based on the allowable expense level) to cover the cost of amortizing the improvement loan during the term of the contract, in accordance with § 905.730(f).

4. In § 905.720, a new paragraph (e) is added, to read as follows:

§ 905.720 Other costs.
* * * * *

(e) *Costs resulting from combination of two or more units.* When an IHA redesigns or rehabilitates a project and combines two or more units into one larger unit and the combination of units results in a unit that houses at least the same number of people as were previously served, the AEL for the requested year shall be multiplied by the number of unit months not included in the requested year's unit months available as a result of these combinations that have occurred since the Base Year. The number of people served in a unit will be based on the formula ((2 x No. of Bedrooms) minus 1), which yields the average number of people that would be served. An efficiency unit will be counted as a one bedroom unit for purposes of this calculation.

5. In § 905.730, paragraph (a)(1) is amended by removing from the last sentence the words, "or \$10.31"; paragraphs (c)(1) through (4) are revised; paragraphs (c)(5) and (6) are removed; paragraph (e) is redesignated as paragraph (f); and a new paragraph (e) is added; to read as follows:

§ 905.730 Adjustments.
* * * * *

(c) *Adjustments to Utilities Expense Level.*
* * *

(1) *Rates.* (i) A decrease in the Utilities Expense Level because of decreased utility rates—to the extent funded by operating subsidy—will be deducted by HUD from future operating subsidy payments. However, where the rate reduction covering utilities, such as water, fuel oil, electricity, and gas, is directly attributable to action by the IHA, such as well-head purchase of natural gas, or administrative appeals or legal action (beyond normal public participation in ratemaking proceedings), 50 percent of the decrease will be retained by the IHA for the 12-month period following the decrease (and the other 50 percent will be deducted from operating subsidy otherwise payable).

(ii) An increase in the Utilities Expense Level because of increased utility rates—to the extent funded by operating subsidy—will be fully funded by residual receipts, if available during that fiscal year, or by increased operating subsidy, subject to availability of funds.

(2) *Consumption.* (i) Generally, 50 percent of any decrease in the Utilities Expense Level attributable to decreased consumption (adjusted for Heating Degree Days in accordance with § 905.715(d)), after adjustment for any utility rate change, will be retained by the IHA; 50 percent will be offset by HUD against subsequent payment of operating subsidy.

(ii) However, in the case of an IHA whose energy conservation measures have been approved by HUD as satisfying the requirements of § 905.715(g)(1), the IHA may retain 100 percent of the savings from decreased consumption after payment of the amount due the contractor until the term of the financing agreement is completed. The decreased consumption is to be determined using a heating degree day adjustment for space heating utilities and by adjusting for any utility rate changes. The heating degree day experience during the frozen rolling base period will be used instead of the degree days in the year being adjusted. The documentation on the degree days must be supplied by the IHA and is subject to HUD approval. The savings realized must be applied in the following order:

(A) Retention of up to 50 percent of the total savings from decreased consumption to cover training of IHA employees, counseling of tenants, IHA management of the cost reduction program and any other eligible costs; and

(B) Prepayment of the amount due the contractor under the contract.

(iii) An increase in the Utilities Expense Level attributable to increased consumption will be fully funded by residual receipts after provision for reserves, if available. If residual receipts are not available and the increase would result in a reduction of the operating reserve below the authorized maximum, then 50 percent of the amount will be funded by increased operating subsidy payments, subject to the availability of funds.

(3) *Emergency adjustments.* In emergency cases, where an IHA establishes to HUD's satisfaction that a severe financial crisis would result from a utility rate increase, an adjustment covering only the rate increase may be submitted to HUD at any time during the IHA's Current Budget Year. Unlike the adjustments mentioned in paragraphs (c)(1) and (c)(2) of this section, this adjustment shall be submitted to the HUD Field Office by revision of the original submission of the estimated Utility Expense Level for the fiscal year to be adjusted.

(4) *Documentation.* Supporting documentation substantiating the requested adjustments shall be retained by the IHA pending HUD audit.

* * * * *

(e) *Energy conservation financing.* If HUD has approved an energy conservation contract under § 905.715(g)(2), then the IHA is eligible for additional operating subsidy each year of the contract to amortize the cost of the energy conservation measures under the contract, subject to a maximum annual limit equal to the cost savings for that year (and a maximum contract period of 12 years).

(1) Each year, the energy cost savings would be determined as follows:

(i) The consumption level that would have been expected if the energy conservation measure had not been undertaken would be adjusted for the Heating Degree Days experience for the year, and for any change in utility rate.

(ii) The actual cost of energy (of the type affected by the energy conservation measure) after implementation of the energy conservation measure would be subtracted from the expected energy cost, to produce the energy cost savings for the year. (See also paragraph (c)(2)(ii) of this section for retention of consumption savings.)

(2) If the cost savings for any year during the contract period is less than the amount of operating subsidy to be made available under this paragraph (e) to pay for the energy conservation measure in that year,

the deficiency will be offset against the IHA's operating subsidy eligibility for the IHA's next fiscal year.

(3) If energy cost savings are less than the amount necessary to meet amortization payments specified in a contract, the contract term may be extended (up to the 12-year limit) if HUD determines that the shortfall is the result of changed circumstances rather than a miscalculation or misrepresentation of projected energy savings by the contractor or IHA. The contract term may only be extended to accommodate payment to the contractor and associated direct costs.

* * * * *

6. A new § 905.825 is added, to read as follows:

§ 905.825 Energy Performance Contracts.

(a) *Method of procurement.* Energy performance contracting shall be conducted using one of the following methods of procurement:

(1) Competitive proposals (see § 905.175(d)). In identifying the evaluation factors and their relative importance, as required by § 905.175(d)(1), the solicitation shall state that technical factors are significantly more important than price (of the energy audit); or

(2) If the services are available only from a single source, noncompetitive proposals (see § 905.175(e)(2)).

(b) *HUD review.* Solicitations for energy performance contracts shall be submitted to the HUD Office of Indian Programs for review and approval before issuance. Energy performance contracts shall be submitted to the Office of Indian Programs for review and approval before award.

7. A new § 905.827 is added, to read as follows:

§ 905.827 Funding.

(a) The cost of accomplishing cost-effective energy conservation measures, including the cost of performing energy audits, shall be funded from operating funds of the IHA to the extent feasible. When sufficient operating funds are not available for this purpose, such costs are eligible for inclusion in a modernization program, for funding from any available development funds in case of projects still in development or for other available funds that HUD may designate to be used for energy conservation.

(b) If an IHA finances energy conservation measures from sources other than CIAP or

operating reserves, such as on the basis of a promise to repay, HUD may agree to provide adjustments in its calculation of the IHA's operating subsidy eligibility under the PFS for the project and utility involved if the financing arrangement is cost-beneficial to HUD. To receive the benefit of this type of adjustment, an IHA's repayments may not exceed the cost of the energy saved as a result of the energy conservation measures during a period not to exceed 12 years. See § 905.730(e) of this chapter.

PART 965—PHA OWNED OR LEASED PROJECTS—MAINTENANCE AND OPERATION

8. In subpart C—Energy Audits and Energy Conservation Measures, § 965.307 is revised by designating the existing paragraph as paragraph (a), and adding a new paragraph (b), to read as follows:

§ 965.307 Funding.

* * * * *

(b) If a PHA finances energy conservation measures from sources other than CIAP or operating reserves, such as on the basis of a promise to repay, HUD may agree to provide adjustments in its calculation of the PHA's operating subsidy eligibility under the PFS for the project and utility involved if the financing arrangement is cost-beneficial to HUD. To receive the benefit of this type of adjustment, a PHA's repayments may not exceed the cost of the energy saved as a result of the energy conservation measures during a period not to exceed 12 years. See § 990.107(g) of this chapter.

9. A new § 965.315 is added, to read as follows:

§ 965.315 Energy Performance Contracts.

(a) *Method of procurement.* Energy performance contracting shall be conducted using one of the following methods of procurement:

(1) Competitive proposals (see § 85.36(d)(3)). In identifying the evaluation factors and their relative importance, as required by § 85.36(d)(3)(i), the solicitation shall state that technical factors are significantly more important than price (of the energy audit); or

(2) If the services are available only from a single source, noncompetitive proposals (see § 85.36(d)(4)(i)(A)).

(b) *HUD review.* Solicitations for energy performance contracts shall be submitted to the HUD Regional Office through the

appropriate HUD Field Office for review and approval before issuance. Energy performance contracts shall be submitted to the HUD Regional Office through the appropriate HUD Field Office for review and approval before award.

PART 990—ANNUAL CONTRIBUTIONS FOR OPERATING SUBSIDY

10. The authority citation for part 990 continues to read as follows:

Authority: Sec. 9, United States Housing Act of 1937 (42 U.S.C. 1437g); sec. 7(d), Department of Housing and Urban Development Act (42 U.S.C. 3535(d)).

§ 990.101 [Amended]

11. In § 990.101, paragraph (c)(4) is amended by removing the third sentence, and the parenthetical sentence that follows it.

12. In § 990.107, paragraph (b) is redesignated as paragraph (b)(1) and a new paragraph (b)(2) is added; the introductory text of paragraph (c) is revised and a new paragraph (c)(4) is added; paragraph (f) is revised; and a new paragraph (g) is added, to read as follows:

§ 990.107 Computation of utilities expense level.

* * * * *

(b) *Utilities rates.* (1) * * *

(2) If a PHA takes action, such as the well-head purchase of natural gas, or administrative appeals or legal action, to reduce the rate it pays for utilities (including water, fuel oil, electricity, and gas), then the PHA will be permitted to retain part of the rate savings during the first 12 months that are attributable to its actions. See paragraph (f) of this section and § 990.110(c).

