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Evaluation of Training Workshops on Performance Contracting for Public Housing Agencies in HUD Regions I, IX, & X

Jeannette Brinch
James O. Kolb

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FOR THE UNITED STATES
DEPARTMENT OF ENERGY

ENERGY DIVISION

**EVALUATION OF TRAINING WORKSHOPS ON PERFORMANCE CONTRACTING
FOR PUBLIC HOUSING AGENCIES IN HUD REGIONS I, IX, & X**

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TABLE OF CONTENTS

ABSTRACT	v
1. INTRODUCTION	1
1.1. BACKGROUND	1
1.2. PURPOSE OF REPORT	2
2. WORKSHOP PLANNING APPROACH	3
2.1 STEERING COMMITTEE	3
2.2 USE OF SMALL GROUPS FOR INTERACTION	3
2.3 MAXIMUM NUMBER OF PARTICIPANTS	3
2.4 TARGET AUDIENCE	4
2.5 TIME SCHEDULE	4
2.6 KEY PARTICIPANTS	4
2.7 SPEAKERS AND RESOURCE PERSONS	4
2.8 TRAINING MATERIALS	5
2.9 EVALUATION FORMS	5
3. WORKSHOP PROGRAMS	7
3.1 LOCATION AND SCHEDULE	7
3.2 AGENDA DEVELOPMENT	7
4. WORKSHOP PARTICIPANTS	11
4.1 THE INVITATION PROCESS	11
4.2 SUMMARY OF ATTENDEES	11
4.3 SUMMARY OF ATTENDEE EVALUATIONS	12
5. OVERALL ASSESSMENT OF INITIAL WORKSHOP PROGRAM	15
5.1 STRENGTHS AND WEAKNESSES	15
5.2 KEY ISSUES	16
6. RECOMMENDATIONS	17
6.1 IMPROVING THE WORKSHOP PROGRAM	17
6.2 FUTURE RECOMMENDATIONS	18
APPENDIX A. Region I Agenda	21
APPENDIX B. Region IX/X Agenda	29
APPENDIX C. Region I Letter of Invitation	37
APPENDIX D. Regions IX/X Letter of Invitation	41
APPENDIX E. Letter to State Energy Offices - Region I	45
APPENDIX F. Letter to State Energy Offices - Regions IX/X	49

APPENDIX G. Attendees & Speakers - Region I	53
APPENDIX H. Attendees & Speakers - Regions IX/X	63
APPENDIX I. Evaluation Form	71
APPENDIX J. Evaluation Results - Region I	75
APPENDIX K. Evaluation Results - Region IX/X	87

ABSTRACT

This report makes recommendations to the DOE/HUD Initiative Steering Committee on how to improve and expand the training effort of public housing agencies and Indian Housing Authorities in Energy Performance Contracting based on the experience and feedback obtained in two pilot workshops held in HUD Regions I, and IX and X. The major findings of the report are that, even though the first pilot workshops received positive responses from most of the attendees, there are improvements that can be made in future workshops in the areas of agenda content, involvement of utilities and energy service companies, follow-up technical assistance, and continuing communication.

1. INTRODUCTION

1.1. BACKGROUND

DOE/HUD Initiative

A cooperative program between the Department of Energy (DOE) and the Department of Housing and Urban Development (HUD) was initiated in April 1990 to improve energy efficiency and affordability of publicly-assisted housing and to reduce costs for tenants, owners, and HUD. DOE began to provide funding for several projects in public housing and multi-family housing in FY 1990.

Guidebook on Performance Contracting

An initial project in the DOE/HUD Initiative was to develop a guidebook on energy performance contracting for Public Housing Agencies and Indian Housing Authorities (PHAs and IHAs). The overall goal of this project was to assist HUD in reducing utility costs for PHAs and IHAs by installing cost-effective Energy Conservation Measures (ECMs) under changes to the Performance Funding System (PFS) as set forth in 24 CFR Parts 905, 965, and HUD PFS Handbook, 7475.13 REV.

The Energy Division of the Oak Ridge National Laboratory (ORNL) was tasked with developing a performance contracting guidebook in FY 1990. The *Guidebook* provides detailed information on energy performance contracting for PHAs and IHAs and on the process for selecting contractors and gaining HUD approval for energy performance contracts in public housing. The *Guidebook* was published by HUD in 1992.

Early Training Activities

Concurrently, Energetics conducted an outreach program on energy performance contracting for PHAs and IHAs. In FY 1990-1991, Energetics designed, constructed and staffed an exhibit booth on the DOE/HUD Initiative, on Energy Efficiency in Housing, and on energy performance contracting for federally-assisted housing. The Exhibit was displayed at the National Association of Housing & Redevelopment Officials (NAHRO) National Convention, the Public Housing Authorities Directors Association (PHADA) National Convention, and two regional NAHRO meetings. Energetics coordinated technical sessions on HUD's energy performance contracting program at each of these conferences. In addition, Energetics and ORNL coordinated technical workshops and tutorials on the HUD energy performance contracting Program at the Affordable Comfort Conferences in 1992 and 1993. Panel members, representing PHAs, energy service companies (ESCO's), energy experts, and HUD, presented instructional information on how energy performance contracting works, on the particulars of the HUD program, and on the necessary financial arrangements PHAs need to be aware of if they wish to undertake energy improvements using performance contracts.

Training Workshops in Performance Contracting¹

As a follow-on project to developing the *Guidebook* and the early training efforts, ORNL and Energetics were tasked in the DOE/HUD Initiative to develop and present training workshops on energy performance contracting for PHAs and IHAs in two HUD regions. The objectives of this project were: 1) to provide training to PHAs and IHAs on the performance contracting process as presented in the *Guidebook*; and 2) to evaluate the effectiveness of the training workshops presented to PHAs and IHAs in two HUD regions on initiating energy rehabilitation projects using performance contracts.

The first training workshop was held in Boston, MA, on October 27-29, 1992, for PHAs in HUD Region I; the second workshop was held in San Francisco, CA, on June 9-11, 1993, for PHAs in HUD Regions IX and X.

1.2 PURPOSE OF REPORT

The purpose of this report is to make recommendations to the DOE/HUD Initiative Steering Committee on how to improve and expand the training effort of PHAs and IHAs in energy performance contracting based on the experience and feedback obtained in the workshops held in Regions I, and IX and X.

¹Since the workshops described herein have taken place, HUD has changed its field structure.

2. WORKSHOP PLANNING APPROACH

The responsibility for planning the first two workshops on energy performance contracting by PHAs was assigned to ORNL and its subcontractor, Energetics, Inc. Primary elements in the planning approach used to develop the first workshop are described below.

2.1 STEERING COMMITTEE

A steering committee was formed to provide guidance to ORNL and Energetics on the initial workshops. This committee represented a broad base of participants to provide input on the workshop agenda, format, participants, and target audience.

In addition to ORNL and Energetics, the steering committee consisted of representatives of the following organizations:

- HUD Community Planning & Development Office of Environment and Energy;
- HUD Public and Indian Housing Financial Management Division;
- HUD Office of Procurement & Contracts;
- HUD Public and Indian Housing Division of Policy & Evaluation;
- HUD Public and Indian Housing Office of Construction, Rehabilitation & Management;
- DOE Existing Buildings Research Program;
- DOE Institutional Conservation Program;
- Energy Service Companies - Donahue & Associates, Citizens Conservation Corporation; and
- National Association of Housing & Redevelopment Officials.

The steering committee met on July 14 and August 25, 1992, to plan the first workshop to be held in Boston, MA, for HUD Region I PHAs on October 27-29, 1992. Additional meetings of the committee were held on April 1 and July 8, 1993.

2.2 USE OF SMALL GROUPS FOR INTERACTION

A goal established early by the steering committee was to use small groups or break-out sessions in order to facilitate interaction between the attendees. The small groups would be used in combination with plenary sessions to present several topics that required more detailed explanation. Topics chosen for small groups at the first workshop were: 1) energy rehab project identification; 2) ESCO selection - RFP evaluation, and contract negotiation; 3) sources of project funding; and 4) project monitoring.

2.3 MAXIMUM NUMBER OF PARTICIPANTS

The maximum number of participants was a planning issue because it was desirable to limit the size of the small group or break-out sessions to facilitate discussion and

interaction. It was decided to limit the maximum number of participants in the small group sessions to approximately twenty. With four small group sessions, the maximum number of participants desired was eighty.

2.4 TARGET AUDIENCE

With the maximum number of participants set at approximately eighty, the next step was to estimate the number and type of representatives to encourage from each PHA. There were thirty-three PHAs in Region I with 500 or more units; the 500 unit level was used to screen out small PHAs that would have less possible use for performance contracting. Thus, two or three representatives from each of the larger PHAs were to be targeted for the workshop.

The possible participants from a PHA for a training workshop on performance contracting include a wide range of staff personnel, from the executive director to maintenance directors. It was believed that the executive director should be included as the top decision-maker plus an additional staff member such as the finance director or operations director to provide input for the housing agency in these areas.

In addition to PHA representatives, staff members of HUD field and regional offices, representatives of regional utilities, and ESCOs were also included in the target audience.

2.5 TIME SCHEDULE

A reasonable schedule was thought to be two to three days to cover the agenda on a new subject like performance contracting.

An additional one-half day was to be allocated for special training of HUD field and regional staff.

2.6 KEY PARTICIPANTS

In addition to members of PHA and HUD staffs, the steering committee suggested that there were other participants who could play a key role in emphasizing the importance and potential of the performance contracting project funding approach represented. These key participants were the directors of both the HUD regional office and DOE regional office.

