

**Energy Service Agreement  
Technical Review – PHA Self Managed  
HUD Review Checklist  
09-23-2010**

HUD Review Information

1. PHA Name: \_\_\_\_\_
2. Date ESA received for review: \_\_\_\_/\_\_\_\_/\_\_\_\_\_
3. ESA Review assigned to: (check one)
  - a.  HUD Field Office,  HUD Energy Center,  HUD Contractor
  - b. Review Person:
    - i. Name: \_\_\_\_\_
    - ii. Phone: \_\_\_\_\_
4. Date ESA Approved: \_\_\_\_/\_\_\_\_/\_\_\_\_\_

PIC Building and Unit Data

5.  A spreadsheet is provided in the HUD format, or similar, that lists building data for each project included in the contract.
6.  The submitted building and unit data matches the HUD PIC database.

Sample Documents / Guidance

- [HUD Cost Summary Form](#) – PIC Data

HUD Cost Summary Sheet

7.  A spreadsheet is provided in the HUD format, or similar, that lists each ECM measure by AMP / Group / project.
  - a. Energy Conservation Measure(s) (ECM) are listed by AMP.
  - b. Separate lines are to be provided for different funding sources and different Measurement and Verification methods.
  - c. Installation costs, soft costs and overhead and profit are to be listed separately.
  - d. Current utility rates must be shown to support the energy savings.
8.  Contract Amendments - If a contract is being amended, the revised HUD Cost Summary Sheet must show all ECMs and costs for the previously approved contract(s) and the proposed contract / amendment.

Sample Documents / Guidance

- [HUD Cost Summary Form](#)

#### Baseline Data

9.  A spreadsheet is provided in the HUD baseline data format, or similar, that lists the 52722 baselines and adjustments for each AMP Group / project.
10.  The Rolling Base Consumption Level (RBCL) is defined and in compliance with HUD requirements.
11.  All AMP baseline adjustments are clearly defined with supportive documentation and acceptable to the reviewer. See baseline review process for additional assistance.
12.  All modernization work performed by the PHA during the RBCL years have been reviewed to insure that energy improvements funded with HUD funds are not benefiting the baseline data. Adjustments to the baseline have been made as appropriate. Reviewer should review the appropriate PHA plans found at: <http://www.hud.gov/offices/pih/pha/>
13.  Narrative – The reviewer is to provide a written narrative defining the basis for their acceptance of baseline adjustments.

#### Sample Documents / Guidance

- [HUD Baseline Data Form](#)
- [Baseline Review Process](#)

#### Cost Reasonableness

14.  The PHA has provided documentation that they have reviewed and have performed a cost or price analysis as per their procurement policy and that all costs ( contract cost and annual fees) appear reasonable, reference 24 CFR 85.36 (f).

15. Cash Flow

- a.  The cash flow is positive over the term of the contract insuring that energy savings are sufficient to cover the contract costs including debt payment, annual fees and replacement costs.

24 CFR990.185 Requirements – “For a PHA to qualify for these incentives, the PHA must enter into a contract to finance the energy conservation measures, and must obtain HUD approval. Such approval shall be based on a determination that payments under a contract can be funded from reasonably anticipated energy cost savings. The contract period shall not exceed 20 years.”

Add-On Subsidy Incentive – The operating fund cost benefit is not an energy cost savings and should not be included in the cash flow.

- b.  Excess energy savings - 75% of the energy savings (over term of the contract) for the frozen rolling base incentive and resident paid utility incentive is used to pay the debt payment, annual fees and replacement cost.

16.  Documentation has been provided to support that all “escalated” utility rates are reasonable. Data should show historical utility rates for each utility for the same period as the projected contract term.

17.  Any PHA contributions of Operating or CFP funds have been reviewed and are in compliance with 24CFR990 requirements, including:

- a. Operating or CFP funds can not contribute to the energy savings.
- b. If operating or CFP funds are used, the ESCo cannot perform the A/E design and construction management services for these funds unless the scope of such services was clearly defined in the original RFP. The RFP would have to define the specific measures or a general category of work with a defined cost range.

18.  Central Office Cost Center (COCC) measures are funded by non-HUD funds.

## Resident Paid Utilities

19. Utility Allowances
- a. EXISTING utility allowances
    - i. Date of last revision: \_\_\_\_/\_\_\_\_/\_\_\_\_
    - ii. Methodology Used:  Statistical,  Engineering
    - iii. Supportive documentation provided:  Yes,  No.
  - b. PRE utility allowances
    - i. Do the PRE allowances differ from the EXISTING allowances?  
 Yes,  No. List average % difference \_\_\_\_\_
  - c. Energy Savings
    - i.  Energy savings (PRE utility allowance less Post utility allowance) are supported by M&V calculations; reference the M&V Guidelines.
    - ii. M&V Type: (check options that apply)
      1.  Option A,  Option B,  Option C,  Option D.