(c) *Computation of Allowable Utilities Consumption Level.* The Allowable Utilities Consumption Level (AUCL) used to compute the Utilities Expense Level of PHA for the Requested Budget Year generally will be based on the availability of consumption data. For project utilities where consumption data are available for the entire Rolling Base Period, the computation will be in accordance with paragraph (c)(1) of this section. Where data are not available for the entire period, the computation will be in accordance with paragraph (c)(2) of this section, unless the project is a new project, in which case the computation will be in accordance with paragraph (c)(3) of this section. For a project where the PHA has

taken special energy conservation measures that qualify for special treatment in accordance with paragraph (g)(1) of this section, the computation of the Allowable Utilities Consumption Level may be made in accordance with paragraph (c)(4) of this section. The AUCL for all of a PHA's projects is the sum of the amounts determined using all of these subparagraphs, as appropriate.

* * * * *

(4) *Freezing the Allowable Utilities Consumption Level.*

(i) Notwithstanding the provisions of paragraphs (c)(1) and (c)(2) of this section, if a PHA undertakes energy conservation measures that are approved by HUD under paragraph (g) of this section, the Allowable Utilities Consumption Level for the project and the utilities involved may be frozen during the contract period. Before the AUCL is frozen, it must be adjusted to reflect any energy savings resulting from the use of any HUD funding. The AUCL is then frozen at the level calculated for the year during which the conservation measures initially will be implemented, as determined in accordance with paragraph (g) of this section.

(ii) See § 990.110(c)(2)(ii) for the method of adjusting the AUCL for heating degree days.

(iii) If the AUCL is frozen during the contract period, the annual three-year rolling base procedures for computing the AUCL shall be reactivated after the PHA satisfies the conditions of the contract. The three years of consumption data to be used in calculating the AUCL after the end of the contract period will be as follows:

(A) *First year:* The energy consumption during the year before the year in which the contract ended and the energy consumption for each of the two years before installation of the energy conservation improvements;

(B) *Second year:* The energy consumption during the year the contract ended, energy consumption during the year before the contract ended, and energy consumption during the year before installation of the energy conservation improvements;

(C) *Third year:* The energy consumption during the year after the contract ended, energy consumption during the year the contract ended, and energy consumption during the year before the contract ended.

* * * * *

(f) *Adjustments.* PHAs shall request adjustments of Utilities Expense Levels in accordance with § 990.110(c), which requires an adjustment based upon a comparison between actual experience and estimates of

consumption (after adjustment for heating degree days in accordance with paragraph (d) of this section) and of utility rates.

(g) *Incentives for energy conservation improvements.* If a PHA undertakes energy conservation measures (including those covering water, fuel oil, electricity, and gas) that are financed by an entity other than the Secretary, such as physical improvements financed by a loan from a utility or governmental entity, management of costs under a performance contract, or a shared savings agreement with a private energy service company, the PHA may qualify for one of the two possible incentives under this part. For a PHA to qualify for these incentives, HUD approval must be obtained. Approval will be based upon a determination that payments under the contract can be funded from the reasonably anticipated energy cost savings, and the contract period does not exceed 12 years.

(1) If the contract allows the PHA's payments to be dependent on the cost savings it realizes, the PHA must use at least 50 percent of the cost savings to pay the contractor. With this type of contract, the PHA may take advantage of a frozen AUCL under paragraph (c)(4) of this section, and it may use the full amount of the cost savings, as described in § 990.110(c)(2)(ii).

(2) If the contract does not allow the PHA's payments to be dependent on the cost savings it realizes, then the AUCL will continue to be calculated in accordance with paragraphs (c)(1) through (c)(3) of this section, as appropriate; the PHA will be able to retain part of the cost savings, in accordance with § 990.110(c)(2)(i); and the PHA will qualify for additional operating subsidy eligibility (above the amount based on the allowable expense level) to cover the cost of amortizing the improvement loan during the term of the contract, in accordance with § 990.110(f).

13. In § 990.108, a new paragraph (e) is added, to read as follows:

§ 990.108 Other costs.

* * * * *

(e) *Costs resulting from combination of two or more units.* When a PHA redesigns or rehabilitates a project and combines two or more units into one larger unit and the combination of units results in a unit that houses at least the same number of people as were previously served, the AEL for the requested year shall be multiplied by the number of unit months not included in the requested year's unit months available as a result of these combinations that have occurred since the Base Year. The number of people served in a unit will be based on the

formula $(2 \times \text{No. of Bedrooms}) \text{ minus } 1$, which yields the average number of people that would be served. An efficiency unit will be counted as a one bedroom unit for purposes of this calculation.

14. In § 990.110, paragraph (a)(1) is amended by removing from the last sentence the words, "or \$10.31"; paragraphs (c) (1) through (4) are revised; paragraphs (c) (5) and (6) are removed; paragraph (e) is redesignated as paragraph (f); and a new paragraph (e) is added; to read as follows:

§ 990.110 Adjustments.

* * * * *

(c) *Adjustments to Utilities Expense Level.*
* * *

(1) Rates. (i) A decrease in the Utilities Expense Level because of decreased utility rates—to the extent funded by operating subsidy—will be deducted by HUD from future operating subsidy payments. However, where the rate reduction covering utilities, such as water, fuel oil, electricity, and gas, is directly attributable to action by the PHA, such as the wellhead purchase of natural gas, or administrative appeals or legal action (beyond normal public participation in ratemaking proceedings), 50 percent of the decrease will be retained by the PHA for the 12-month period following the decrease (and the other 50 percent will be deducted from operating subsidy otherwise payable).

(ii) An increase in the Utilities Expense Level because of increased utility rates—to the extent funded by operating subsidy—will be fully funded by residual receipts, if available during that fiscal year, or by increased operating subsidy, subject to availability of funds.

(2) *Consumption.* (i) Generally, 50 percent of any decrease in the Utilities Expense Level attributable to decreased consumption (adjusted for Heating Degree Days in accordance with § 990.107(d)), after adjustment for any utility rate change, will be retained by the PHA; 50 percent will be offset by HUD against subsequent payment of operating subsidy.

(ii) However, in the case of a PHA whose energy conservation measures have been approved by HUD as satisfying the requirements of § 990.107(g)(1), the PHA may retain 100 percent of the savings from decreased consumption after payment of the amount due the contractor until the term of the financing agreement is completed. The decreased consumption is to be determined using a heating degree day adjustment for space heating utilities and by adjusting for

any utility rate changes. The heating degree day experience during the frozen rolling base period will be used instead of the degree days in the year being adjusted. The documentation on the degree days must be supplied by the PHA and is subject to HUD approval. The savings realized must be applied in the following order:

(A) Retention of up to 50 percent of the total savings from decreased consumption to cover training of PHA employees, counseling of tenants, PHA management of the cost reduction program and any other eligible costs; and

(B) Prepayment of the amount due the contractor under the contract.

(iii) An increase in the Utilities Expense Level attributable to increased consumption will be fully funded by residual receipts after provision for reserves, if available. If residual receipts are not available and the increase would result in a reduction of the operating reserve below the authorized maximum, then 50 percent of the amount will be funded by increased operating subsidy payment, subject to the availability of funds.

(3) *Emergency adjustments.* In emergency cases, where a PHA establishes to HUD's satisfaction that a severe financial crisis would result from a utility rate increase, an adjustment covering only the rate increase may be submitted to HUD at any time during the PHA's Current Budget Year. Unlike the adjustments mentioned in paragraphs (c)(1) and (c)(2) of this section, this adjustment shall be submitted to the HUD Field Office by revision of the original submission of the estimated Utility Expense Level for the fiscal year to be adjusted.

(4) *Documentation.* Supporting documentation substantiating the requested adjustments shall be retained by the PHA pending HUD audit.

* * * * *

(e) *Energy conservation financing.* If HUD has approved an energy conservation contract under § 990.107(g)(2), then the PHA is eligible for additional operating subsidy each year of the contract to amortize the cost of the energy conservation measures under the contract, subject to a maximum annual limit equal to the cost savings for that year (and a maximum contract period of 12 years).

(1) Each year, the energy cost savings would be determined as follows:

(i) The consumption level that would have been expected if the energy conservation measure has not been undertaken would be adjusted for the Heating Degree Days

experience for this year, and for any change in utility rate.

(ii) The actual cost of energy (of the type affected by the energy conservation measure) after implementation of the energy conservation measure would be subtracted from the expected energy cost, to produce the energy cost savings for the year. (See also paragraph (c)(2)(i) of this section for retention of consumption savings.)

(2) If the cost savings for any year during the contract period is less than the amount of operating subsidy to be made available under this paragraph (e) to pay for the energy conservation measure in that year, the deficiency will be offset against the PHA's operating subsidy eligibility for the PHA's next fiscal year.

(3) If energy cost savings are less than the amount necessary to meet amortization payments specified in a contract, the contract term may be extended (up to the 12-year limit) if HUD determines that the shortfall is the result of changed circumstances rather than a miscalculation or misrepresentation of projected energy savings by the contractor or PHA. The contract term may only be extended to accommodate payment to the contractor and associated direct costs.

* * * * *

15. Section 990.120 is revised to read as follows:

§ 990.120 Audit.

PHAs that receive financial assistance under this part shall comply with the audit requirements in 24 CFR part 44. If a PHA has failed to submit an acceptable audit on a timely basis in accordance with that part, HUD may arrange for, and pay the costs of, the audit. In such circumstances, HUD may withhold, from assistance otherwise payable to the PHA under this part, amounts sufficient to pay for the reasonable costs of conducting an acceptable audit, including, when appropriate, the reasonable costs of accounting services necessary to place the PHA's books and records into auditable condition. The costs to place the PHA's books and records into auditable condition do not generate additional subsidy eligibility under this part.

Dated: September 4, 1991.

Joseph G. Schiff,
Assistant Secretary for Public and Indian Housing.

[FR Doc. 91-21674 Filed 9-10-91; 8:45 am]
BILLING CODE 4210-33-M

APPENDIX B

SAMPLE REQUEST FOR PROPOSAL

REQUEST FOR PROPOSAL

ENERGY PERFORMANCE CONTRACTING PROGRAM

The _____ (hereinafter referred to as _____) is seeking specific qualifications from interested Energy Services Companies (ESCOs) that are capable of providing comprehensive energy management and energy-related capital improvement services.