2.7 SPEAKERS AND RESOURCE PERSONS

The steering committee discussed the individuals who could serve as speakers and resource persons. In addition to HUD, ORNL, and DOE staff and consultants who were involved in the *Guidebook* development, the committee suggested that local experts be included to discuss local project financing vehicles, utility demand-side management (DSM) and conservation financing and demonstrations, and energy performance contracting projects

in public housing. Energetics used these suggestions in developing the workshop agendas, discussed in Section 3.2.

2.8 TRAINING MATERIALS

The issue of providing training materials in the form of a bound manual for workshop attendees was discussed by the steering committee. By having materials prepared by presenters in written form, it was believed that attendees would be able to focus more on the presentations rather than on taking notes. Therefore, Energetics solicited presentation materials from the speakers and resource persons and assembled a "loose-leaf" style notebook. Notebooks, as opposed to a folder format, were also thought to be worth the additional cost because of their more professional appearance and their use as reference materials following the workshop.

2.9 EVALUATION FORMS

In order to critique the workshop for the purpose of improving future ones, evaluation forms were developed by Energetics, reviewed by the steering committee, and distributed at both workshops. These forms solicited responses to each presentation and to the content and format of the workshop agenda. See Section 4.3 for a summary of these evaluations for each workshop.

3. WORKSHOP PROGRAMS

3.1 LOCATION AND SCHEDULE

The first workshop was scheduled for October 27-29, 1992, in Boston, Massachusetts, for PHAs in HUD Region I. This region was selected for the first workshop because of the significant amount of energy performance contracting underway or completed in the public housing arena. There are 33 housing authorities with 500 or more units in this region, so the potential for their using performance contracting for building renovation and retrofit was thought to be fairly significant. In addition, total annual utility costs for these 33 PHAs are estimated to be \$73.6 million, providing an opportunity for energy savings in their developments. Finally, much of the energy performance contracting work in public housing has been done by Citizens Conservation Corporation (CCC) in Boston. CCC has been involved in energy performance contracting, particularly for the non-profit and government sectors, for a number of years. The company contributed to the *Guidebook*, serves on the Training Program Steering Committee, and participated in all of the early training sessions on energy performance contracting for public and Indian Housing. By scheduling the first training workshop in Boston, Energetics and ORNL were able to draw on CCC's significant knowledge about, and contacts in, Region I.

The second workshop was scheduled for June 9-11, 1993, in San Francisco, California, for Regions IX and X. These regions were targeted for the second training because of the interest in sponsoring a workshop on the west coast to balance the east coast workshop held earlier and because of the opportunity to focus on water conservation as well as energy conservation in these regions. In addition, there were a number of IHAs in these two regions which were potentially interested in performance contracting. Finally, DOE and HUD wanted to "test the waters" in an area of the country not familiar with energy performance contracting for PHAs and IHAs, and thus to provide training to PHAs and IHAs and see if that training translated into program development.

3.2 AGENDA DEVELOPMENT

The agenda for the Region I workshop (see Appendix A) was drafted by Energetics and submitted to ORNL and the Steering Committee for review and revision. The agenda was designed to follow the content of the *Guidebook* so that workshop participants would be trained in such a way that following the workshop they could easily turn back to their training notebooks and the *Guidebook* for reference. Other important points about the structure of the Boston agenda, which was the basis for the San Francisco agenda as well, included:

- The first day of the workshop was designed to provide a basic level of information to workshop participants. A series of plenary sessions were held, covering the DOE-HUD Initiative and its importance to public and Indian housing; the basics of energy performance contracting in public and Indian housing applications; comparing energy performance contracting with conventional bid and spec construction; the HUD Performance Funding System; sources of project funding; and HUD approval of performance

contracts. Although this first day was fatiguing for both speakers and participants, it was believed that everyone should receive the same information and hear questions and answers together.

- The second day of the workshop consisted of a series of small group sessions, which all participants attended in a rotating fashion. The small group sessions covered the following topics: 1) identification of appropriate energy rehab projects for energy performance contracting; 2) selection of the right energy service company; 3) sources of project funding; and 4) project monitoring. With only 20-25 participants in each small group, it was felt that participants and resource persons could engage in more productive discussion on the details of energy performance contracting in public and Indian housing applications.
- Stephanie Suttles, Director of the energy performance contracting Project of the Chicago Housing Authority, was the luncheon speaker on the second day. It was felt that it was important for the workshop attendants to experience her enthusiasm for energy performance contracting in public housing.
- The first half of the third day was designed to pull all of the information together so that participants would leave the workshop with a clear concept of what they needed to do to initiate an energy performance contracting project in their area. A plenary session covered methods to include energy performance contracting in PHA operating budgets; a presentation from CCC on how energy performance contracting can have a positive financial impact on the housing agency; and a "testimonial" from one housing agency which has completed an energy performance contract for one of its housing units. Reports from the small group sessions completed the final half-day. These reports were designed to allow unanswered questions to be answered in the presence of all workshop participants.
- On the final afternoon, Washington HUD personnel met with the regional and field office HUD personnel to discuss remaining administrative issues associated with encouraging and facilitating energy performance contracting in public and Indian housing.

The agenda for San Francisco followed a similar format, although changes were made in response to participant evaluations from Region I and the Steering Committee's own evaluation of the first workshop. Recommended changes to the workshop format included:

- more presentations from local energy service companies in Regions IX and X;
- more time for reports from small group sessions;
- more representation from utilities;
- more time spent in small group sessions;

- use of a case study format to present information;
- information on how energy performance contracting relates to the Comprehensive Grant Program;
- more time for discussion;
- more interaction with HUD regional and field personnel;
- more information on baseline energy consumption, how to estimate it, and how to insure that it is correct; and
- clearer guidelines on how PHAs and IHAs can assess the energy efficiency of their buildings to evaluate the potential for significant energy savings.

In response to these suggestions, Energetics developed a different agenda for the San Francisco workshop and presented it to ORNL and the Steering Committee for their review. The final agenda for the Region IX/X workshop is shown in Appendix B. This agenda had the following characteristics:

- The format for the first day was identical to that of Region I, except that a plenary session on energy rehab project identification was substituted for the session on project funding sources. Project funding was covered only in the small groups on the second day.
- A luncheon speaker on water conservation measures for public housing was added on the first day because of the importance of this issue in arid or drought-prone western states in Regions IX and X.
- Three small group sessions were held on the second day, rather than four. The three topics included ESCO selection, project funding, and project monitoring. This was done to allow more time for discussion in the small group sessions.
- As in the Region I workshop, Stephanie Suttles, Director of the energy performance contracting Project of the Chicago Housing Authority, was the luncheon speaker on the second day. It was again felt that it was important for the workshop attendants to hear from a leading housing authority official who is enthusiastic for energy performance contracting in public housing.

- The third day was extended for Regions IX/X. Rather than ending the workshop before lunch, lunch was provided and a roundtable session held in the afternoon. The morning plenary session included a presentation on preparation of the Comprehensive Grant Plan to include energy performance contracting, a presentation from Pacific Gas & Electric on their demand side management program, and CCC's presentation on the financial incentives available to housing agencies for participating in energy performance contracting.
- A tenant education presentation provided information to PHAs and IHAs on how to involve their tenants in lasting energy improvements.
- The final roundtable allowed participants to ask questions of all presenters and resource persons. Many of these questions were ones raised in the small group sessions which had not been sufficiently answered. By allowing an opportunity for "any and all" questions to be answered in front of the entire group, all would hear the responses to avoid later confusion.

Development of the agendas for both workshops relied heavily on input from the Steering Committee as well as speakers and resource persons. Their expertise on the topics to be presented, as well as on effective ways to train public housing officials, was invaluable. Throughout each workshop, Energetics and ORNL met with this group of workshop planners, presenters, and resource persons to assess the effectiveness of the training workshop to that point and to make corrections as necessary. Any problems that arose during the course of each workshop were dealt with on the spot.

4. WORKSHOP PARTICIPANTS

4.1 THE INVITATION PROCESS

A participant invitation list for each regional workshop was developed by HUD and submitted to Energetics. The list included directors of PHAs and IHAs with 500 or more units in their portfolio. This list formed the core of each workshop. An invitation letter was drafted by Energetics, reviewed and revised by the Steering Committee, and submitted to HUD's Deputy Assistant Secretary for Public and Indian Housing for his review and approval.

Once that was accomplished, the modified letter was sent back to Energetics for original letters to be processed and returned to HUD, along with copies of the agenda, for signature and posting by HUD. This process was followed for each regional workshop. Copies of the invitation letters are shown as Appendices C and D.

Follow-up telephone calls were then made by regional office staff, including the Regional Environmental Officers and the Regional Directors of Public Housing as well as by Field Office Staff. In Region I, additional telephone calls were made by HUD Headquarters staff in the Office of Financial Management. These telephone follow-up calls were extremely important in all three regions; they served to underscore the level of attention being paid to this program by HUD Headquarters and Regional Administrators and to personalize each invitation.

In addition to PHAs and IHAs, state energy office directors (or their representatives) were invited to attend. Energetics drafted invitation letters to the directories, in the pilot three regions, the letters were approved at DOE, produced at Energetics, and signed and sent by DOE's Office Director of Building Energy Research. Copies of the invitation letters are shown as Appendices E and F. Limited telephone follow-up was made to this group. Only two representatives of a state energy office attended the workshop in Boston.