## Measurement and Verification Methodology

### HUD M&V Guidelines

- i. Option A – Retrofit Isolation with **Key** Parameter Measurement
  - ii. Option B – Retrofit Isolation with **All** Parameter Measurement
  - iii. Option C – Utility Data Analysis – *Recommend Approach*
  - iv. Option D – Calibration Computer Simulation – Requires HUD Approval.
20. M&V Type(s): (check all options used in contract)
- a.  Option A,  Option B,  Option C,  Option D.
21. Any verification methodology other than Option C must be approved by the reviewer based upon the HUD M&V Guidelines.
22. HUD may require an Independent 3<sup>rd</sup> party verify the yearly M&V for all stipulated energy savings funded by the add-on subsidy incentive.
23.  The reviewer has determined that all energy savings are reasonable.
24.  Stipulated savings – POST M&V reviews- The frequency of the POST M&V reviews for stipulated savings is:  First Year Only  Annually  Other -Please Specify
25.  Narrative – The reviewer is to provide a written narrative defining the basis for their determination of reasonable energy savings.

### Sample Documents / Guidance

- [HUD M&V Guidelines](#)

Heating Degree Day adjustments –

26.  HUD has approved the heating degree-day adjustment methodology.

HUD Approval Letter

27. The reviewer will develop a draft HUD approval letter in the recommended format. The letter is to list:

- a.  Housing Inventory - Listing of all AMPS included in the contract by Number, Project Number and Project Name.
- b.  Contract Costs – Summary of all contract costs.
- c.  1<sup>st</sup> Year Energy Savings – Summary of the 1<sup>st</sup> year energy savings by utility.
- d.  Cash Flow – A detailed cash flow of the contract showing, loan amount, rebates, interest amount, and all income / expenses throughout the term of the contract.
- e.  Baseline Consumption Levels – Show the baseline utility consumption levels by utility type and AMP. Utility baseline consumption levels should be shown for both the frozen rolling base incentive and the add-on subsidy incentive.
- f.  Resident Paid Utility Incentive
  - i. Traditional approval – Show all utility allowances for resident paid utilities.
  - ii. Resident Paid Add-on subsidy approval – Show the add-on subsidy amounts for each year of the HUD incentive.
- g. Add-On Subsidy Incentive
  - i.  Show the add-on subsidy amounts for each year of the HUD incentive.
  - ii.  For add-on subsidy , stipulated savings
    - 1. Show the M&V calculations to verify energy savings on a yearly basis; **OR**
    - 2. Require that the PHA hire an independent 3<sup>rd</sup> party reviewer to verify the energy savings as per the HUD M&V Guidelines.

Reviewer Signature / Narrative

The reviewer certifies that they have reviewed this ESA in accordance with provisions of this checklist. Further, the reviewer certifies that in their determination, that all baseline adjustments and all energy savings are reasonable.

Reviewer Signature: \_\_\_\_\_, Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Reviewer Name:(print)\_\_\_\_\_

HUD Approval Process

Final approval of this ESA will be subject to a panel review where the reviewer presents the ESA to the Panel for review. Three signatures, the reviewers and two panel members are required for HUD to approve this ESA.

1. Reviewer contacts the OFO-Energy Center to schedule a review.
2. The OFO-Energy Center will establish a review time and panel membership.
3. Reviewer submits electronic copies of the following documents to all panel members:
  - a. Signed HUD Review Checklist.
  - b. HUD Cost Summary Sheet
  - c. HUD Baseline Review Sheets
  - d. Cash Flow(s)
  - e. Utility Allowance Reviews
  - f. Other supportive information
  - g. Draft HUD Approval Letter
4. Narrative – The reviewer is to provide a written narrative defining the basis for their acceptance of baseline adjustments and their determination of reasonable energy savings.

Final ESA Approval

The following panel members have reviewed the above ESA and authorize approval of such:

Panel Member #1

Reviewer Signature: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Reviewer Name:(print)\_\_\_\_\_

Panel Member #2

Reviewer Signature: \_\_\_\_\_ Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Reviewer Name:(print)\_\_\_\_\_

File Maintenance

The reviewer is to assemble the Energy Performance Contract file in the format prescribed in the completeness review checklist.

Approval Comments