_____ is interested in contracting for a full range of energy services and energy-related capital Improvements (financed through a performance-based contract, guaranteed savings or similar agreement at no initial capital cost to them). These services may include but are not limited to: an energy audit; the design, acquisition, installation, modification, maintenance and training in the operation of existing and new equipment, which will reduce energy consumption associated with the heating, ventilation and air conditioning system, the lighting system, building envelope, the domestic hot water system, and other energy using devices; as well as for savings which would not reduce consumption per se but are aimed at cost savings, such as fuel switching or demand reductions. Services requested also include the training of facility staff with respect to routine maintenance and operation of all improvements. Improvements must result in a guaranteed minimum energy savings with the ESCo payments linked to actual measured reductions in energy cost or consumption. No contract shall exceed () years in duration and is subject to annual appropriations. Annual cost savings derived from such improvements beyond the guaranteed minimum savings will be divided between _____ and the selected ESCo based on a formula to be agreed upon during final contract negotiations. The energy savings achieved by the installed projects need to be sufficient to cover all project costs including annual maintenance and monitoring fees for the duration of the contract term. At a minimum, the energy savings guarantee should be structured to correspond to the annual financing costs associated with the project.

DESCRIPTION OF THE PROCUREMENT PROCESS

It is anticipated that the process for the procurement of these energy services will proceed in three stages.

- 1.) SUBMISSION OF WRITTEN QUALIFICATIONS. _____ through its designated representatives will review and evaluate the written responses to this Request for Proposal (RFP) in accordance with the evaluation criteria identified in Attachment A. _____ will select no more than three qualified ESCOs to proceed to the competitive oral interview stage of the procurement process.
- 2.) ORAL INTERVIEW. Each of the three qualified firms will participate in a detailed oral interview to more fully discuss how their approach to this project satisfies the evaluation criteria set forth in Attachment A. ESCOs will be required to answer questions posed by the Project Evaluation Team. Each oral interview will be tape recorded and it will be the sole responsibility of the Project Evaluation Team to make the final selection of a Project Contractor based upon the evaluation of written responses to the RFP and oral responses received during the interview process. A more complete description of the interview format and logistical arrangements will be mailed to the three finalists.
- 3.) SELECTION OF ESCO TO DEVELOP CONTRACT. _____ will select the best qualified firm to conduct a complete technical analysis of the facility and propose contract terms concerning a complete set of proposed energy improvements, the timetable for completing engineering and construction work, a detailed description of services to be provided, specific financing arrangements and terms, and an estimate of energy savings, as well as special conditions offered by the company. _____ intends to negotiate a final contract for these services, which includes a minimum savings guarantee. If an acceptable contract cannot be reached within 90 days from the date of ESCo selection, negotiations with the second-ranked ESCo may be initiated. We recognize that detailed financial projections of project benefits are dependent upon the scope of technical retrofits finally selected and installed. It is premature to place a major

emphasis on projected financial benefits prior to the completion of a detailed engineering study and negotiation of the project structure. Respondents are encouraged to carefully review the evaluation criteria in the RFP under Financial Approach and to respond as fully as possible.

Site Visits

_____ will arrange walk-through inspection tours of their buildings upon _____ request, prior to the submission of qualifications. Site representatives will be available to answer questions about the operation of the buildings. All ESCos are encouraged to carefully evaluate the building profile data contained In the technical appendix and to visit the facility in order to enhance their understanding of existing building conditions and retrofit opportunities.

To make arrangements to tour _____, please contact:

TO AID COMPANIES IN THEIR RESPONSE TO THIS REQUEST THE FOLLOWING ITEMS ARE ATTACHED:

Attachment A: Evaluation Criteria
Attachment B: Project Schedule
Attachment C: Project Terms and Conditions
Attachment D: ESCo Profile Form
Attachment E: ESCo Qualifications and Approach to Project
Technical Appendix

ATTACHMENT A

Evaluation Criteria

The listed criteria will be used in the evaluation of the following: written submissions of ESCo Qualifications, interviews with previous ESCo clients, and the responses of ESCos during final selection interviews, as appropriate. (These are not ranked in order of importance.)

1. Project Management

- a. Clear assignment of responsibility for various project tasks to specific individuals. All individuals with major responsibility for the project's technical design, management, and negotiation should be present at the oral interview.
- b. Ability to manage construction, repairs, regular service, and emergencies effectively.
- c. Comprehensiveness of management, maintenance, and monitoring services provided by the contractor and the specific benefits to _____ of such services.
- d. Ability to complete all phases of the project on schedule.
- e. Responsiveness to the specific goals identified in the RFQ and technical appendices.
- f. Quality of communication skills of the ESCo's representatives at the oral interview.
- g. Ability to coordinate project construction with local utilities, subcontractors, equipment suppliers and facility personnel.
- h. Quality of provisions for training facility staff.

2. Technical Approach

- a. Understanding of the existing building conditions, systems, operations, and schedules.
- b. Qualifications of the technical design professionals.
- c. The number of past retrofit projects which include similar technical measures proposed for inclusion in this project and completed by the person(s) responsible for project technical design.
- d. Quality of a sample technical analysis for a similar type of facility completed by the person(s) responsible for project technical design.
- e. Reliability of equipment performance of ESCo's past retrofit projects.
- f. Documented energy savings of previous retrofit projects managed by the ESCo.
- g. Comprehensiveness of the technical approach to the project based on improvements likely to be included and the conceptual design creativity demonstrated during the oral interview.
- h. Typical baseline energy use calculation methodology.

- i. Approach to adapting control strategies, equipment, and maintenance practices in response to changes in utility rates, technology, and building conditions, in order to enhance project performance.

3. Financial Approach

- a. Financial soundness and stability of the ESCo.
- b. Demonstrated ability to provide or arrange project financing.
- c. Sample financing arrangement proposed for this project.
- d. Quality and clarity of the financial savings calculation methodology. Formula for the division of savings between _____ and the ESCo.
- e. Reconciliation accounting methods for adjusting windfalls/shortfalls in project cash flow.
- f. Completeness of most recent annual financial report.
- g. Clarity of sample project invoice.
- h. Terms of the guarantee of the projects' financial performance.

4. Legal Approach

- a. Quality of sample legal agreement.
- b. Contractual provisions to accommodate changes in building energy use (i.e., occupancy, schedule, etc.).
- c. Flexibility of legal agreement to accommodate needs of _____ .
- d. The quality of provisions for early termination of the contract at the initiative of either party.

THE ESTABLISHMENT, APPLICATION AND INTERPRETATION OF THE ABOVE CRITERIA SHALL BE SOLELY WITHIN THE DISCRETION OF _____.
_____ RESERVES THE RIGHT TO REJECT ANY AND ALL SUBMISSIONS.

Qualification of Contractors

Companies who wish to be qualified by _____ must submit an original and six (6) copies of Attachments D & F (the ESCo Profile Form and ESCo Qualifications and Approach to Project), by _____ to the following address:

All submissions become the property of _____ and will not be returned to the ESCo.

The highest-ranked firms will be notified by phone to schedule their appearance at the competitive oral interview which will be the final step of the selection process.

_____ RESERVES THE RIGHT TO REJECT ANY OR ALL SUBMISSIONS AND TO WAIVE INFORMALITIES AND MINOR IRREGULARITIES IN SUBMISSIONS RECEIVED AND TO ACCEPT ANY SUBMISSIONS IF DEEMED IN THE BEST INTEREST OF _____ TO DO SO.

ALL COSTS ASSOCIATED WITH SUBMISSION PREPARATION WILL BE BORNE BY THE SUBMITTING COMPANY.

ATTACHMENT B

Proposed Project Schedule

<u>Activity</u>	<u>Date</u>
Issue RFP	Week 1
Site Visit* (to be arranged)	Weeks 1-6
Qualifications Due	Week 7
Written Qualifications Reviewed and Evaluated (ESCO list shortened)	Weeks 7-13
Oral Interviews	Week 15
ESCO Recommended	Week 20
Approval of Selected ESCo	Week 21
Technical Audit, Project Analysis, Contract Negotiations	Weeks 21-34
Contract Presented and Signed	Week 35

*Site visits can be arranged by contacting:

ATTACHMENT C

Project Terms and Conditions

This section describes the minimum conditions _____ will accept from the selected ESCo(s). Part 1 defines the Scope of Services as they relate to the technical requirements to be included in the final contract. Part 2 defines the Key Contractual Provisions.

PART 1 - SCOPE OF SERVICES

a. TECHNICAL REQUIREMENTS

1. Technical Energy Analysis: The ESCo's proposed contract terms must include the performance and presentation of the results of a detailed technical energy audit of acceptable quality to _____. If _____ decides not to enter into a contract with the selected ESCo after the audit has been accepted, they agree to pay the fee indicated for their site as set forth in Attachment E, provided the proposed contract terms offered by the ESCo meet all the conditions set forth in this RFQ.
2. Specific standards of comfort will be defined and must be maintained throughout the term of the contract.
3. A registered professional engineer must, at a minimum, review and approve design work done under this contract.
4. _____ requires a minimum guaranteed savings approach to the project.
5. The ESCo will be required to work with current building management and maintenance personnel, to coordinate construction and provide appropriate training in operation of retrofits. No equipment shall be installed that will require the hiring of additional personnel by _____ unless contract negotiations produce an explicit exemption from this rule for a specific installation.
6. ESCo must provide mylar, reproducible "as built" and record drawings of all existing and modified conditions associated with the project, conforming to typical engineering standards. These should include architectural, mechanical, electrical, structural, and control drawings and operating manuals within 30 days of the completed installation.