Additional contacts were made with ESCOs, utility companies, water conservation consultants, and financial companies with an interest in energy performance contracting in the public sector. Despite these efforts, there was only limited interest in attending either of the two workshops by these groups.

4.2 SUMMARY OF ATTENDEES

The Region I workshop was attended by 59 participants, not including speakers and resource persons. Of these, 45 represented PHAs; two were from state energy offices; three represented utility companies; and nine represented the HUD Region I and Field Office staffs. HUD Headquarters staff, who served as speakers and resource personnel, numbered seven. Other speakers and resource persons, from both the public and private sectors, numbered twelve. The total number of workshop participants was 78 (see Appendix G).

In Regions IX/X, there were 65 participants, not including speakers and resource persons, of whom 38 were public and Indian housing representatives. One ESCO (other than

CCC) attended; three represented financing companies; one represented a water management firm; seventeen attended from HUD Region IX and its field offices; one attended from HUD Region X; one attended from DOE Region IX, and three were from other organizations generally interested in this topic. Six individuals from HUD Headquarters and twelve others from the public and private sectors served as speakers and resource persons. The total number of workshop participants was 83 (see Appendix H).

After the Region I workshop, the Steering Committee recommended that energy service companies serving Regions IX and X be particularly targeted to attend the San Francisco workshop. Housing authorities would then be put in touch with local ESCOs, rather than being forced to work with ESCOs many miles away. Therefore, a mailing list from the National Association of Energy Service Companies (NAESCO) was obtained and a selected list of ESCOs was invited to attend. Only two responses were received; one individual attended the workshop.

In addition to greater ESCO representation, Energetics attempted to encourage workshop attendance in San Francisco from public and private utilities. Since many utility companies now have extensive DSM programs, some of which include financial and technical assistance for energy efficiency improvements in federally-subsidized housing, contacts were made throughout both regions to invite utility representatives to make presentations and attend the workshop. This effort was unsuccessful; only Pacific Gas & Electric attended the workshop to give a presentation on the company's DSM program.

4.3 SUMMARY OF ATTENDEE EVALUATIONS

Energetics developed an Evaluation Form for each workshop, shown as Appendix I. This form was distributed to each participant at each workshop with a request to fill it out and leave it with the Registration desk at the conclusion of the workshop. The evaluation from the Region I workshop is shown as Appendix J; the evaluation from the Region IX/X workshop is shown as Appendix K. The percentage return of 42% was slightly higher from Boston than the 38% return from San Francisco workshop participants, but both response rates were adequate to provide Steering Committee members as well as DOE and HUD clients with information to evaluate workshop success.

The Boston workshop was extremely well received, from the attendee point of view. Respondents rated both plenary sessions and small group sessions primarily Excellent or Good and provided many positive comments about the content and presentations made by speakers and resource persons. Many participants recommended that the workshop be longer and that more case study information be provided.

In response to both the quantitative tabulations for each question, as well as the comments and suggestions made by Boston attendees, the San Francisco workshop was designed to be longer and to allow more discussion during longer small group sessions. Region IX/X workshop participants were not as satisfied as Boston participants with either the presentations or the small group sessions. As is evident from the evaluation report from this workshop, participants were somewhat overwhelmed with the amount of information

presented at the workshop, did not see this program directly of value to them, and therefore did not rate this workshop as high as did the participants of the workshop in Boston.

Nevertheless, a number of San Francisco participants did rate the workshop as beneficial and indicated their interest in developing energy performance contracting projects in their housing agencies.

5. OVERALL ASSESSMENT OF INITIAL WORKSHOP PROGRAM

5.1 STRENGTHS AND WEAKNESSES

The energy performance contracting Training Workshop program, sponsored to date by DOE, has been successful in a number of key areas. Among them are the following.

- It has exposed PHAs and IHAs to energy performance contracting - what it is and how it works.
- It has provided a forum for them to meet and learn from experts in the energy performance contracting field.
- It has informed them about federal laws and regulations which affect energy in public housing.
- It has exposed them to energy and financing professionals who can assist them in undertaking energy performance contracts for their facilities. These professionals include ESCOs, equipment manufacturers, financial institutions, utility companies, energy engineers and consultants, educators and trainers, and other PHAs who have taken lead roles in energy performance contracting.

There are a number of weaknesses as well, including the following:

- The workshop program to date has had limited geographic coverage; only three out of ten HUD regions have been reached with the intensive workshops.
- There is not a great deal of data on actual energy performance contracts signed, energy measures installed, and energy and dollar savings realized, in part because so few energy performance contracts have been initiated.
- There has not been enough emphasis, within the workshop format as it now exists, on information sharing among workshop participants, about their potential energy projects, their questions about performance contracting, and their interests in putting this financing method to work in their housing authorities. Speakers and resource persons have done most of the talking; participants need to do more information sharing among themselves.
- There has been no evaluation procedure developed for routine follow-up or evaluation once the workshop program has been completed to determine the short- and long-term success of the workshop program.

5.2 KEY ISSUES

As one workshop participant put it, this program has provided "a good beginning." Excellent information has been provided to start the process, personal contacts have been provided to use as technical resources, a number of PHAs have taken advantage of ORNL technical assistance, and supplemental information packages have been sent to all participants.

However, there remain a number of key issues which need to be resolved before further workshops are undertaken. They include:

- the extent of HUD's ability to continue the workshop program in selected federal regions;
- the availability of continued technical assistance and information, including the availability of case study materials and contact persons to allow interaction among PHAs and IHAs who are just beginning the energy performance contracting process, those who are in process, and those who have successfully or unsuccessfully completed their projects;
- the extent to which energy performance contracting can be integrated into the "normal operating procedures" for PHAs and HUD; and
- the extent of HUD's ability to monitor and evaluate the quality of its workshop program, to continually improve it, and to evaluate its impact on energy consumption in public housing.

6. RECOMMENDATIONS

6.1 IMPROVING THE WORKSHOP PROGRAM

ORNL and Energetics recommend that the following improvements be made in the workshop program, assuming that additional workshops are sponsored by HUD:

Agenda Content

Revise the workshop format so that the sessions are more interactive between participants and speakers/resource persons. Use case studies and "hands-on" activities, such as actual development of an RFP, or development of a project description, to create interest and allow participants to actually work through the performance contracting process with on-site technical assistance. This might require participants to come to the workshop with data and information on one or more buildings needing energy modifications. This, in itself, would create more interest and excitement among participants if they see the possibility of actually accomplishing something with one of their own public housing projects.

Continue to provide an information base at the workshop, but make the presentations somewhat shorter so that participants and speakers/resource persons can spend most of their time during the workshop working with their case study examples.

Make tenant education and water conservation key parts of the agenda. Both issues are important for successful energy performance contracting in public and Indian housing. Awareness needs to be raised about these issues in the context of energy performance contracting opportunities.

ESCO Involvement

Continue to encourage energy service company participation in the workshop program, particularly ESCOs which currently work in the public housing market or are interested in doing so. It is important that HUD and DOE not be perceived as directing work toward only one such company, despite that company's qualifications and track record in this field.

Utility Involvement

Continue to encourage public and private utility company participation in the workshop program, as both participants and speakers/resource persons. As noted above, utility companies now offer DSM programs, many of which incorporate financial and technical assistance to their customers. Utility support for public housing energy rehabilitation can be one element of a performance contracting project. PHAs and IHAs can potentially take advantage of such programs and need to be informed about this opportunity.

Follow-up Technical Assistance and Continuing Communication

Provide technical assistance, through in-house or contract resources, to housing authorities that begin the energy performance contracting process. Initiating a performance contract can be confusing and complicated to a housing authority not experienced in energy conservation or performance contracting. HUD should provide or arrange for technical assistance for such efforts as project selection, RFP preparation, and evaluation.

Continuing, regular communication should also be established with PHAs and IHAs who have participated in the training. In this way, HUD can be provided with data and information on the status of energy performance contracting throughout the country (and, by inference, the impact of the training on these efforts). PHAs and IHAs can also be provided with regular information about other agencies involved in the training as well as technical, programmatic, and administrative information on energy performance contracting. As other workshops are held throughout the country, they should be evaluated in terms of the training provided and the longer-term impact on PHA's energy use.

6.2 FUTURE RECOMMENDATIONS

ORNL and Energetics recommend to the DOE/HUD Initiative that the following actions be taken to both expand upon and improve the workshops on energy performance contracting.

- Expand the workshop program to at least four more HUD regions, including Region II (New York), Region III (Philadelphia), Region IV (Atlanta), and Region V (Chicago). Region VI (Dallas) could be added as a separate regional training site, or be combined with Atlanta.
- Modify the workshop program so that it is more interactive among participants and speakers/resource persons, using case studies and tutorials.
- Publish case studies or project reports on energy performance contracts already initiated in public housing, whether or not they were completed under the HUD waiver (prior to publication of the final HUD regulations). The primary focus of these studies or reports would be on energy measures installed, energy and dollar savings realized, and funding sources.
- If funding can be found, initiate an *Energy Performance Contracting Newsletter* specifically for those involved in public housing. This can be published on a quarterly basis with an initial mailing list of those participating in the workshops.
- Coordinate energy performance contracting activity with other energy efficiency actions undertaken by PHAs and IHAs. Performance contracting

is just one of the programs available to PHAs and IHAs to improve the energy efficiency of their developments.

- Stress the important role public housing tenants play in improving energy efficiency. Include information on incentives for tenants to cooperate in energy performance contracts and how to make tenants more energy aware.
- Develop a standardized evaluation methodology and program to evaluate the success of the workshop program in terms of performance contracting indicators (i.e., number of RFPs written and advertised, number of responses, types of energy projects/measures in specific public housing units, and energy and dollar savings realized).

