U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
WASHINGTON, DC 20410-5000

OFFICE OF PUBLIC AND INDIAN HOUSING

Special Attention of:

Public Housing Agencies
Public Housing Hub Office Directors
Public Housing Program Center Directors
Public Housing Division Directors
Regional Directors
Regional Environmental Officers
Field Environmental Officers and
Regional Energy Coordinators

NOTICE: PIH-2024-27

Issued: August 9, 2024

Expires: Effective until amended, superseded, or rescinded.

Cross References:
2 CFR Part 200
24 CFR § 965.305
24 CFR § 965.308
24 CFR § 965.506
24 CFR § 965.507
24 CFR § 990.170
24 CFR § 990.175
24 CFR § 990.180
24 CFR § 990.185
24 CFR § 990.190
PIH Notice 2008-22
PIH Notice 2009-16
PIH Notice 2011-36
PIH Notice 2016-22
PIH Notice 2023-17
HUD Handbook 7460.8 REV 2 (2/2007)

Subject: Guidance on Energy Performance Contracts

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1. PURPOSE

This Notice updates and supersedes Notice PIH 2011-36 and provides supplementary guidance on operating subsidy incentives to promote energy conservation with Energy Performance Contracts (EPCs). This Notice remains in effect until amended, superseded, or rescinded.

2. APPLICABILITY

This Notice applies to the public housing program and provides guidance under the Public Housing Operating Fund Program pursuant to 24 CFR part 990 and EPCs pursuant to 24 CFR part 965, Subpart C.

3. BACKGROUND

This Notice discusses the process and requirements for EPCs in public housing and provides a comprehensive definition and explanation of Energy and Water Conservation Measures. The Notice describes how public housing agencies (PHAs) can benefit from EPC incentives and savings through participation in the EPC Program.

The Public Housing Operating Fund Program provides funds for the operation and management of public housing. Per Section 9(e)(2)(C)(i) of the United States Housing Act of 1937 (42 U.S.C. 1437g(e)(2)(C)(i)), PHAs will receive "the full financial benefit from any reduction in the cost of utilities or waste management resulting from any contract with a third party to undertake energy

conservation improvements" through the Operating Fund Formula. The EPC Program implements this provision of the 1937 Act.

HUD's primary implementing regulation for EPCs is 24 CFR § 990.185.[1] This section of the regulation created incentives in the Operating Fund Formula, which provides a mechanism for PHAs to retain savings generated by their EPC. Pursuant to the regulation, a PHA may propose to employ one or more incentives in conjunction with an EPC up to 20 years:

a. Frozen Rolling Base Incentive (authorized under 24 CFR § 990.185(a)(1));
b. Resident-Paid Utility Incentive (24 CFR § 990.185(a)(2)); and/or
c. Add-On Subsidy Incentive (24 CFR §§ 990.185(a)(3) and 990.190(b)).

4. OVERVIEW OF CHANGES

This Notice significantly updates prior Notices on the EPC Program and utility cost reduction incentives by reorganizing the original content, integrating external resources, and adding supplemental guidance. The aim is to facilitate transparency by providing a complete and clear reference document. This should make the EPC Program more user-friendly for PHAs. This Notice also contains important policy clarifications, refinements, and modifications.

To ensure an effective EPC management, this Notice helps PHAs by:

- Describing the EPC Approval Letter and a six-month expiration for HUD's EPC approval if the PHA has not completed a financial closing within that timeframe. The expiration deadline is to ensure that EPC projects are implemented before the information for design and review becomes outdated.
- Elaborating on interplay between EPCs and the Rate Reduction Incentive (RRI).
- Updating the reporting period for all EPCs utilizing the Add-On Subsidy Incentive (AOS) so that all such EPCs approved after this Notice's publication will follow a utility reporting period of July 1 – June 30 and a funding period of January 1 – December 30.
- Clarifying the 75% Rule and the Lesser of Costs or Savings Rule, as well as the process of EPC Incentive Cross-Subsidization.

[1] The Energy Policy Act of 2005, Section 151 (119 Stat. 647), and the Consolidated Appropriations Act of 2008, Section 229 (121 Stat. 2438), amended the 1937 Act with respect to energy conservation in public housing. An Interim Rule (73 FR 61350) made amendments to the Public Housing Operating Fund Program regulations to reflect these statutory amendments. HUD fully implemented these amendments when it issued a Final Rule (74 FR 4638), effective February 25, 2009. Under this rule: (a) The maximum term of an EPC between a PHA and an entity other than HUD may be up to 20 years; and (b) If initially for a term less than 20 years, an existing EPC may be extended with HUD approval, without re-procurement of energy performance contractors, to a period of no more than 20 years, to allow additional Energy and Water Conservation Measures (ECMs).