PART 2 - CONTRACTUAL PROVISIONS

Key elements that must be provided for in any performance contract that _____ enters into will minimally include the following points:

1. The contents of the RFQ submissions become part of the final contract.
2. _____ retains final approval over the scope of work and end-use conditions
3. The ESCo must provide a final schedule of project milestones including equipment servicing provisions which will become part of the final contract. In the event any milestone or equipment servicing provision is not met as scheduled, without prior approval, _____ reserves the right to consider it as default and withdraw from all contractual obligations without penalty.
4. The ESCo must carry an appropriate level of insurance for both the construction and operations phases.
5. _____ must have access to inspect, test and approve both the work conducted in the facility, during construction and operations, and to the books, records, and other compilations of data which pertain to the performance of the provisions and requirements of this agreement. Records shall be kept on a generally recognized accounting basis, and calculations kept on file in legible form.
6. The ESCo will be responsible for maintaining the levels of comfort for each building as specified. Persistent failure to maintain the defined climate and lighting conditions will constitute a default.
7. (The ESCo must comply with the local prevailing wage rates as established by the Department of Labor. Current wage rates likely to be involved in this contract are attached.) Optional
8. All drawings, reports and materials prepared by the ESCo specifically in performance of the contract shall become the property of _____ and shall be delivered to them as needed or upon completion of construction.
9. All work completed under this contract must be in compliance with all building codes and appropriate accreditation, certification and licensing standards.
10. The contract must contain a mutually agreeable clause whereby unanticipated changes in occupancy or use can be accommodated in a fair manner for both parties.
11. At the time of contract expiration, _____ will have the option either to renegotiate the contract or terminate it without penalty.

ATTACHMENTS D & E

ESCO PROFILE FORM
ESCO'S QUALIFICATIONS AND APPROACH TO PROJECT

AN ORIGINAL AND SIX (6) COPIES OF ATTACHMENTS D & E MUST BE SENT TO:

It is only necessary to include three (3) copies of a sample technical analysis to _____ at the above address. The sample analysis should profile a similar building or project and be under separate cover.

Please label your submission as follows:

RE: Response to RFP - Energy Performance Contracting Program

FROM: (Firm Name) _____

(Address) _____

(State) _____ (Zip) _____

(Phone) _____

(Contact Person) _____

(Title) _____

ATTACHMENT D

ENERGY PERFORMANCE CONTRACTING PROGRAM

ESCO PROFILE FORM

1. Firm Name _____

Business Address _____

City _____ State _____

County _____ Zip Code _____

1a. Names and Titles of Two Contact People

1) _____ Phone () _____

2) _____ Phone () _____

1b. Submittal is for Parent Company Division

Subsidiary Branch Office

List any Division or Branch Offices which are to be included in the Prequalification Rating (attach separate list if more than one is to be included).

Name of Entity _____

Address _____

2. Date Prepared _____

3. Type of Firm Corporation

Partnership

Sole Ownership

Joint Venture

4. Federal Employer Identification Number _____

5. Year Firm was Established _____

6. Name and Address of Parent Company, if applicable.

7. Former Firm Name(s), if applicable.

8a. Please indicate if your firm is a recognized Minority Business Enterprise.

Yes No

8b. If yes, please indicate the appropriate category.

- American Indian Female-Owned
 Spanish Surname Black
 Asian-American Other

9. Five-year summary of contract values for energy related services (insert Index Number).

<u>Year</u>	<u>Index #</u>	<u>Index #</u>	<u>Range of Contract Values</u>
19__	_____	1	Less than \$100,000
		2	\$100,000 - \$250,000
19__	_____	3	\$250,000 - \$500,000
		4	\$500,000 - \$1 Million
19__	_____	5	\$1 Million - \$2 Million
		6	\$2 Million - \$5 Million
19__	_____	7	\$5 Million - \$10 Million
		8	\$10 Million or Greater
19__	_____		

NOTE: All questions must be addressed by the ESCo in order for this qualification form to be properly completed. Failure of the contractor to answer any question, or comply with any directive contained in this form may be used by as grounds to find them ineligible. If a question or directive does not pertain to your organization in any way, please indicate that fact with the symbol N/A. For additional space attach 8-1/2" x 11" sheets and indicate reference number (i.e., 12a, 12b, etc.) to correspond with each question.

10. CORPORATE BACKGROUND/HISTORICAL DATA

10a. How many years has your firm been in business under its present business name?

_____ Years

10b. Indicate all other names by which your organization has been known and the length of time known by each name.

10c. How many years has your firm been involved in energy-related business?

_____ Years

10d. Please identify all states in which your firm is legally qualified to do business.

11. PERSONNEL INFORMATION

11a. Please attach the resumes of the principal individuals who will be directly responsible for this project. Please indicate the specific qualifications of each individual and the role they will play for the duration of the contract. Clearly identify who will have the primary responsibility for the technical analysis and design of the project.

11b. Please give the number of years of design and construction experience for each of the above individuals and describe all supervisory responsibilities; please provide a list of all projects each individual has been associated with during the last five (5) years including type of project and \$ size.

11c. Please identify your firm's legal counsel for this project. Give the name and address of the primary individual responsible for contract negotiation.

12. FINANCIAL REFERENCES

12a. Please attach your firm's most recent annual report.

12b. Please attach the most recent year-ending Statement of Financial Conditions, including balance sheet and income statement, dated within twelve months of filing this ESCo Profile Form.

12c. Please provide the name, address, and the telephone number of firm(s) that prepared Financial Statements:

13. PROJECT HISTORY

On separate sheets of 8-1/2" x 11" paper please briefly describe all energy performance contracts or related projects which your firm has managed. Please put an asterisk by those project references involving buildings similar to the building(s) described in the technical appendices. Number each heading as follows:

- 13a. Project
- 13b. Location
- 13c. Project \$ Amount (installed project costs)
- 13d. Source of Funds
- 13e. Type of Contract (i.e., shared-savings, lease purchase, guaranteed savings)
- 13f. Owner
- 13g. Designer: Name(s) of primary technical design personnel
- 13h. Start and End Dates
- 13i. *Projected Annual Energy Savings (Therms, KWH, KW, Gallons)
- 13j. *Achieved Annual Energy Savings (Therms, KWH, KW, Gallons)
*(SEE ATTACHED FORM)
- 13k. ESCo Notes or Comments
- 13l. Please provide the names and telephone numbers of the owner(s)' representatives with whom you have done business on each of the projects listed in your summary.

DATA FORMAT FOR 13i. and 13j.

PROJECT: _____ **CONTACT PERSON:** _____

LOCATION: _____ **PHONE NUMBER:** _____

PROJECTED ANNUAL ENERGY SAVINGS	GUARANTEED LEVEL OF ENERGY SAVINGS	ACHIEVED ENERGY SAVINGS				
		YEAR 1	YEAR 2	YEAR #3	YEAR #4	YEAR #5
KWH	KWH					
THERMS	THERMS					
KW	KW					
GAL	GAL					

PLEASE COMPLETE THE INFORMATION FOR EACH OF THE HEADINGS LISTED ABOVE. DO NOT PROVIDE SAVINGS DATA IN TERMS OF BTU'S OR DOLLARS. DATA SHOULD BE GIVEN IN THE FORM OF FUEL UNITS WHICH APPEAR ON THE UTILITY BILLS. ADDITIONAL FORMS SHOULD BE REPRODUCED AS NEEDED.

14. AUTHORIZATION

14a. Dated at _____ this ____ day of _____ 19____.

Name of Organization:

By _____

Title _____

15. NOTARY STATEMENT

15a. Mr./Ms. _____ being duly sworn deposes and says that he/she is the
_____ of _____, Contractor(s), and that answers
to the foregoing questions and all statements therein contained are true and correct.

15b. Subscribed and sworn before me this ___ day of _____ 19____.

Notary Public _____

My Commission Expires _____ 19____.

ATTACHMENT E

ESCO'S QUALIFICATIONS AND APPROACH TO PROJECT

PLEASE PROVIDE ANSWERS TO EACH CATEGORY LISTED BELOW. PROVIDE YOUR RESPONSES ON 8-1/2' X 11' SHEETS OF PAPER AND NUMBER AND TITLE EACH ANSWER TO THE CORRESPONDING CATEGORY. ALL PAGES IN YOUR RESPONSE TO THIS ATTACHMENT SHOULD BE NUMBERED SEQUENTIALLY.

I. GENERAL APPROACH

1.0 - Project Summary (not to exceed 5 pages)

Please summarize the scope of services (design, financial, operations, maintenance, training, etc.) that would be offered by your firm for this project. Please include a brief description of your firm's approach to project management and the specific benefits to _____.

1.1 - Training Provisions

Please describe your firm's capabilities and experience in providing technical training for facility personnel on past projects.

1.2 - Design and Monitoring

Please describe your firm's approach to the technical design of this project and your provisions for ongoing monitoring of this project's performance.

1.3 - Cost of Audit

Please estimate the total cost of the audit to the, if no contract is negotiated.

1.4 - Calculation Methodology

Please describe in detail the methodology you normally use to compute baseline energy use.

1.5 - Adjustment in Baseline Methodology

Please describe the method or methods used to adjust the baseline due to such factors as weather and facility use changes.

1.6 - Procedure for Calculating Energy Savings

Please list all procedures, formulas and methodologies including any special metering or equipment, your firm will use to calculate energy savings.

1.7 - Methodology to Assign Dollar Value to Savings

Please describe the procedure to assign dollar values to the savings calculated in 1.6.

1.8 - Vendor Fee Calculation

Please describe your methods for calculating your firm's fees as a function of the project's energy saving performance.

1-9 - Savings Guarantee Calculations

Please describe your procedures and schedule for measuring the project's financial performance, and how the guarantee provisions work in the event that project results vary from the projections.

1.10 - Project Billing and Invoice

Please describe your firm's standard billing procedures and attach a sample project invoice.

1.11 - Provision of Financing

Please briefly describe the types of "innovative" financing arrangements provided by your firm for past retrofit projects.

1.12 - Equipment Ownership and Service Responsibility

Please describe the status of equipment ownership and service responsibility at contract expiration.

1.13 - Sample Contract

Please attach a sample contract offered by your firm.

II. SITE SPECIFIC APPROACH

2.0 - Technical Site Analysis

Based on your preliminary assessment of the information provided, please describe any equipment modifications, installations or replacements at the facility that your company would consider installing as a part of this project.

2.1 - Operation and Maintenance

Please describe any major changes in operation or maintenance for the facility that your company foresees based on the information provided.

2.2 - Project Financing

Please describe your firm's preferred approach to providing or arranging financing for this project and any special conditions associated with this method.