APPENDIX A.

Region I Agenda

ENERGY PERFORMANCE CONTRACTING TRAINING WORKSHOP

**SPONSORED BY
U.S. DEPARTMENT OF ENERGY
U.S. DEPARTMENT OF HOUSING & URBAN DEVELOPMENT**

**AGENDA
OCTOBER 27-29, 1992**

Day 1 - October 27th

8:00 - 8:30 am Registration

8:30 - 9:30 am Welcoming Remarks

*Jeannette Brinch, Energetics
Conference Chairperson
Bernard Manheimer, Deputy
Director, Energy Division, HUD
Headquarters
Hugh Saussy, Director, Boston
Support Office, DOE
John Mastropietro, Regional
Administrator, HUD Region I
Doris Desautel, Director of Public
Housing, HUD Region I*

9:30 - 10:00 am Introduction

The DOE-HUD Initiative on Energy
Efficiency in Housing - What It
Means For Public Housing

*Ernest Freeman, Sr. Program Manager,
Existing Buildings Research, Office
of Building Technologies, DOE
Headquarters*

10:00 - 10:30 am Energy Performance Contracting in
Public Housing - What It Is, How It
Works

*James Kolb, Energy Division,
Oak Ridge National Laboratory*

10:30 - 10:45 am Break

10:45 - 11:45 am A Comparison: Performance Contracting
vs. Conventional Bid and Spec for
Energy Improvements

*David Birr, Energy & Public
Housing Consultant, Chicago, IL*

Noon - 1:00 pm

Lunch

1:00 - 2:00 pm

The HUD Performance Funding System

*John Comerford, Director, Financial
Management Division, PIH HUD
Headquarters*

- What the New Performance Contracting Regulations Allow
- Financial Incentives for PHAs to Initiate Performance Contracts

2:00 - 3:15 pm

Sources of Project Funding

Moderator: *Patti Donahue,
Donahue & Associates*

Panelists: *Bruce Wall, Northeast
Utilities, Hartford, CT*

*Linda Jensen, HEC,
Boston, MA*

*Jim Carey, Citizens
Conservation Corporation*

3:15 - 3:30 pm

Break

3:30 - 4:30 pm

HUD Approval of Performance Contracts

Moderator: *William Thorson,
Director, Maintenance
& Operations Division,
PIH, HUD Headquarters*

Panelists: *Rob Lloyd, Procurement
Analyst, Contracts Office,
OPC, HUD Headquarters*

*Peggy Mangum,
Statistician, Financial
Management Division,
PIH, HUD Headquarters*

*John Karwowski, Director,
Regional Contracting Div.
HUD, Region 1*

4:30 - 4:45 pm

Day's Wrap-up

6:15 - 7:15 pm

Social Hour - Cash Bar - Light Refreshments

Dinner on Your Own

Day 2, October 28th

9:00 - 9:15 am

Introduction to Day 2

**Purpose of Day's Activities
Accomplishments of Day 1
Charge to Participants**

***Bernard Manheimer, Deputy
Director, Energy
Division, CPD, HUD Headquarters***

9:15 - 10:45 am

Small Group Sessions

**A. Energy Rehab Project
Identification**

**Session Chairperson:
*Lillian Kamalay, Project
Manager, Citizens
Conservation Corporation***

***James Kolb, Oak Ridge National
Laboratory***

***Charles Ashmore, Utility Specialist,
Maintenance & Operations Division,
PIH, HUD Headquarters***

**B. ESCO Selection - RFP, Proposal
Evaluation, and Contract
Negotiation**

**Session Chairperson:
*Rob Lloyd, Procurement Analyst,
Contracts Office, OPC, HUD
Headquarters***

***Patti Donahue, Donahue &
Associates***

C. Sources of Project Funding

**Session Chairperson:
*Jim Carey, Citizens
Conservation Corporation***

Linda Jenson, HEC, Boston, MA

D. Project Monitoring

**Session Chairperson:
*Rich Trebelhorn, Policy Analyst,
Policy Office, PIH, HUD Head-
quarters***

***David Birr, Energy and Public
Housing Consultant***

***Bill Barnetson, Director of Training
NAHRO***

10:45 - 11:00 am

Break

11:00 - 12:30 pm

Small Group Sessions

- A. Energy Rehab Project Identification
- B. ESCO Selection - RFP, Proposal Evaluation, and Contract Negotiation
- C. Sources of Project Funding
- D. Project Monitoring

12:30 - 1:30 pm

Lunch

Speaker: *Stephanie Suttles*,
Chicago PHA

Topic: "The Chicago Performance Contracting Project"

1:30 - 3:00 pm

Small Group Sessions

- A. Energy Rehab Project Identification
- B. ESCO Selection - RFP, Proposal Evaluation, and Contract Negotiation
- C. Sources of Project Funding
- D. Project Monitoring

3:00 - 3:15 pm

Break

3:15 - 4:45 pm

Small Group Sessions

- A. Energy Rehab Project Identification
- B. ESCO Selection - RFP, Proposal Evaluation, and Contract Negotiation
- C. Sources of Project Funding
- D. Project Monitoring

4:45 - 5:00

Day's Wrap-up

6:00 - 7:00 pm

Social Hour - Cash Bar - Light Refreshments

Dinner on your Own

Day 3, October 29th

8:30 - 8:45 am	<u>Introduction to Day 3</u> Charge to Participants	<i>Bernard Manheimer, Deputy Director, Energy Division, CPD, HUD Headquarters</i>
	Technical Assistance for PHAs from Oak Ridge National Laboratory	<i>Jim Kolb, Oak Ridge National Laboratory</i>
8:45 - 10:15 am	<u>Panel: Putting It All Together</u> <u>How Performance Contracting Can Make Money for your PHA</u>	<i>Steve Morgan, Executive Director, Citizens Conservation Corporation and Jeff Lines, TAG Associates</i>
	<u>Preparing Your Operating Budget to Incorporate Performance Contracts</u>	<i>Howard Gordon, CPA Andover, Massachusetts</i>
	<u>How Performance Contracting Worked for Us</u>	<i>Bernard Fitzpatrick, Executive Director Danbury Housing Authority, Danbury, Connecticut</i>
10:15 - 11:15 am	<u>Reports from Small Group Sessions A, B, C & D</u>	
11:15 - 11:30 am	<u>Adjourn - Concluding Remarks</u>	<i>Ernest Freeman, Sr. Program Manager Existing Buildings Research, Office of Building Technologies, DOE Headquarters</i>
1:00 - 4:00 pm	<u>Performance Contracting/PFS Administration for HUD Officials</u>	

APPENDIX B.

Region IX/X Agenda

ENERGY PERFORMANCE CONTRACTING TRAINING WORKSHOP

SAN FRANCISCO, CALIFORNIA

**SPONSORED BY
U.S. DEPARTMENT OF ENERGY
U.S. DEPARTMENT OF HOUSING & URBAN DEVELOPMENT**

**AGENDA
JUNE 9-11, 1993**

Wednesday, June 9, 1993

7:30 - 8:30 a.m. Registration and Continental Breakfast

8:30 - 9:30 a.m. **Welcoming Remarks**

*Jeannette Brinch, Workshop Chairperson, Energetics, Incorporated
Bernard Manheimer, Deputy Director, Energy Division, Office of
Environment & Energy, HUD
Julian Fitzhugh, Director, Office of Public Housing, San Francisco
Regional Office, HUD*

9:30 - 10:00 a.m. **Introduction: The DOE-HUD Initiative on Energy Efficiency in
Housing -What it Means for Public Housing**

*Ernie Freeman, Senior Program Manager, Existing Buildings Research
Program, DOE*

10:00 - 10:30 a.m. **Energy Performance Contracting in Public Housing - What It Is,
How It Works**

*Jim Kolb, Buildings Research Division, Oak Ridge National Laboratory
(ORNL)*

10:30 - 10:45 a.m. Break

10:45 - 11:45 a.m. **A Comparison: Performance Contracting vs. Conventional Bid &
Spec**

David Birr, Energy & Public Housing Consultant, Chicago, Illinois

12:00 - 1:00 p.m. Luncheon

*Speaker: Brian Boyle, Conservation Solutions, Los Angeles
Topic: "Water Conservation Measures for Public & Indian
Housing"*

1:15 - 2:15 p.m. **The HUD Performance Funding System (PFS)**

John Comerford, Director, Division of Financial Management, HUD

2:15 - 3:15 p.m. **Energy Rehab Project Identification**

*Jim Kolb, Oak Ridge National Laboratory
Lillian Kamalay, Director of Public Housing Operations, Citizens
Conservation Corporation*

3:15 - 3:30 p.m. **Break**

3:30 - 4:30 p.m. **HUD Approval of Performance Contracts**

Moderator: *Bill Thorson, Director, Maintenance & Supply Division,
Office of Construction, Rehabilitation & Management, HUD*

Panelists: *Peggy Mangum, Statistician, Office of Financial
Management, HUD
Margaret Stephens-Seller, Contracting Officer, HUD Region
IX*

4:30 - 5:00 p.m. **Day's Wrap-Up**

5:15 - 6:30 p.m. **Reception/No-Host Bar**

Dinner on Your Own

Thursday, June 10, 1993

7:30 - 8:30 a.m. Continental Breakfast

8:30 - 8:45 a.m. **Intro to Day 2**

Jeannette Brinch, Energetics, Incorporated
Bernard Manheimer, HUD

8:45 - 10:30 a.m. **Small Group Sessions**

ESCO SELECTION - RFP, PROPOSAL EVALUATION, AND CONTRACT NEGOTIATION

Session Chairperson: *Patti Donahue, Donahue & Associates*
Resource Persons: *Jim Kolb, Oak Ridge National Laboratory*

