

Guidance on required energy audits for recipients of Capital Fund Recovery Competition (CFRC) Grants Category 4, Option 2: Creation of Energy Efficient, Green Communities: Moderate Rehabilitation.

What is the purpose of this guidance?

This guidance provides Public Housing Agencies (PHAs) and HUD Field Offices with a reminder that they must complete both a baseline energy audit and a post energy audit per the American Recovery and Reinvestment Act of 2009 (“the Recovery Act”) for Capital Fund Recovery Competitive (CFRC) Grants. It also clarifies what required information must be collected.

Why is a baseline and post energy audit required?

On February 17, 2009, the President signed the Recovery Act. The Recovery Act required that \$1 billion be distributed through a competitive process.

Under the Notice of Funding Availability (NOFA) PHAs who received a CFRC Category 4, Option 2: Creation of Energy Efficient, Green Communities: Moderate Rehabilitation Grant must complete both a baseline energy audit and a post energy audit. Section VI.B.2.f.(4)(b)(ii)(E) (page 116) of the NOFA states “ For Category 4 CFRC Grants, HUD will conduct an evaluation of the effectiveness of the approaches proposed and will require the grantee collect and provide baseline and post project energy consumption at the building level, contract scopes and cost.”

Additionally the Annual Contribution Contract (ACC) amendment executed for CFRC grants states that PHAs must complete all NOFA requirements

Which PHAs are affected by this guidance?

This applies to PHAs awarded a Category 4, Option 2 Competitive Grant established under the revised NOFA published on June 3, 2009.

Why are PHA’s required to perform a baseline and post energy audit?

Section VI.B.2.f.(4)(b)(ii)(E) (page 116) of the NOFA states “ For Category 4 CFRC Grants, HUD will conduct an evaluation of the effectiveness of the approaches proposed and will require the grantee collect and provide baseline and post project energy consumption at the building level, contract scopes and cost.” The ACC amendment executed for CFRC grants states that PHAs must complete all NOFA requirements

Who performs the Baseline Energy Audit?

An independent 3rd party, defined as either an Energy Savings Company (ESCO), Architectural/Engineer firm, local utility company, or other trade company. All PHAs

awarded a Category 4, Option 2 Grant must have a baseline energy audit completed by an independent 3rd party for any property being renovated with funds awarded as established in the NOFA under Section VI.B.2.f.(4)(b)(ii)(F) (page 116).

What should be included in the Baseline Energy Audit?

The audit must be an official document complete with letterhead of performing 3rd party. Audits should also include a list of potential energy conservation measures (ECM's) that the PHA may want to implement along with their potential payback. The audit must also clearly define how energy consumption following energy conservation retrofits will be measured to confirm intended reduction goals.

How are Baseline Energy Audits Calculated?

Energy audits must be calculated by either (1) using a minimum of one year's worth of utility bills (monthly or quarterly) with two to three years preferred, or (2) using computer modeling (i.e. DOE2 software). Energy consumption must be presented in British Thermal Units (BTU's) for both gas and electricity usage as instructed in the NOFA under Section VI.B.2.f.(4)(b)(ii)(F) (page 116). If replacing plumbing fixtures or appliances (i.e. refrigerators), present savings in either CCF/yr or annual savings in dollars with the use of Energy Star figures.

Who performs the Post Energy Audit?

It is preferred that the post energy audit be performed by the same party that completed the baseline audit, but it is not required. However, the same qualifications apply for the post audit as they do for the baseline audit. Following the completion of work performed with CFRC grant funds, Category 4, Option 2, all PHA's are required to have a post energy audit performed by an independent 3rd party in accordance with the guidelines established in the NOFA under Section VI.B.2.f.(4)(b)(ii)(H) (page 116).

How are Post Energy Audits Calculated?

Post energy audits must be calculated using at least one year of actual utility records. All PHA's should wait a minimum of one year following substantial completion of the facility and the building should be at a level of occupancy equal to or greater than it was prior to improvements before conducting the post energy audit. For example if substantial completion for a project was issued on 12/31/10 the first year of actual utility recording would take place between 1/1/12 and 12/31/12.

What should be included in the Post Energy Audit?

The audit must clearly define how energy consumption following energy conservation retrofits will be measured to confirm intended reduction goals. Utility consumption may be adjusted for conditions such as weather and occupancy if substantially greater, but PHA's are required to provide both adjusted and unadjusted levels along with the data used to make the adjustments. Strategies for weather adjustments must be consistent with

industry principles and clearly described in the post audit report. For further information and examples of how weather adjustments are made reference The *International Performance Measurement & Verification Protocol (IPMVP)* may be a useful reference on how weather adjustments are made.

What is the Independent Audit and is it different from the Post Energy Audit?

In addition to the post energy audit, all PHA's are required to substantiate proper installation of specified systems (i.e. geothermal, photovoltaic, cogeneration, etc.) through the certification of an independent audit in accordance with the guidelines established in the NOFA Section VI.B.2.f.(4)(b)(ii)(G) (page 116). It is separate from both the baseline and post energy audits.

What should be included in the Independent Audit?

The independent audit should include: 1) a description of the property, 2) equipment being reviewed, 3) and findings of the audit. If corrections were required as part of the initial independent audit, the auditor must document in writing when the rework was performed/completed along with the date of the final approval.

Why are Independent Audits required and who performs them?

Independent audits must be performed by a company/representative that is certified by the manufacturer of said system or by a national certification board pertaining to the specified system. It is required to ensure proper installation of complex systems.

What if the initial Independent Audit does not pass initial inspection?

If corrections were required as part of the initial independent audit, the auditor must document when the rework was performed/completed along with the date of the final approval in writing.

What are PHA's to do with the Independent Audit once complete?

This independent audit, along with validation that the auditor is approved by the manufacturer of the system being inspected or national certification board, should be retained by the PHA and must be available upon request.

Are there any reporting requirements?

There are no new reporting requirements. However, PHA's, in accordance with the criteria established in the NOFA, must continue to report quarterly the following information to HUD via the Recovery Act Management and Performance System (RAMPS):

- the number of units successfully developed/rehabilitated

- the number of units utilizing renewable energy sources
- the number of units developed/rehabilitated to provide safe/healthy living environments

Also, all PHA's must have the following available upon request:

- contract scopes and costs for all work scheduled to be completed on the site
- the cost of interventions per unit

CONTACTS: If you have any questions about the requirements of the baseline and/or post energy audit, please contact Derek Juhl, Engineer, Office of Capital Improvements, Public and Indian Housing at 202-402-2140 or at derek.t.juhl@hud.gov.

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