2.3 - Sample Audit

PLEASE INCLUDE, UNDER SEPARATE COVER, 3 COPIES OF A SAMPLE AUDIT CONDUCTED BY YOUR FIRM FOR A SIMILAR PROJECT. CLEARLY MARK RFP AUDIT ON THE OUTSIDE OF THE ENVELOPE. (See Instructions) This audit must include detailed energy and economic calculations.

APPENDIX C

SAMPLE TECHNICAL SECTION
OF THE
REQUEST FOR PROPOSAL

INSTRUCTIONS FOR PREPARATION
OF THE
TECHNICAL SECTION
OF THE
REQUEST FOR PROPOSAL

OVERVIEW

Vendors need a description of your facilities to evaluate the opportunity for a successful energy performance contract. It is impractical to supply every technical detail available, in the RFP. We suggest you be prepared to respond to requests for additional data from individual vendors. The RFP will contain a brief description of your facilities and a list of any energy retrofit projects you want vendors to investigate. You should also be prepared to provide the data in Section VII upon request by individual vendors.

SECTION I: GENERAL FACILITY DATA

1. Name of Building _____
2. Address of Building _____
3. Primary Use _____
4. Building Operator _____ Phone _____
5. Building Engineer _____ Phone: _____
6. Building Manager _____ Phone: _____
7. Year constructed _____ Year of last major structural modification _____
8. Briefly describe any major changes made during the last four years which affected annual building energy use by 2% or more. What was done? What were the effects on energy use?

9. Describe any major change planned to occur during the next five years which could affect annual energy use by 2% or more. What changes? Anticipated effects?

SECTION II: OPERATING DATA

1. Describe the operating hours of your major HVAC and lighting systems by hour and day of the week. Also include an annual holiday schedule during which major reductions in the operation of lighting and HVAC systems are made. If substantial zones of the building have differing hours of operation or large variations in occupancy, please describe the use of these zones.
2. What are the general summer and winter temperature setpoints for your building? If you do night setback, what is your target temperature? Please describe any zones with special temperature, humidity or ventilation requirements.
3. If you have an operating EMS controlling your building, please list the manufacturer, year installed, # of points, control functions it performs, and who is responsible for system operation.
4. Describe the manufacturer(s), age, type, and condition of the existing control system(s) in the building.

SECTION III: PHYSICAL DATA

1. Give the total square footage of conditioned space. If the total areas which are heated and cooled differ in size, please describe their respective sizes.
2. Briefly describe the predominant wall and roof construction. Also describe the type and condition of existing windows.

SECTION IV: ENERGY AND WATER CONSUMPTION DATA

1. Use the attached tables to summarize utility consumption and costs over the last three years. If you are buying contract gas give your monthly price history if available on a separate sheet for your cost of gas. Please attach copies of utility rate schedules which apply to your building.

SECTION V: ENERGY SYSTEMS DATA

1. Briefly describe the major type(s) of HVAC system(s) serving your building (e.g., terminal reheat, multizone, dual duct, variable air volume, induction, fan coil, heat pump, air exhaust, radiation). List the main fuels used to drive the heating and cooling systems.

2. Estimate the percentage of total area lighted by high efficiency fluorescent ballasts and bulbs, standard fluorescent ballasts and bulbs, and incandescent bulbs. Estimate the annual hours of operation for each type of lighting. If you have a significant amount of HID lighting, please describe it in similar terms.
3. Briefly describe any laundry or food facilities which use more than 2% of your annual energy consumption. If you operate a kitchen, how many meals do you serve per year?
4. Briefly describe any major labs or medical equipment which uses more than 2% of your annual energy use.
5. Describe your domestic hot water heating, distribution, and control system(s).
6. Please describe any other energy consuming equipment or facilities which use more than 2% of your annual energy use (e.g., incinerator, pool, etc.).

SECTION VI: IMPROVEMENT OPPORTUNITIES

1. Briefly describe any serious equipment, operating, or comfort problems in your building(s). Identify any major mechanical or electrical systems scheduled for replacement during the next five years.
2. Briefly list any major energy conservation options identified by a previous analysis of your building.
3. Please describe any building improvements that you would like to investigate during this project.

SECTION VII: ADDITIONAL SITE DATA PROVIDED UPON VENDOR REQUEST (IF AVAILABLE)

1. Actual copies of the last three years of utility bills for the building.
2. A more detailed schedule of major mechanical equipment including: age, manufacturer, size, capacity, hours of operation, and areas served.
3. Copies of previous technical analysis or audits of energy conservation options in your building.
4. Detailed documentation related to your energy management system.

APPENDIX D

SAMPLE EVALUATION FORMS
FOR RANKING CONTRACTOR RESPONSES
TO REQUEST FOR PROPOSALS

INSTRUCTIONS FOR THE USE OF PERFORMANCE CONTRACTING QUALIFICATIONS EVALUATION FORMS

Instructions for Ranking Written Submissions

Before you rank any of the written submissions, please briefly read through all of them to give you a sense of the variations in ESCo qualifications. Fill in the name of the ESCo on the form and your name on the lines provided. Please note the date by which this form must be returned to _____.

In ranking written qualifications, remember that you are comparing the ESCos to each other, not to some abstract standard. Where there is insufficient information or poor quality responses to questions asked in the RFP, you should mark the NOT ACCEPTABLE category. If you have insufficient personal knowledge to rank the ESCo on some specific criteria, please mark the UNABLE TO RANK category. The distinction between these two categories is extremely important to remember as you conduct your evaluation. Please include any written comments which constitute a basis for your ranking, as appropriate.

Instructions for Client Reference Interviews

A written script to introduce yourself to the client reference is provided with the ranking forms. It is essential that you explain the ranking scale to the client reference and request them to use these rankings in response to the questions you ask. It is important to record their responses accurately and avoid making any subjective interpretations of their experience. Remember to make it clear that if he has insufficient knowledge to respond, we would prefer the response of “UNABLE TO RANK” over a guess. The written questions are numbered in the same sequence as the criteria on your ranking form. Be sure to make written notes of pertinent comments about the ESCo’s performance. Please fill in all the information in the heading of the form on the lines provided before calling the reference, any corrections or “holes” in the information should be filled in during the interview. Please note the date by which this form must be returned to _____.

Instructions for Oral Interview Evaluation Forms

You will have the opportunity to rank each ESCo immediately following their interview. After you have interviewed all the vendors and had the opportunity to discuss your perceptions with other members of the evaluation group, you will have a chance to re-rank vendors by drawing on the broader data base. Please mark your re-ranking of vendors in red ink. While the oral interview is in process, be sure to note your questions and comments in writing if you don’t have an immediate chance to share them. At one of the breaks, evaluation group members will review comments and questions and deal with them in the remaining interview time. Be sure to fill in your name and the vendors name on the lines provided on the form.

RANKING FORM FOR EVALUATING
WRITTEN CONTRACTOR QUALIFICATIONS

YOUR NAME _____ CONTRACTOR NAME _____

YOUR FACILITY _____ DATE _____

EXPERIENCE

1. Level of past experience with similar projects.

___ Superior	Very	___ Acceptable	___ Acceptable	Not	___ Acceptable	___ Unable
						To Rank

Discussion: _____

Instructions: Use the above scale and format (unless otherwise indicated) to rate and explain the rating for each factor listed below:

- 2. Quality of key personnel qualifications as listed on resume.
- 3. Ability to achieve energy savings on past projects.
- 4. Amount of experience arranging project financing.

MANAGEMENT

- 5. Quality of the project summary.
- 6. Quality of sample training description.
- 7. Attractiveness of sample contract.

TECHNICAL

- 8. Quality of the sample audit submitted.
- 9. Accuracy and clarity of methods for measuring energy savings.
- 10. Quality of preliminary technical retrofits proposed.

FINANCIAL

11. Financial soundness of the contractor.
12. Estimated audit costs.
 Reasonable Too High Too Low Unable to Rank
13. Attractiveness of the proposed vendor's fee calculation method.
14. Accuracy and clarity of methods for determining the value of energy savings.
15. Attractiveness of proposed savings guarantee.

CLIENT REFERENCE INTERVIEW PROMPTS

THE FOLLOWING INTERVIEW PROMPTS ARE PROVIDED TO ASSIST YOU IN OBTAINING INFORMATION FROM CLIENT REFERENCES. THESE PROMPTS FOLLOW THE SAME SEQUENCE AS THE CLIENT REFERENCE EVALUATION FORM. THEY ARE PROVIDED TO ADD CLARITY TO THE INTERVIEW PROCESS.

1. Are you satisfied with the energy savings achieved so far?
2. Did the contractor provide acceptable financing for the project in a timely manner?
3. Are you satisfied with the frequency and clarity of communications with your contractor?
4. Has your contractor been responsive and cooperative to any requests or problems you've had with regard to the project?
5. Were you satisfied with the contractor's coordination of construction scheduling with your building staff?
6. Was the contractor able to complete the project on schedule?
7. Were you satisfied with the quality of training for facility staff provided by the contractor?
8. Do you feel the contractor has a thorough understanding of your facility's systems and operations?
9. Did the contractor install a wide range of retrofits?
10. Is the equipment installed by the contractor performing reliably?
11. Are you satisfied with the maintenance and/or monitoring services provided by this contractor?
12. Are you satisfied with the contractor's method of measuring energy savings?

ORAL INTERVIEW
INSTRUCTIONS FOR CONTRACTORS

Dear X:

The oral format has been chosen to preserve the integrity of each contractor's specific technical proposal. It is anticipated that this competitive format will encourage contractors to fully disclose their unique solutions for the facility. You should be prepared to present an estimate of the range of energy and demand savings available in the facility and the basis for your estimates. Contractors are also asked to estimate the range of gross annual utility cost savings available in the facility and the basis for their estimates.

Logistics

Oral presentations/interviews will be held on _____ and _____, 199__ in the conference room at _____
_____. The exact time of your presentation has been sent to you under separate cover. Should questions still exist as to what time your session is, please contact _____ at () _____.