SOURCES OF PROJECT FUNDING

Session Chairperson: *Lillian Kamalay, Citizens Conservation Corporation*
Resource Persons: *Rebecca Marsh, Vice President, Access Public Funding*
John Comerford, HUD

PROJECT MONITORING

Session Chairperson: *Rich Trebelhorn, Policy Analyst, Division of Policy & Evaluation, HUD*
Resource Persons: *David Birr, Energy & Public Housing Consultant, Chicago, IL*
Peggy Mangum, HUD

10:30 - 10:45 a.m. Break

10:45 - 12:30 p.m. **Small Group Sessions**

ESCO Selection - RFP, Proposal Evaluation, and Contract Negotiation
Sources of Project Funding
Project Monitoring

12:30 - 1:30 p.m. Luncheon

Speaker: *Stephanie Suttles, Director, Section 8 Program, Chicago Public Housing Authority*
Topic: **"The Chicago Performance Contracting Project"**

1:45 - 3:30 p.m. **Small Group Sessions**

ESCO Selection - RFP, Proposal Evaluation, and Contract Negotiation
Sources of Project Funding
Project Monitoring

3:30 - 3:45 p.m. Break

3:45 - 4:30 p.m. Day's Wrap-Up; Reports From Small Group Sessions

Dinner on Your Own

Friday, June 11, 1993

7:30 - 8:30 a.m. Continental Breakfast

8:30 - 8:45 a.m. Intro to Day 3
Jeannette Brinch, Energetics, Incorporated
Bernard Manheimer, HUD

8:45 - 10:30 a.m. Panel: Putting It All Together

How Performance Contracting Can Make Money for your PHA

Steve Morgan, Executive Director, Citizens Conservation Corporation

Preparing Your Comprehensive Grant Plan to Incorporate Energy Performance Contracting

Bill Thorson, HUD

How Utility Companies are Working With Housing Authorities to Save Energy

Representatives From Pacific Gas & Electric and Southern California Edison

10:30 - 10:45 a.m. Break

10:45 - 11:45 a.m. Tenant Education and Participation in Energy Efficiency

Yvonne Ladson, Ladson Associates

12:00 - 1:00 p.m. Luncheon

1:15 - 2:15 p.m. Roundtable: Everything You Wanted To Ask But Did Not Until Now

All Presenters

2:15 - 2:45 p.m. Adjourn/Concluding Remarks

Ernie Freeman, DOE

Bill Thorson, HUD

Jeannette Brinch, Energetics, Incorporated

Bernard Manheimer, HUD

3:00 - 4:30 p.m. Performance Contracting/PFS Administration for HUD Officials

PIH Headquarters Staff

APPENDIX C.

Region I Letter of Invitation

1~2~3~

4~

Dear 1~3~:

In your position as a housing authority (HA) Executive Director, you know that energy costs have a major impact on your residents' living environment and your operating expenses. Housing Authorities currently spend over \$1 billion annually on utilities for public and Indian housing developments, and the reduction of utility costs in public and Indian housing is critical. By taking advantage of recent revisions to the Performance Funding System (PFS) regulations, HAs now have significant monetary incentives to improve the energy efficiency of public and Indian housing and support HA employee training, resident education and other utility cost reduction programs. The U.S. Departments of Energy (DOE) and Housing and Urban Development (HUD) are offering you the opportunity to learn about these innovative changes.

On behalf of DOE and HUD, I am pleased to invite you to attend a 2-1/2 day training workshop on the revised regulations and energy performance contracting. Additional representatives from your housing authority may attend as space permits. The workshop is scheduled for **October 27-29, 1992, at the Lafayette Swissotel in Boston, Massachusetts.**

The goal of this workshop is to familiarize housing authorities with the new utility cost reduction incentives of the PFS regulations with primary emphasis on energy performance contracting. The change to the regulations encourages HAs to undertake energy conservation improvements that reduce utility consumption and allows HAs to retain monetary savings that result from non-HUD financed energy improvements. One of the primary methods for taking advantage of the revised regulations is performance contracting, which is an innovative financing technique that uses cost savings from reduced energy consumption to pay the cost of implementing energy conservation measures.

The training program is designed to be intensive and informative. You will return to your authority with the tools you need to implement energy performance contracting. There will be an emphasis on small group sessions led by energy, finance and housing officials who know the new regulations, as well as the ways in which HAs can successfully undertake performance contracts. **(A copy of the tentative agenda is included with this letter.)**

HUD and DOE are inviting Executive Directors of HUD Region I HAs with 500 or more units. The training is targeted to HA Executive Directors or, should you be unable to attend, your finance or operations manager. Others who are expected to attend include HUD officials, DOE officials from New England, energy service companies and energy professionals from state agencies.

Please return the enclosed registration form by September 29, 1992. Our workshop contractor, Energetics, Inc. is handling the administrative details for the workshop. Any questions you have about the workshop should be directed to them at the telephone number noted on the form. **The workshop fee of \$120.00 will cover direct costs, including lunches, receptions and refreshments.** A favorable rate of \$88.00 has been negotiated for your stay at the Lafayette Swissotel. Room reservations should be made directly with the hotel at 1-800-621-9200. When making reservations, please mention that you will be attending this training.

HUD and DOE are committed to helping you improve energy efficiency in your public housing developments, while taking advantage of the very significant incentives provided in the new regulations. This workshop will provide you with the opportunity to learn from professionals and other housing authorities that have successfully implemented energy performance contracts. I hope that you will be able to attend.

Very Sincerely Yours,

Joseph G. Schiff
Assistant Secretary

Enclosures

APPENDIX D.

Regions IX/X Letter of Invitation

1~

2~

3~

Dear 4~:

On behalf of the U.S. Departments of Energy (DOE) and Housing and Urban Development (HUD), I am pleased to invite you to attend a three-day training workshop on revisions to the Performance Funding System (PFS) regulations which encourage energy performance contracting for public/Indian housing. The workshop is scheduled for June 9-11, 1993, at the Sir Francis Drake Hotel in San Francisco, California. This is the second such training workshop for public housing agencies and Indian housing authorities (HA). The first was held in October, 1992 in Boston, Massachusetts.

As a HA Executive Director, you know that energy costs have a major impact on your residents' living environment and your operating expenses. HAs currently spend over \$1 billion annually on utilities. The reduction of utility costs is critical. The revisions to the PFS regulations provide significant monetary incentives for HAs to improve energy efficiency and support HA employee training, resident education and other utility consumption reduction programs.

The goal of this workshop is to familiarize HAs with the new energy conservation savings incentives of the PFS regulations which focus on energy performance contracting. The PFS revisions encourage HAs to undertake energy conservation improvements that reduce utility consumption and allow HAs to retain monetary savings that result from non-HUD financed energy improvements. One of the primary methods for taking advantage of the revised regulations is performance contracting, which is an innovative financing technique that uses cost savings from reduced energy consumption to pay the cost of implementing energy conservation measures.

The training program is designed to be intensive and informative. You will return to your HA with the tools you need to implement energy performance contracting. There will be an emphasis on small group sessions led by energy, finance and housing officials who know the new regulations, as well as the ways in which HAs can successfully undertake performance contracts. (A synopsis of the agenda highlights is included with this letter.)

HUD and DOE are inviting Executive Directors of HAs in HUD Regions IX and X with 500 or more units. The training is targeted to HA Executive Directors or, should you be unable to attend, your finance or operations manager. Additional representatives from your HA may attend as space permits. Others who are expected to attend include HUD and DOE officials from the two federal regions, utility company representatives, energy service companies and energy professionals from state agencies.

Please return the enclosed registration form by May 26, 1993. Our workshop contractor, Energetics, Incorporated, is handling the administrative details for the workshop. Any questions you have about the workshop should be directed to them at the telephone number noted on the form. The workshop fee of \$110.00 will cover direct costs, including lunches, one reception and refreshments. We also have negotiated a favorable rate of \$92.00 per night for your stay at the Sir Francis Drake Hotel. Room reservations should be made directly with the hotel at 1-800-227-5480. When making reservations, please mention that you will be attending this workshop.

If you have a disability and require special accommodations to take this training, please notify either Ms. MaryLee Blackwood or Ms. Jan Brinch at Energetics, Inc., on (410) 290-0370. Please contact them promptly to specify your needs.

HUD and DOE are committed to helping you improve energy efficiency in your public/Indian housing developments, while taking advantage of the very significant incentives provided in the new regulations. This workshop will provide you with the opportunity to learn from professionals and other HAs that have successfully implemented energy performance contracts. I hope that you will be able to attend.

Sincerely,

Michael B. Janis
General Deputy Assistant Secretary
for Public and Indian Housing

Enclosures

APPENDIX E.

Letter to State Energy Offices - Region I

Name
Address

Dear:

On behalf of the U.S. Department of Energy in cooperation with the U.S. Department of Housing and Urban Development, I would like to invite you to attend a 2-1/2 day training workshop on energy performance contracting for public housing in New England. **This workshop is scheduled for October 27-29, 1992, at the Lafayette Swissotel in Boston, Massachusetts.**

The goal of this workshop is to familiarize public housing authorities and others interested and involved in improving the energy efficiency of public housing with the new utility cost reduction incentives which are available as a result of the 1990 Housing Act. DOE and HUD are cosponsoring this workshop under the auspices of the **DOE-HUD Initiative on Energy Efficiency in Housing**, which has been underway for over two years. The Initiative is an important component of the National Energy Strategy, and one to which we are fully committed.

The incentives encourage housing authorities to undertake energy conservation improvements that reduce utility consumption and allow them to retain monetary savings that result from non-HUD financed energy improvements. One of the primary methods for taking advantage of the incentives is performance contracting, which, as you know, is an innovative financing technique that uses cost savings from reduced energy consumption to pay the cost of implementing energy conservation measures.

Because energy performance contracting is a concept with which state energy offices have been familiar for some time, I know you will want to be aware of this training program. By working cooperatively with HUD officials in your state, you may be able to encourage and assist energy performance contracting in public housing.

The training program is designed to be intensive and informative. There will be an emphasis on small group sessions led by energy, finance, and housing officials who know the law, the implementing regulations, and the ways in which housing authorities can undertake performance contracts. **A copy of the tentative agenda is included with this letter.**

HUD has already invited Executive Directors of HUD Region I housing authorities with 500 or more units. Others who are expected to attend include HUD and DOE officials from Headquarters and Region I, representatives from energy service companies, and private utilities from New England.

If you would like to attend, please return the enclosed registration form as soon as possible. Our workshop contractor, Energetics, Inc., is handling the administrative details for the workshop. Any questions you have about it should be directed to them at the telephone number noted on the form. **The workshop fee of \$120.00 covers direct costs, including continental breakfasts, lunches, receptions, and refreshments.** A favorable room rate of \$88.00 has been negotiated with the Swissotel for workshop participants. Room reservations should be made directly with the hotel at **1-800-621-9200**. When making reservations, please mention that you will be attending this workshop.

DOE and HUD are committed to improving the energy efficiency of public and other federally supported housing throughout the country. Utilization of energy performance contracting is one useful method of doing so. I hope you will be able to attend the workshop to share your knowledge of performance contracting in such a way as to encourage its use in the public housing arena.

Sincerely,

Theodore Kapus
Director, Office of Building Energy Research
Office of Building Technologies
CE-42

APPENDIX F.

Letter to State Energy Offices - Regions IX/X



Department of Energy

Washington, DC 20585

APR 19 1993

Mr. Charles Imbrecht
California Energy Commission
1516 9th Street, MS-31
Sacramento, CA 95814

Dear Mr. Imbrecht:

On behalf of the U.S. Department of Energy, in cooperation with the U.S. Department of Housing and Urban Development, I would like to invite you to attend a 2-1/2 day training workshop on energy performance contracting for public housing in Regions IX and X. This workshop is scheduled for June 9-11, 1993, at the Sir Francis Drake Hotel in San Francisco, California.

The goal of this workshop is to familiarize public housing authorities and others interested and involved in improving the energy efficiency of public housing with the new utility cost reduction incentives which are available as a result of the 1987 Housing Act. DOE and HUD are co-sponsoring this workshop under the auspices of the DOE-HUD Initiative on Energy Efficiency in Housing, which has been underway for over three years. The Initiative is an important component of the Energy Policy Act, and one to which we are fully committed.

The incentives encourage housing authorities to undertake energy conservation improvements that reduce utility consumption and allow them to retain monetary savings that result from non-HUD financed energy improvements. One of the primary methods for taking advantage of the incentive is performance contracting, which, as you know, is an innovative financing technique that uses cost savings from reduced energy consumption to pay the cost of implementing energy conservation measures.

Because energy performance contracting is a concept with which state energy offices have been familiar for some time, I know you will want to be aware of this training program. By working cooperatively with HUD officials in your state, you may be able to encourage and assist energy performance contracting in public housing.

The training program is designed to be intensive and informative. There will be an emphasis on small group sessions led by energy, finance, and housing officials who know the law, the implementing regulations, and the ways in which housing authorities can undertake performance contracts. A synopsis of the agenda is included with this letter.

HUD has already invited Executive Directors of housing authorities in HUD Regions IX and X with 500 or more units. Others who are expected to attend include HUD and DOE officials from Headquarters and Regions IX and X, representatives from energy service companies, and utility company representatives from the two regions.

If you would like to attend, please return the enclosed registration form as soon as possible. Our workshop contractor, Energetics, Inc., is handling the administrative details for the workshop. Any questions you have about it should be directed to them at the telephone number noted on the form. The workshop fee of \$110.00 covers direct costs, including continental breakfasts, lunches, one reception, and refreshments. A favorable room rate of \$92.00 (single occupancy) and \$110.00 (double occupancy) has been negotiated with the Sir Francis Drake Hotel for workshop participants. Room reservations should be made directly with the hotel at 1-800-227-5480. When making reservations, please mention that you will be attending this workshop.

DOE and HUD are committed to improving the energy efficiency of public and other federally supported housing throughout the country. Utilization of energy performance contracting is one useful method of doing so. I hope you will be able to attend the workshop to share your knowledge of performance contracting in such a way as to encourage its use in the public housing arena.

Sincerely,

A handwritten signature in black ink, appearing to read 'Theodore Kapus', is written over a horizontal line.

Theodore Kapus, Director
Office of Building Energy Research
Energy Efficiency and Renewable Energy

APPENDIX G.

Attendees & Speakers - Region I

DOE/HUD
Energy Performance Contracting Training Workshop

Lafayette Swisshotel
Boston, Massachusetts

October 27-29, 1992

ATTENDEES

Mr. Charlie Ashmore
Utility Specialist
Office of Construction, Rehabilitation & Management
Maintenance & Supply Division
U.S. Department of Housing & Urban Development
451 7th Street SW, Room 4124
Washington, DC 20410
(202) 708-4703

Mr. Bill Barnetson
Director of Training
Nat'l Assoc. of Housing & Redevelopment Officials
1320 18th Street NW
Washington, DC 20036
(202) 429-2960

Mr. Paul R. Bergeron
Director of Finance
Quincy Housing Authority
80 Clay Street
Quincy, MA 02170
(617) 847-4350
FAX: (617) 770-2876

Mr. David M. Birr
7410 N Hoyne
Chicago, IL 60645
(312) 465-4613

Ms. Jeannette Brinch
Energetics, Inc.
7164 Columbia Gateway Drive
Columbia, MD 21046
(410) 290-0370
FAX: (410) 290-0377

Mr. James Carey
Director of Business Development
Citizen's Conservation Corporation
530 Atlantic Avenue
Boston, MA 02210
(617) 423-7900

Ms. Cynde Cassidy
Assistant to Director of Finance
Fall River Housing Authority
P.O. Box 989
Fall River, MA 02722
(508) 675-3559
FAX: (508) 677-1396

Mr. Len Charney
Director, Planning & Development
Cambridge Housing Authority
270 Green Street
Cambridge, MA 02139
(617) 497-6800

Mr. Shung Chiu
Engineer
U.S. Department of Housing & Urban Development
26 Federal Plaza
New York, NY 10278
(212) 264-3206
FAX: (212) 264-9834

Ms. Theresa Civic
Energy Planner, Programs Group
Massachusetts Division of Energy Resources
100 Cambridge Street, 15th Floor
Boston, MA 02202
(617) 727-4732, Ext. 37

Mr. Robert Colonnese
Construction Manager
Norwalk Housing Authority
24 Monroe Street
S Norwalk, CT 06856-0508
(203) 838-8471
FAX: (203) 838-6535

Mr. John Comerford
Director, Financial Management Division
U.S. Department of Housing & Urban Development
451 7th Street SW, Room 4210
Washington, DC 20410
(202) 708-1872

Mr. John Counter
Modernization Coordinator
Holyoke Housing Authority
475 Maple Street
Holyoke, MA 01040
(413) 534-0261
FAX: (413) 536-1175

Mr. Larry Dawson
Director of Fiscal Operations
Bangor Housing Authority
161 Davis Road
Bangor, ME 04401
(207) 942-6365

Mr. George Day
Accountant
Hartford Housing Authority
475 Flatbush Avenue
Hartford, CT 06106
(203) 275-8428
FAX: (203) 232-1804

Ms. Patti Donahue
Donahue & Associates
2349 Gull Lane
Sarasota, FL 34237
(813) 955-9109

Mr. Stephen B. Dorr
Director of Administration & Finance
Manchester Housing & Redevelopment Authority
198 Hanover Street
Manchester, NH 03104
(603) 624-2100
FAX: (603) 624-2103

Mr. Gerald S. Doyle, Sr.
Executive Director
Pittsfield Housing Authority
65 Columbus Avenue
Pittsfield, MA 01201
(413) 443-5936
FAX: (413) 443-7294

Mr. Kenneth Edwards
PH Manager
Manchester Housing & Redevelopment Authority
198 Hanover Street
Manchester, NH 03104
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FAX: (603) 624-2103

Mr. Mark Finks
Energy Division
Office of Environment & Energy
U.S. Department of Housing & Urban Development
451 7th Street SW, Room 7244
Washington, DC 20410
(202) 708-2504

Mr. Joseph S. Finnerty
Executive Director
New Bedford Housing Authority
P.O. Box 2081
New Bedford, MA 02741
(508) 997-4806
FAX: (508) 997-4807

Mr. Bernard Fitzpatrick
Executive Director
Danbury Housing Authority
2 Mill Ridge Road
Danbury, CT 06811

Mr. Robert Fleig
Finance Director
Nashua Housing Authority
101 Major Drive
Nashua, NH 03060-4783
(603) 883-5661
FAX: (603) 598-3750