Please inform _____ by 5:00 P.M. _____, 199__ if you will have any special requirements regarding presentation media. For example, slide projectors, overhead projectors, screens, movie or video tape machines, easels, etc. Also, please let us know the expected number of people in your party so that we will have enough chairs and refreshments can be provided.

Interview Format

General Interview Segment (2 Hours)

Introductions:

Companies will be limited to no more than a 30 minute presentation of their qualifications and approach to the proposed project which should include: design, construction, financing, training, O&M services, performance monitoring and performance enhancement. A detailed description of the responsibilities assigned to each member of your project team over the life of the project is requested. (THE 30 MINUTE TIME LIMIT WILL BE ENFORCED)

The remaining 1 1/2 hours of this segment will be used to ask specific questions which will include but not be limited to the topics outlined below. You will be asked to respond to questions posed by the project team during this portion of the interview process. You will not be required to prepare formal response in advance.

Interview Topics:

1. Accuracy of predicted performance on past projects installed or managed by your firm. Ability to complete construction on schedule.
2. Methodology you use to calculate project savings, measure performance, and assign dollar values to savings over the term of the contract. Method of project invoicing.
3. Proposed arrangements for equipment service and maintenance provisions over the contract term.
4. Terms of the guarantee offered to ensure the project's financial performance.

5. Your firm's preferred approach to project financing.
6. Key provisions and flexibility of legal agreement submitted.

Site Specific Segment (1 Hour Limit)

This segment will focus on your firm's technical approach to improving the energy efficiency and reducing energy costs at the Facility. In lieu of a formal presentation, you will be asked to respond to specific questions which will include but not be limited to the following topics:

1. Technical measures likely to be included in a contract, measures that merit more study, and measures previously proposed which seem likely to be rejected.
2. Site specific operational and maintenance changes proposed.
3. Estimated range of energy and demand savings available and the basis for those estimates.
4. Estimated range of gross annual utility cost savings available and the basis for those estimates.
5. Specific methods of equipment and performance monitoring.

TECHNICAL

11. Understanding of existing facility conditions and systems.
12. Quality and comprehensiveness of proposed technical measures.
13. Quality of estimation procedure for the range of energy and demand savings.

FINANCIAL

14. Quality of estimation methods for projecting the range of gross annual utility cost savings.
15. Adequacy of methods for project performance monitoring.

APPENDIX E

SAMPLE RFP EVALUATION POINT VALUES

RFP EVALUATION POINT VALUES

The RFP recommended for PHA/IHA performance contracts was developed by the Illinois Department of Energy and Natural Resources, as presented in Appendices B, C, and D. The point values for the Superior (highest) rank are shown in Table E.1 by question number in the Written, Client Interview, and Oral Interview elements of the RFP evaluation.

Table E.1 Values for “Superior” ranked questions in RFP evaluation

Question No.	Written Response	Client Interview	Oral Interview
1	10	20	20
2	10	8	20
3	10	4	20
4	4	20	20
5	4	4	20
6	2	20	20
7	4	8	8
8	4	20	20
9	10	20	20
10	10	20	20
11	10	20	20
12	2	8	20
13	10		20
14	10		20
15	10		20
Total points possible	110	172	288

APPENDIX F

SAMPLE ENERGY SERVICES AGREEMENT

ENERGY SERVICES AGREEMENT

This Energy Services Agreement (the "Agreement") is made and entered into as of this day of _____, at _____, in the County of _____, State of _____, by and between _____, having its principal offices at _____ (Company) and the _____ ("CLIENT") with its principal offices at _____ for the purpose of installing certain energy saving equipment, described in Schedule A, and providing other services designed to save energy for the Client's property and buildings, known as _____ located at _____ (the "Premises" or the "Buildings")

WITNESSETH

WHEREAS, Client owns and operates the Premises, and is in need of energy saving equipment and service designed to save energy and associated energy costs at said Premises; and

WHEREAS, Company has developed or become knowledgeable about certain procedures for controlling energy consumption through the use of engineering analyses and devices installed and maintained on the premises of its customers; and

WHEREAS, Company has made an assessment of the energy consumption characteristics of the Premises, which Client has approved.

WHEREAS, Client desires to retain Company to install and service certain energy efficiency equipment of the type or class described in Schedule A, attached hereto and made part hereof and to provide other services for the purpose of achieving energy cost reductions within Premises, as more fully set forth herein; and

WHEREAS, Client desires to compensate Company for its services based upon the value of energy savings that are obtained; and

WHEREAS, Client is authorized under the Constitution and the laws of the State of _____ to enter into this Agreement for the purposes set forth herein.

NOW, THEREFORE, in consideration of the mutual promises and covenants contained herein, and intending to be legally bound hereby, Client and Company hereto covenant and agree as follows:

SECTION 1. ENERGY MANAGEMENT PLAN

Section 1.1 Plan Details. Company has prepared a complete energy use audit dated _____ which has been approved and accepted by Client. The audit includes all energy conservation measures agreed upon by the parties.

Section 1.2 Schedules. Company has prepared and Client has approved and accepted the schedules set forth on Attachment 1 hereto, copies of which are attached hereto and made a part hereof.

Section 1.3 Other Documents. This Agreement incorporates herein and makes a part hereof the Special Conditions and General Conditions of the RFP, labeled Appendix A and Appendix B respectively, as well as the entire RFP for this Project. In the event of conflict, the terms of this Agreement shall prevail.

SECTION 2. ENERGY USAGE RECORDS AND DATA

Client has furnished or shall furnish (or cause its energy suppliers to furnish) to Company, upon its request, all of its records and complete data concerning energy usage for the Premises including the following data for the most current thirty-six (36) month period; utility records; occupancy information; descriptions of any changes in the building structure or its heating, cooling, lighting or other systems or energy requirements; descriptions of all energy consuming or saving equipment used in the Premises; and description of energy management procedures presently utilized. If requested, Client shall also provide any prior energy audits of the Premises, and copies of Client's financial statements and records related to energy usage for said thirty-six (36) month period at said Premises, and shall make agents and employees familiar with such records available for consultations and discussions with Company.

SECTION 3. COMMENCEMENT DATE AND TERMS; INTERIM PERIOD

Section 3.1 Commencement Date. The Commencement Date shall be the first day of the month after the month in which all schedules are in final form and accepted by Client and Company shall have delivered a Notice to Client that it has installed and commenced operating all of the Equipment specified in Schedule A, and Client has inspected and accepted said installation and operation. Compensation payments due to Company for service and maintenance under this Agreement shall begin no earlier than one year from the Commencement Date as defined herein.

Section 3.2 Term of Agreement; Interim Period. Subject to the following sentence, the term of this Agreement shall be ___ years measured beginning with the Commencement Date. Nonetheless, the Agreement shall be effective and binding upon the parties immediately upon its execution, and the period from contract execution until the Commencement Date shall be known as the "Interim Period". All energy savings achieved during the interim period will be fully credited to Client.

SECTION 4. PAYMENTS TO COMPANY

Section 4.1 Energy Savings Guaranty. Company has formulated and guaranteed the level of energy savings which will be achieved as a result of the installation and operation of the Equipment and provision of services provided for in this Agreement. The "Energy Savings Guaranty" is set forth in Schedule B.

Section 4.2 Fees. Company has structured the energy savings guaranty referred to in Section 4.1 above so as to be sufficient to include any and all payments required to be made by Client in connection with financing the Equipment to be installed by Company under this Agreement. Actual energy savings achieved by Company shall be sufficient to cover any and all fees to be paid by Client with respect to Service to be provided by Company pursuant to Schedule C.

Section 4.3 Billing Information Procedure. Payments due to Company under this Section 4 shall be calculated each ___ in the following manner:

(i) By the ___ day after receipt, Client shall provide Company with copies of all energy bills for the Premises which it shall have received for the preceding month;

(ii) Upon receipt of the required information, Company shall calculate the savings in accordance with the agreed calculation formula in Schedules E and I.

(iii) Based upon paragraphs (i) and (ii) above, Company shall prepare and send to Client a _____ invoice which shall set forth for each _____ the amounts of the energy dollar savings calculated in accordance with Schedule E. The invoice will set forth the total payment due from Client.

Section 4.4 Payment. Client shall pay Company within ___ days of receipt of Company's invoice.

Section 4.5 Annual Review and Reimbursement. Within ____ days of the end of each twelve month period, Company and Client shall review the guaranteed and actual energy savings and any payments made by Client, and shall determine the annual net savings and/or payment figures. In the event that annual payments Client exceed actual savings, Company shall, within ____ days of this determination, reimburse Client for said excess payments according to the terms of Schedule B.

Section 4.6 Effective Date of Payment Obligation. Notwithstanding the above provisions in Section 4, Client shall not be required to begin any payments to Company under this Agreement unless and until all equipment installation is completed by Company and accepted by client, and unless and until said equipment is fully and properly functioning.

SECTION 5. CONSTRUCTION SCHEDULE AND EQUIPMENT
INSTALLATION APPROVAL

Construction and equipment installation shall proceed in accordance with the construction schedule approved by Client and attached hereto as Schedule F.

SECTION 6. EQUIPMENT WARRANTIES

Company covenants and agrees that all equipment installed as part of this Agreement is new, in good and proper working condition and protected by appropriate written warranties covering all parts and equipment performance. Company further agrees to deliver to Client for inspection and approval all such written warranties; to pursue rights and remedies against manufacturer and seller of the equipment under the warranties in the event of equipment malfunction or improper or defective function, and defects in parts, workmanship and performance; to notify Client whenever defects in equipment parts or performance occur which give rise to such rights and remedies and those rights and remedies are exercised by Company. The cost of any risk of damage or damage to the equipment and its performance, including damage to property and equipment of Client or the Premises, due to Company's failure to exercise its warranty rights shall be borne solely by Company.

All warranties shall be transferable and extend to client/user. The warranties shall specify that only new, and not reconditioned parts, may be used and installed when repair is necessitated by malfunction.

All warranties required hereunder shall be in force for a minimum of one year from the commencement date as defined in Section 3.1 hereof.