Mr. Gary Foster
Assistant Executive Director, Operations
Wilmington Housing Authority
P.O. Box 899
Wilmington, NC 28402-0899
(919) 341-7700
FAX: (919) 341-7760

Ms. Sandra I. Frank
Financial Specialist
U.S. Department of Housing & Urban Development
OPH-2PH
26 Federal Plaza
New York, NY 10278
(212) 264-9753
FAX: (212) 264-9834

Mr. Curt Freedman
CMF, Inc.
24 Ridge Road
Longmeadow, MA 01106
(413) 567-9703

Mr. Ernest Freeman
Senior Program Manager, Existing Buildings Research
Office of Building Technologies
Office of Conservation & Renewable Energy, CE-421
1000 Independence Avenue SW, Room 5E-098
Washington, DC 20585
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Mr. Richard Goodison
Modernization Specialist
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100 Broad Street, P.O. Box 5955
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Mr. Howard L. Gordon, CPA
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Mr. Paul T. Graziano
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198 Hanover Street
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Ms. Kim Greaves
Budget Specialist
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Mr. Thomas M. Guzzi
Director of Finance
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22 Clinton Avenue
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(203) 977-1400
FAX: (203) 977-1419

Ms. Olive Harbor
Director of Administration/Controller
Bridgeport Housing Authority
150 Highland Avenue
Bridgeport, CT 06604
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FAX: (203) 384-9041

Ms. Donna Isaac
Contract Specialist
U.S. Department of Housing & Urban Development
10 Causeway Street, 3rd Floor
Boston, MA 02222-1092
(617) 565-6986
FAX: (617) 565-5257

Ms. Linda J. Jensen
Vice President, Finance & Administration
HEC Energy Services
24 Prime Parkway
Natick, MA 01760
(508) 653-0456

Ms. Lillian Kamalay
Director of Public Housing Operations
Citizens Conservation Corporation
530 Atlantic Avenue
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(617) 423-7900

Mr. Richard H. Kennedy
Assistant Executive Director, Operations
Holyoke Housing Authority
475 Maple Street
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APPENDIX H

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Sir Francis Drake Hotel on Union Square
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June 9-11, 1993**

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APPENDIX L

Evaluation Form

**EVALUATION FORM
ENERGY PERFORMANCE CONTRACTING TRAINING WORKSHOP**

This evaluation form is designed to help DOE AND HUD assess the success of the Energy Performance Contracting Training Workshop, so that additional programs can effectively meet the needs of public housing agencies. Please answer all questions and feel free to add additional comments.

1. Did this training workshop provide you with adequate information on energy performance contracting procedures?

Yes No

Comments: _____

2. What parts of the program did you like the best? (Rank 1 - 3)

— Plenary Sessions
— Small Group Sessions

3. Please rate the content and presentation of the Plenary sessions.

E = Excellent G = Good F = Fair P = Poor

	Content	Presentation
Energy Performance Contracting in Public Housing - What It Is, How It Works		
The HUD Performance Funding System		
Sources of Project Funding		
HUD Approval of Performance Contracts		
A Comparison: Performance Contracting vs. Conventional Bid and Spec for Energy Improvements		
How Performance Contracting Can Make Money for your PHA		
Preparing Your Operating Budget to Incorporate Performance Contracts		
How Performance Contracting Worked for Us		

4. Please rate the content and presentation of the Small Group sessions.

E = Excellent G = Good F = Fair P = Poor

	Content	Presentation
Energy Rehab. Project Identification		
ESCO Selection - RFP Proposal Evaluation & Contract Negotiation		
Sources of Project Funding		
Project Monitoring		

Comments: _____

5. Was there enough time for you to informally discuss these topics with other participants?

Yes No

Comments: _____

6. What suggestions do you have for subsequent training programs on energy performance contracting in public housing?

7. What is your position in your organization?

8. Name & organization (optional)

Thank you for filling out this evaluation.

APPENDIX J.

Evaluation Results - Region I

EVALUATION

Energy Performance Contracting Training Workshop

OVERVIEW DATA

Number of housing authorities attending workshop		21
Percentage in relation to invitation list		62%
Number of PHA participants	45	
Number of Energy Office participants	2	
Number of utility participants	3	
Number of HUD Headquarters staff	7	
Number of HUD Region I staff	5	
Number of HUD Field Office staff	4	
Number of likely respondents	66	
Number of evaluation forms returned	25	
Percentage response rate	37.9%	

TABULATIONS FOR EACH QUESTION

1. Did this training workshop provide you with adequate information on energy performance contracting procedures?

Yes	22
No	--
Yes & No	1
N/A	2

Comments:

It would help to have this workshop longer.

The workshop should be held more often.

Handout information needs to be more organized.

Perhaps you should consider starting with how we can integrate existing programs with this new area, i.e., start with comp grant then move on. We need to focus on relating programs with available resources.

For an overview, now we will learn more when doing.

Should have been held in another location - maybe 3 or 4 separate sessions in different regions or HUD area offices.

Provided basics - most info presented from ESCO perspective.

For the time available for such a complex subject.

A good exercise, however, materials should have been sent out beforehand.

A "real life" example of Tables 6.1 and 6.2 of the Guidebook would be informative. Also, a simple package illustrating the entire process would be helpful. Suggest strengthening the financing aspects - with end sessions recapping and combining comments from individual sessions.

Additional data on project scope & technical assistance needed as program continues.

Described a framework that all departments of the housing authority will contribute to.

Very good.

Too broad & general. Complications with M.G.L. Chapter 30B hiring services for more than 3 years.

2. What parts of the program did you like the best?

This question was confusing. Participants had three number rankings to give to two topics, plenary sessions and small group sessions. There was confusion as to whether ranking #1 was the highest or lowest. Thus, this question was discarded in the evaluation.

3. Please rate the content and presentation of the Plenary sessions.

E = Excellent G = Good F = Fair P = Poor N/A = No answer

A. Energy Performance Contracting in Public Housing - What It Is, How It Works

Content

E 8
G 12
F 4
P 0
N/A 1

Presentation

E 8
G 12
F 3
P 1
N/A 1

B. The HUD Performance Funding System

Content

E 5
G 11
F 7
P 1
N/A 1

Presentation

E 5
G 11
F 7
P 1
N/A 1

C. Sources of Project Funding

Content

E 6
G 10
F 8
P -
N/A 1

Presentation

E 6
G 11
F 6
P 1
N/A 1

D. HUD Approval of Performance Contracts

Content

E 3
G 18
F 2
P -
N/A 2

Presentation

E 4
G 15
F 4
P -
N/A 2

E. A Comparison: Performance Contracting vs. Conventional Bid and Spec for Energy Improvements

Content

E 8
G 14
F 2
P 1
N/A -

Presentation

E 13
G 9
F 2
P 1
N/A -

F. How Performance Contracting Can Make Money for your PHA

Content

E 7
G 15
F 2
P 1
N/A -

Presentation

E 7
G 15
F 2
P 1
N/A -

G. Preparing Your Operating Budget to Incorporate Performance Contracting

Content

E 4
G 15
F 5
P 1
N/A -

Presentation

E 5
G 15
F 4
P 1
N/A -

H. How Performance Contracting Worked for Us

Content

E 5
G 15
F 5
P -
N/A -

Presentation

E 8
G 13
F 4
P -
N/A -

4. Please rate the content and presentation of the Small Group sessions.

A. Energy Rehab Project Identification

Content

E 8
G 12
F 4
P -
N/A 1

Presentation

E 9
G 12
F 2
P 1
N/A 1

B. ESCO Selection - RFP Proposal Evaluation & Contract Negotiation

Content

E 8
G 14
F 1
P 1
N/A 1

Presentation

E 10
G 13
F -
P 1
N/A 1

C. Sources of Project Funding

Content

E 7
G 9
F 6
P 2
N/A 1

Presentation

E 8
G 9
F 5
P 2
N/A 1

D. Project Monitoring

Content

E 9
G 13
F 2
P -
N/A 1

Presentation

E 9
G 13
F 2
P -
N/A 1

Comments:

Needs to be at least 3 hours per section to get the information from all the groups.

Came across well - could use more time.

Elements were rated "good" rather than "excellent" based on the amount & complexity of the material versus the time available to present the material. This could easily be a week-long seminar.

Suggest more explanation as to what, when, and how Authority does takes action.

It is my opinion that PHA's will need extensive help to implement energy saving performance contracts, and procurement will take an extensive amount of time. Speakers need lesson in economics and need better business experience.

Much more detail is needed.

5. Was there enough time for you to informally discuss these topics with other participants?

Yes 19

No 5

N/A 1

Comments:

Most of the time the sections were too short for the info being given and informal discussion was cut short.

This is a new and complex program; more time for discussion would help.

The small groups & social hours provided this time. Panel members were willing to discuss issues at these times as well as at breaks, etc.

6. What suggestions do you have for subsequent training programs on energy performance contracting in public housing?

Change it from a 2 1/2 day program to 4 1/2 days and extend the small group session to at least 3 to 4 hours each as there is just too much information to jam it into a short time. Also give your guest speaker at lunch more time for her presentation.

More group sessions; legal counsel from HUD/State. Better info on funding, technical assistance.

Bi-annual workshops to follow. ESCO contract signing & project status.

As more energy projects are undertaken, track success. Issues such as HUD/DOE policies which involve administrative process & guidelines should be described more fully.

More interaction with HUD field office and regional personnel.

Should the interest of PHAs warrant, I suggest more comprehensive, in-depth, illustrative workshops be held in each region. They should, of course, be focused on the specific conditions of each region as much as possible.

The format, presentation, staff expertise & diversity, obvious planning and material combine to make this the best workshop/seminar (for the time allowed) I have attended, both from the governmental & private sectors. Suggest that small group sessions be limited to specific subject.

Should have a follow-up 1 day session - preceded by ability to send data/questions in for expert review.

Rooms, especially for plenary sessions, were woefully inadequate and detracted from conference (too cramped, etc.)

Detailed presentations by successful PHAs who have gone through the whole process.

Invite more ESCOs to participate. PHAs need to hear from other ESCOs. CCC is not the only ESCO working in multi-family housing.

Should probably be held at HUD area offices.

Assure authorities reps that the process is not overwhelming. Give authorities info on what to do now to get their data base in line and correct. Allow a three hour time block with questions to encourage maintenance to discuss what their role is and how important it is. Massachusetts has a housing authority maintenance association which could assemble most authorities.

Need evaluation on facility for training: restaurant excellent, location great, training rooms too small for entire group, and should not split groups between floors.

Do not tie improvements with financing or state that you can only participate if you borrow funds.

Impact on Section 504 Requirements

Provide guidelines for baseline adjustments on electric rate.

Provide clearer guidelines for energy audit. Is it required to meet the CFR requirements?

Project Identification: I see a problem in an unqualified employee of a PHA identifying the source of energy consumption. As a result, ESCOs will unquestionably perform energy audits to determine if there is a significant need for capital investment (For example: tenant abuse.)

Clarify PFS vs. EPC

Send out a flyer which should specify who should have attended and the purpose of energy performance contracting.

Having lunch included was an excellent idea. And having a speaker at lunch was a great way to get in more information.

State purpose of program, then go to small group sessions, so people may better formulate questions for the specialist.

Go in to much more detail on PFS and monitoring and project funding.

Presentations were too one-sided in favor of HUD interests and did not realistically represent the interests of potential ESCO's. I feel that a conflict of interests exists with the electric utility companies and the public interest.

APPENDIX K

Evaluation Results - Region IX/X

EVALUATION

ENERGY PERFORMANCE CONTRACTING TRAINING WORKSHOP SAN FRANCISCO, CALIFORNIA

June 9-11, 1993

Number of Workshop Participants: (Housing Authorities, Regional HUD and DOE Personnel, ESCOs, and Others)	62
Number of Evaluation Forms Returned:	26
Percentage Return:	42%

1. Did this training workshop provide you with adequate information on energy performance contracting procedures:

Yes	25
No	--
Fair	1

Comments:

I feel that the cross mix of departments and companies was very helpful.

Very informative.

Provided enough info to conclude it will not have application in Indian housing, at least in Region IX.

A good beginning.

Adequate information to start the process, personal contacts to use as resources.

The workshop should provide more information on PFS.

Adequate information provided on each subject. Energetics/HUD did a good job in organizing and presenting information.

It gave me a better understanding of what energy performance contracting entails.

Small group sessions should concentrate on interested group instead of rotating to all sessions.

This is a dry subject that is hard to make exciting. However, this conference was very well organized. All speakers were well prepared and knowledgeable in their subjects -- GOOD JOB!

Very thorough job. Armed me with background to go back and develop program.

One of the most informative and intense sessions attended.

2. Confusing question - responses not tabulated.

3. Please rate the content and presentation of the Plenary sessions.

Energy Performance Contracting in Public Housing - What It is, How it Works

Content:	Excellent	4
	Good	16
	Fair	4
	Poor	0
	NA	2

Presentation:	Excellent	3
	Good	16
	Fair	5
	Poor	0
	NA	2

The HUD Performance Funding System

Content:	Excellent	4
	Good	17
	Fair	3
	Poor	0
	NA	2

Presentation:	Excellent	6
	Good	14
	Fair	4
	Poor	0
	NA	2

Energy Rehab Project Evaluation

Content:	Excellent	2
	Good	18
	Fair	3
	Poor	1
	NA	2

Presentation:	Excellent	1
	Good	19
	Fair	4
	Poor	0
	NA	2

HUD Approval of Performance Contracts

Content:	Excellent	2
	Good	21
	Fair	1
	Poor	1
	NA	1

Presentation:	Excellent	2
	Good	21
	Fair	2
	Poor	0
	NA	1

A Comparison: Performance Contracting vs. Conventional Bid and Spec

Content:	Excellent	7
	Good	12
	Fair	6
	Poor	1
	NA	0

Presentation:	Excellent	10
	Good	9
	Fair	6
	Poor	0
	NA	1

Preparing Your Comprehensive Grant Application to Incorporate Energy Performance Contracting

Content:	Excellent	2
	Good	13
	Fair	9
	Poor	0
	NA	2

Presentation:	Excellent	1
	Good	18
	Fair	5
	Poor	0
	NA	2

How Utility Companies are Working With Housing Authorities to Save Energy

Content:	Excellent	2
	Good	13
	Fair	5
	Poor	2
	NA	4

Presentation:	Excellent	1
	Good	16
	Fair	5
	Poor	1
	NA	3

Tenant Education and Participation in Energy Efficiency

Content:	Excellent	2
	Good	20
	Fair	2
	Poor	1
	NA	1

Presentation:	Excellent	1
	Good	12
	Fair	10
	Poor	2
	NA	1

4. Please rate the content and presentation of the Small Group sessions.

ESCO Selection - RFP Proposal Evaluation & Contract Negotiation

Content:	Excellent	11
	Good	12
	Fair	1
	Poor	0
	NA	2

Presentation:	Excellent	6
	Good	16
	Fair	2
	Poor	0
	NA	2

Sources of Project Funding

Content:	Excellent	6
	Good	13
	Fair	4
	Poor	0
	NA	3

Presentation:	Excellent	5
	Good	15
	Fair	3
	Poor	0
	NA	3

Project Monitoring

Content:	Excellent	9
	Good	12
	Fair	2
	Poor	0
	NA	3

Presentation:	Excellent	11
	Good	8
	Fair	3
	Poor	0
	NA	4

Comments:

Very good, learned a lot.

Could use a little more time for each of these. Seemed sort of rushed.

Small group sessions should concentrate on interested group instead of rotating to all sessions.

Some info on ESCO selection, etc. was not in handout or the workbook. This would have been helpful.

More work should be done on how small/medium PHAs can benefit.

In the second small group session on ESCO selection, we could have used more time (presentation was rushed at the end).

Presentation (ESCO Selection) needed to be more closely tied to Guidebook, Workbook, and handouts.

Not enough time in small group sessions.

Please have handouts in notebook match the presentation - or at least available on site.

General overview of subject but sparse on technical/specific/evaluative considerations.

Project monitoring was very insightful - TransAm example was very pertinent.

5. Was there enough time for you to informally discuss these topics with other participants?

Yes	22
No	3
NA	1

Comments:

But was OK - so much introductory information that format was needed.

Yes - it was a big help that there were a lot of breaks and that sessions were kept short.

Breaks between sessions and after workshop gathering was good.

There should be more time allowed for Q&A.

Excellent discussion groups.

6. What suggestions do you have for subsequent training programs on energy performance contracting in public housing?

Instead of forcing every participant through every small session, the seminar should be structure so that participants can eliminate one session if they are not interested.

HUD Performance System should be presented first since it sets the parameters of the total session. Some examples should be included for background and reference.

First day's presentation seemed very technical and not geared for a diverse group of people.

Hold on a regional level to allow focus on state concerns rather than host.

As experience grows, have more authorities present and less consultants.

In the future, include case studies to follow up with and listings of ESCOs consulting firms.

End workshop at 12:00 p.m. on the last day.

Perhaps more time should be allowed for discussion in small groups. More time allowed for small groups than plenary sessions.

Present actual case study on performance contracting. Focus realistic savings, applicability of performance contracting for particular HUD region (e.g. Region IX and X have smaller-size projects and most of the projects have tenant purchased utilities. Some projects don't even have meters - usually water meters. Current HUD PFS incentives do not apply to tenant purchased utilities. I judge that the performance contracting is not going to be too useful in these regions unless other HUD incentives or utility re-bid can be realized. Furthermore, the current funding level for Comp Grant for these regions are quite adequate. Why would these PHAs want to participate in this program?

Some attendees did not seem to understand the advantages of this program/system.

Concrete examples of mod benefits - cost savings - etc. may help.

How small to medium PHAs can benefit from this program.

Small group sessions are fine but certain questions or points that are raised in other sessions are not conveyed or shared to all groups. Depending upon the makeup of the group, certain points could be missed on related questions not asked.

Need more actual examples to get a better idea and guidance on these matters.

HUD Central needs to survey PHAs in the different regions and determine extent of central PHA paid utilities vs resident paid utilities and develop a program to serve this segment now that energy performance contracting has been fairly well addressed.

Program was well planned.

Provide more time on the saving to PHAs and what assistance can be received for HUD.

More case studies.

Having the participants list is very good - would appreciate everyone receiving an updated list, along with a list of potential ESCOs.

The "speaker" or "moderator" should repeat the questions asked by other members, so everyone can hear the question.

Present more detailed case study analyses of PHA projects.

Provide greater clarity on the interpretation of applicable HUD regulations, preferably in writing.

Possibly incorporate a case study to provide hands-on practice identifying projects, selecting ESCO and securing financing.

Overall was a very good workshop.

Show more actual examples if possible. Material on ideas and ways to work these items in conjunction with out PHA grants.

In the future more case study. I realize this was not possible for this session.

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