SECTION 7. PERMITS AND APPROVALS; COORDINATION

Section 7.1 Permits and Approvals. Client shall use its best efforts to assist Company in obtaining all necessary permits and approvals for installation of the Equipment. In no event shall Client, however, be responsible for payment of any permit fees. The equipment and the operation of the equipment by Company shall at all times conform to local code requirements.

Section 7.2 Coordination during installation. Client and Company shall coordinate the activities of Company's equipment installers with those of the Client, its employees, and agents. Company shall not commit or permit any act which will interfere with the performance of business activities conducted by Client or its employees without approval of Client.

SECTION 8. PERFORMANCE BY COMPANY

Company shall perform all tasks/phases under the Agreement, including construction, and install the Equipment in such a manner so as not to harm the structural integrity of the buildings or their operating systems and so as to conform to the standards set forth in Schedule G and the construction schedule. Company shall repair and restore to its original condition any area of damage caused by Company's performance under this Agreement. Client reserves the right to review the work performed by Company and to direct Company to take certain corrective action if, in the opinion of Client, the structural integrity of the Premises or its operating system is or will be harmed.

SECTION 9. OWNERSHIP

Section 9.1 Ownership of Certain Proprietary Property Rights. Client shall not, by virtue of this Agreement, acquire any interest in any formulas, patterns, devices, secret inventions or processes, copyrights, patents, other intellectual or proprietary rights, or similar items of property which are or may be used in connection with the Equipment.

Section 9.2 Ownership of Existing Equipment. Ownership of the equipment and materials presently existing at the Premises at the time of execution of this Agreement shall remain the property of the client even if it is replaced or its operation made unnecessary by work performed by Company Pursuant to this Agreement.

SECTION 10. LOCATION AND ACCESS

Client shall provide sufficient rent free space on the Premises for the installation and operation of the Equipment and shall take reasonable steps to protect such Equipment from harm, theft and misuse. Client shall provide access to the Premises for Company to perform any function related to this Agreement during regular business hours, or such other reasonable hours as may be requested by Company and acceptable to the Client. Company shall be granted immediate access to make emergency repairs or corrections as it may, in its discretion, determine are needed.

SECTION 11. EQUIPMENT SERVICE

Section 11.1 Actions by Company. Company shall provide all service, repairs, and adjustments to the Equipment installed under terms of this Agreement pursuant to Schedules A and C. Client shall incur no cost for Equipment service, repairs, and adjustments, except as set forth in Schedule C, provided, however, that when the need for maintenance or repairs principally arises due to the negligence or willful misconduct of the Client or any employee or other agent of Client and Company can so demonstrate such causal connection, Company may charge Client for the actual cost of the maintenance or repair insofar as such cost is not covered by any warranty or insurance proceeds.

Section 11.2 Malfunctions and Emergencies. Client shall notify Company or its designee by telephone as soon as reasonably possible and at least within twenty-four (24) hours after it becomes aware of (i) any malfunction in the operation of the Equipment or any preexisting energy related equipment that might materially impact upon the guaranteed energy savings, (ii) any interruption or alteration to the energy supply to the Premises, or (iii) any alteration or modification in any energy-related equipment or its operation. Where Client exercises diligence in attempting to assess malfunction, it shall not be deemed negligent or reckless in failing to correctly identify a malfunction as having a material impact upon guaranteed energy savings. Company shall respond to any such notice within _____ and shall promptly thereafter proceed with corrective measures. Client shall notify Company forthwith upon its learning of any emergency condition affecting the Equipment. Company shall respond to any such notice within _____ hours and shall promptly thereafter proceed with corrective measures. Any telephonic notice shall be followed within three business days by written notice from Client. If Client unreasonably delays in so notifying Company of a malfunction or emergency, and the malfunction or emergency is not otherwise corrected or remedied, Company may charge Client for its loss, due to the delay, of compensation which would otherwise be paid it under this Agreement for the particular time period, provided that Company is able to show the direct causal connection between the delay and the loss.

Section 11.3 Actions by Client. Client shall not move, remove, modify, alter, or change in any way the Equipment or any part thereof without the prior written approval of Company except as set forth in Schedule H. Notwithstanding the foregoing, Client may take reasonable steps to protect the Equipment if, due to an emergency, it is not possible or reasonable to notify Company before taking any such actions. In the event of such an emergency, Client shall take reasonable steps to protect the Equipment from damage or injury and shall follow instructions for emergency action provided in advance by Company. Client agrees to maintain the Premises in good repair and to protect and preserve all portions thereof which may in any way affect the operation or maintenance of the Equipment.

Section 11.4 Effect of Equipment Malfunctions on Client. Any equipment malfunction due solely to nonperformance by Company which results in the cancellation of scheduled activities due to the failure to meet the standards of service and comfort set forth in Schedule G shall result in an assessment against Company in an amount to compensate Client for revenues which it would have realized from the scheduled activities.

SECTION 12. UPGRADING OR ALTERING THE EQUIPMENT

Company shall at all times have the right, subject to Client's prior written approval, which approval shall not be unreasonably withheld, to change the Equipment, revise any procedures for the operation of the equipment or implement other energy saving actions in the Premises, provided that the standards of services set forth in Schedule G herein shall not be reduced. Subject to Client's approval and acceptance, which shall not be unreasonably withheld, all replacements, deletions, alterations, or additions of Equipment, or revisions to the procedures shall be described in a supplemental schedule or schedules to be provided in writing to Client and to be attached to this Agreement and made part hereof.

SECTION 13. STANDARDS OF COMFORT

Company will maintain and operate the Equipment in a manner which will provide the standards of heating, cooling, hot water, and lighting which are described in Schedule G.

SECTION 14. MATERIAL CHANGES

Section 14.1 Reported Material Changes. Client shall deliver to Company a written notice describing and explaining all actual or proposed Material Changes in the Premises or in the operations in the Premises and their anticipated effect on energy use. Said Notice must be delivered to Company no less than ____ days before any actual or proposed Material Change occurs. For purposes of this provision, a Material Change is defined as any change in the following which reasonably could be expected to increase or decrease energy used at the Premises by more than percent (____%):

- (i) manner of use of the Premises by Client;
- (ii) hours of operation of any equipment or facilities or energy systems contained in the Premises;
- (iii) occupancy of the Premises;
- (iv) structure of the Premises;
- (v) types of equipment used in the Premises; or
- (vi) conditions affecting energy use in the Premises.

Section 14.2 Unreported Material Changes. In the absence of any material Changes in the Premises or in their operations, energy consumption should not change from year to year. Therefore, if energy consumption for any month increases by ____ percent (____ %) or more from the energy consumption for the same month of the preceding contract year after adjustment for changes to climactic conditions, then such increase shall be deemed to have resulted from a Material Change, except where such increase is due to equipment malfunction, faulty repair or other acts of negligence by Company.

Section 14.3 Adjustments for Material Changes. In the event of any increase or decrease in energy consumption for any month resulting from a reported or unreported Material Change, the amount of that increase shall be subtracted from or that decrease shall be added to the total energy consumption for that month prior to the calculation of energy savings pursuant to Schedule E.

If a reported or unreported Material Change affected energy consumption in the same calendar month in the preceding year, the next preceding contract year where a Material Change has not occurred will be used to compute the energy savings for the current month.

SECTION 15. PROPERTY/CASUALTY INSURANCE/INDEMNIFICATION

Section 15.1 At all times during the term of this Agreement, Company shall maintain in full force and effect, at its expense: (1) Workmen's Compensation Insurance sufficient to cover all of the employees of (company) working to fulfill this Agreement, and (2) Casualty and Liability Insurance on the Equipment and Liability Insurance for its employees and the possession, operation, and service of the Equipment. The limits of such insurance shall be not less than _____ for injury to or death of one person in a single occurrence and _____ for injury to or death of more than one person in a single occurrence and _____ for a single occurrence of property damage. Such policies shall name the Client as an additional insured.

Prior to commencement of work under this Agreement, Company will be required to provide Client with current certificates of insurance specified above. These certificates shall contain a provision that coverages afforded under the policies will not be canceled or changed until at least thirty (30) days' prior written notice has been given to Client.

Section 15.2 Company shall be responsible for (i) any damage to the Equipment or other property on the Premises and (ii) any personal injury where such damage or injury occurs as a result of Company's performance under this Agreement.

Section 15.3 Company shall save and hold harmless Client and its officers, agents and employees or any of them from any and all claims, demands, actions or liability of any nature based upon or arising out of any services performed by Company, its agents or employees under this Agreement.

SECTION 16. CASUALTY OR CONDEMNATION OF PREMISES.

Any construction or restoration of the Premises following or necessitated by fire, flood, or other casualty, or any condemnation affecting any portion of the Premises, shall be deemed a Material Change, and the provisions of SECTION 14 shall be applicable. If the casualty or condemnation renders fifty percent or more of the Premises uninhabitable or unusable and, in the case of a casualty, the affected portion is not reconstructed or restored within one hundred and twenty (120) days from the date of such casualty, Company shall have the option to terminate this Agreement by a Notice to Client.

SECTION 17. CONDITIONS BEYOND CONTROL OF THE PARTIES

If a party ("performing party") shall be unable to reasonably perform any of its obligations under this Agreement due to acts of God, insurrections or riots, or similar events, this Agreement shall at the other party's option

(i) remain in effect but said performing party's obligations shall be suspended until the said events shall have ended: or,

(ii) be terminated upon ten (10) days' notice to the performing party, in which event neither party shall have any further liability to the other.

SECTION 18. EVENTS OF DEFAULT

Section 18.1 Events of Default by Client. Each of the following events or conditions shall constitute an "Event of Default" by Client:

(i) any failure by Client to pay Company any sum due for a service and maintenance period of more than ____ days after written notification by Company that Client is delinquent in making payment;

(ii) any other material failure by Client to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein, provided that such failure continue for ____ days after notice to Client demanding that such failures to perform be cured or if cure cannot be effected in such ____ days, Client shall be deemed to have cured default upon the commencement of a cure within such ____ days and diligent subsequent completion thereof;

(iii) any representation or warranty furnished by Client in this Agreement which was false or misleading in any material respect when made.

Section 18.2 Events of Default by Company. Each of the following events or conditions shall constitute an “Event of Default” by Company:

(i) the standards of comfort set forth in Schedule G are not provided due to failure of Company to maintain, repair, or adjust the Equipment and said failure continues for ____ days after notice to Company without good faith efforts by Company to make necessary repairs or adjustments;

(ii) any representation or warranty furnished by Company in this Agreement is false or misleading in any material respect when made;

(iii) failure to furnish and install the Equipment and make it ready for use within the time specified by this Agreement;

(iv) provided that the operation of the facility is not adversely affected and provided that the standards of comfort in Schedule G are maintained, any failure by Company to perform or comply with the terms and conditions of this Agreement, including breach of any covenant contained herein except that such failure, if corrected or cured within ____ days after notice to Company demanding that such failure to perform be cured, shall be deemed cured for purposes of this Agreement;

(v) any lien or encumbrance upon the equipment by any subcontractor, laborer or materialman of Company;

(vi) the filing of a bankruptcy petition whether by Company or its creditors against Company which proceeding shall not have been dismissed within ____ days of its filing, or an involuntary assignment for the benefit of all creditors or the liquidation of Company;

SECTION 19. REMEDIES UPON DEFAULT

Section 19.1 Remedies upon Default by Client. If an Event of Default by Client occurs, Company may, without a waiver of other remedies which exist in law or equity, elect one of the following remedies:

(i) exercise all remedies available at law or in equity or other appropriate proceedings including bringing an action or actions from time to time for recovery of amounts due and unpaid by Client, and/or for damages which shall include all costs and expenses reasonably incurred in exercise of its remedy;

Section 19.2 Remedies Upon Default by Company. In the Event of Default by Company, Client shall have the choice of either one of the following remedies in law or equity:

(i) exercise and any all remedies at law or equity, or institute other proceedings, including, without limitation, bringing an action or actions from time to time for specific performance, and/or for the recovery of amounts due and unpaid and/or for damages, which shall include all costs and expenses reasonably incurred, including attorney’s fees;

SECTION 20. ASSIGNMENT

Section 20.1 Assignment by Company

(i) Company may, with notice to and consent of Client, which consent shall not be unreasonably withheld, delegate its duties and its performance under this Agreement, and/or utilize contractors, provided that any assignee(s), delegee(s), or contractor(s) shall honor the terms of this Agreement and shall so bind itself.

(ii) Notwithstanding the provisions of paragraph (i) above of this Section 20.1, Company shall remain jointly and severally liable with its assignee(s), or transferee(s) to Client for all of its obligations under this Agreement.

Section 20.2 Assignment by Client. Client may transfer or assign this Agreement and its rights and obligations herein to a successor or purchaser of the Buildings or an interest therein.

SECTION 21. ARBITRATION

Any dispute, controversy, or claim arising out of or in connection with, or relating to this agreement, or any breach or alleged breach hereof, shall, upon the request of any party involved (and without regard to whether or not any provision of this agreement expressly provides for arbitration), be submitted to and settled by arbitration in _____, in conformance with the rules of the American Arbitration Association then in effect for commercial disputes (or at any other place or under any other form of arbitration mutually acceptable to the parties). Any award rendered thereon may be entered in the highest court of a forum, state or federal, having jurisdiction. The expenses of the arbitration shall be borne equally by the parties to the arbitration, provided that each party shall pay for and bear the cost of its own experts, evidence, and counsel.

SECTION 22. REPRESENTATIONS AND WARRANTIES

Each party warrants and represents to the other that:

(i) it has all requisite power, authority, licenses, permits, and franchises, corporate or otherwise, to execute and deliver this Agreement and perform its obligations hereunder;

(ii) its execution, delivery, and performance of this Agreement have been duly authorized by, or are in accordance with, its organic instruments, and this Agreement has been duly executed and delivered for it by the signatories so authorized, and it constitutes its legal, valid, and binding obligation;

(iii) its execution, delivery, and performance of this Agreement will not result in a breach or violation of, or constitute a default under, any agreement, lease or instrument to which it is a party or by which it or its properties may be bound or affected; or

(iv) it has not received any notice, nor to the best of its knowledge is there pending or threatened any notice, of any violation of any applicable laws, ordinances, regulations, rules, decrees, awards, permits or orders which would materially and adversely affect its ability to perform hereunder.

SECTION 23. ADDITIONAL REPRESENTATIONS OF THE PARTIES.

Client hereby warrants, represents and promises that:

(i) it has provided or shall provide timely to Company, all records relating to energy usage of Premises requested by Company and the information set forth therein is, and all information in other records to be subsequently provided pursuant to this Agreement will be true and accurate in all material respects; and

(ii) it has not entered into any leases, contracts or agreements with other persons or entities regarding the leasing of energy efficiency equipment or the provision of energy management services for the Premises or with regard to servicing any of the energy related equipment located in the Premises. Client shall provide Company with copies of any successor or additional leases of energy efficiency equipment and contracts for management or servicing of preexisting equipment at Premises which may be executed from time to time hereafter within ____ days after execution thereof.

Company hereby warrants, represents and promises that:

(i) before commencing performance of this Agreement:

(a) it shall have become licensed or otherwise permitted to do business in the State of _____;

(b) it shall have provided proof and documentation of liability insurance pursuant to SECTION 15.1;

(ii) it shall make available, upon reasonable request, documents relating to its performance under this Agreement, including contracts and sub-contracts it shall enter into;

(iii) it shall use subcontractors and delegates who are qualified, licensed and bonded in this state to perform the work so subcontracted or delegated pursuant to the terms hereof.

SECTION 24. WAIVER OF LIENS

Company will obtain and furnish to Client a Waiver of Liens from each vendor, materialman and laborer in the furnishing, installation and servicing of each piece of Equipment.

SECTION 25. COMPLIANCE WITH LAW AND STANDARD PRACTICES

Company shall perform its obligations hereunder in compliance with any and all applicable federal, state, and local laws, rules, and regulations, in accordance with sound engineering and safety practices, and in compliance with any and all reasonable rules of Client relative to the Premises. Company shall be responsible for obtaining all governmental permits, consents, and authorizations as may be required to perform its obligations hereunder.

SECTION 26. INDEPENDENT CAPACITY OF THE CONTRACTOR

The parties hereto agree that Company, and any agents and employees of Company, in the performance of this Agreement, shall act in an independent capacity and not as officers, employees, or agents of the Client.

SECTION 27. NO WAIVER

The failure of Company or Client to insist upon the strict performance of the terms and conditions hereof shall not constitute or be construed as a waiver or relinquishment of either party's right to thereafter enforce the same in accordance with this Agreement in the event of a continuing or subsequent default on the part of Company or Client.

SECTION 28. SEVERABILITY

In the event that any clause or provision of this Agreement or any part thereof shall be declared invalid, void, or unenforceable by any court having jurisdiction, such invalidity shall not affect the validity or enforceability of the remaining portions of this Agreement unless the result would be manifestly inequitable or unconscionable.

SECTION 29. COMPLETE AGREEMENT

This Agreement, when executed, together with all Schedules attached hereto or to be attached hereto, as provided for by this Agreement shall constitute the entire Agreement between both parties and this agreement may not be amended, modified, or terminated except by a written agreement signed by the parties hereto.

SECTION 30. FURTHER DOCUMENTS

The parties shall execute and deliver all documents and perform all further acts that may be reasonably necessary to effectuate the provisions of this Agreement.

SECTION 31. APPLICABLE LAW

This Agreement and the construction and enforceability thereof shall be interpreted under the laws of the State of _____.

SECTION 32. NOTICE

Any notice required or permitted hereunder shall be deemed sufficient if given in writing and delivered personally or sent by registered or certified mail, return receipt requested, postage prepaid, or delivered to a nationally recognized express mail service, charges prepaid, receipt obtained, to the address shown below or to such other persons or addresses as are specified by similar notice.

TO COMPANY:

ATTENTION:

TO CLIENT:

SECTION 33. CLIENT'S COMPLIANCE WITH CHECKLIST

Section 33.1 The parties acknowledge and agree that Company has entered into this Agreement in reliance upon the prospect of earning compensation based on guaranteed energy savings in energy used at Premises, as set forth on Schedules B and C, attached hereto and made a part hereof.

Section 33.2 The parties further acknowledge and agree that the said guaranteed energy savings would not likely be obtained unless certain procedures and methods of operation designed for energy conservation shall be implemented, and followed by Client on a regular and continuous basis.

Section 33.3 Client agrees that it shall adhere to, follow and implement the energy conservation procedures and methods of operation to be set forth on Schedule H, to be attached hereto and made a part hereof after Client's approval.

Section 33.4 Client agrees that Company shall have the right once a month, with prior notice, to inspect Premises to determine if Client is complying, and shall have complied with its obligations as set forth above in Section 33.3. For the purpose of determining Client's said compliance, the checklist to be set forth at Schedule J as completed and recorded by Company during its monthly inspections shall be used to measure and record Client's said compliance. Client shall make the Premises available to Company for and during each monthly inspection, and shall have the right to witness each inspection and the recordations on the checklist.

SECTION 34. HEADINGS

Headings and subtitles used throughout this Agreement are for the purpose of convenience only, and no heading or subtitle shall modify or be used to interpret the text of any section.

IN WITNESS WHEREOF, and intending to be legally bound, the parties hereto subscribe their names to this Agreement by their duly authorized officers on the date first above written.

(Corporate Seal)

ATTEST:

_____ By: _____

By: _____

SAMPLE CONTRACT SCHEDULES

Schedule	A:	Equipment to be Installed by Company
Schedule	B:	Energy Savings Guaranty
Schedule	C:	Company's Compensation and Scheduled Equipment Service and Maintenance Responsibilities
Schedule	D:	Projected Financial Performance
Schedule	E:	Savings Calculation Formula
Schedule	F:	Construction and Equipment Installation Schedule
Schedule	G:	Standards of Comfort
Schedule	H:	Client Operations and Maintenance Responsibilities Facility Changes Checklist
Schedule	I:	Baseline Energy Consumption