- Clarifying when PHAs must update EPC Approval Letters due to removing units from the public housing inventory (e.g., by a conversion under Rental Assistance Demonstration) and providing detailed instructions on the processes and submittal requirements.

This Notice also clarifies flexibilities for PHAs to expand funding sources with respect to:

- Permissibility of using Public Housing Capital Funds to pay for EPC debt.
- Permissibility of using Capital Funds to pay for EPC Development Costs without reducing savings included in the EPC Cash Flow.
- Permissibility of including the Operating Fund Benefit in the EPC Cash Flow.

Moreover, the Notice provides a comprehensive definition and overview of Energy and Water Conservation Measures (ECMs) including Fuel Conversion ECMs, Renewable Energy ECMs, and Meter Consolidation ECMs among others. Key updates include guidance on use of cooling systems (including air conditioning, heat pumps, and other technologies) within an EPC, Life Cycle Cost Analysis (LCCA) guidance, and escalation rate guidance.

Finally, the Notice provides guidance that submitting Measurement and Verification (M&V) reports to HUD annually is not required. PHAs are required to retain these reports through the term of the EPC and provide them to HUD upon request, per 24 CFR 990.325. This Notice also establishes the requirement for PHAs to conduct an EPC Incentive Savings Verification annually and submit it to HUD by the deadline announced in HUD's annual Operating Subsidy Processing Notice.

A table of abbreviations and definitions are provided at the end of this Notice, see Appendix I and Appendix II.

5. INTRODUCTION TO ENERGY PERFORMANCE CONTRACTING

Energy Performance Contracting is a financing technique that uses energy/utility cost savings from reduced energy consumption to undertake financing used to pay the cost of installing ECMs. This financing mechanism uses tomorrow's energy and/or water savings generated from utility improvements to pay for today's facility upgrades. EPCs involve forecasts of future savings/costs and require ongoing management and oversight to realize those forecasts. To be approvable, EPCs must project a positive EPC Cash Flow. More specifically, projected EPC Savings must equal or exceed projected EPC Costs, such as debt service and replacement costs. When implementing an EPC, PHAs assume the risks for realizing projected EPC Cash Flow.

In the EPC program, PHAs either develop and implement cost-effective retrofits on their own or contract with companies called Energy Service Companies (ESCOs) to do so. The term ESCOs refers to entities who develop, design, and build projects that save energy, including energy engineering firms or other energy engineering consultants hired by the PHA to implement part or

all of an energy/utility project. The term EPC throughout this Notice will be used to describe energy/utility retrofit projects developed by both ESCOs and PHAs.

The EPC program requires that PHAs must identify and finance ECMs through an entity other than HUD by using EPC incentives to support the annual repayment of EPC costs.

5.1. Energy Services Companies (ESCOs)

ESCOs are entities that develop, design, and build EPC projects that save energy, including energy engineering firms. PHAs frequently (but not always) contract with ESCOs to develop and design their EPCs.

As part of their contracts with PHAs (called Energy Services Agreements or ESAs), ESCOs can guarantee the PHA's projected energy cost savings over the EPC term. PHAs should be aware that guaranteed savings and shared savings are negotiable provisions and that these guarantees are subject to limitations and risks. PHAs should carefully review the terms and conditions of any ESCO savings guarantee and consider how the ESCO's guarantee relates to the particular subsidy incentives at issue. PHAs may consult with energy engineering firms or attorneys to review ESCO proposals and contracts. PHAs should also be aware that the methodology used to determine any savings guarantees provided in the ESA are not the same as HUD's savings calculations and will not be used to calculate the eligibility amount of an EPC Incentive.

A PHA may also use an ESCO for HUD Capital Fund-related work; however, PHAs must follow the procurement requirements in 2 CFR part 200 and Department Handbook 7460.8 REV 2, dated 2/2007.[2] The final Energy Services Agreement must show itemized expenditures by project and site for ECMs and other funding sources.

A PHA with a self-developed project can retain an energy engineering firm and may purchase an insurance policy to cover its risks. Contract and policy language should be clear, articulating under what conditions losses are collectable under the contract. Investment Grade Energy Audit (IGEA) and insurance costs are eligible project costs.

5.2. HUD Review and Approval

PHAs must submit their EPC application packages via email to PIHEnergyBranch@hud.gov. Upon receipt of complete applications, it takes up to 60 business days for HUD to complete its review and issue an approval letter. Incomplete applications will be returned to the PHA. Major changes in an application during HUD's review will also result in the return of the application. The time period for HUD's review restarts upon the receipt of a complete or revised application.

[2] PHAs' procurements related to EPCs must take place under the applicable provisions of 2 CFR part 200, per 24 CFR § 965.308.

Upon approval of an EPC, HUD will issue an EPC Approval/Denial Letter that has, at minimum, the conditions of the EPC approval or disapproval and information providing the basis for the decision including all EPC Incentives through the term of the EPC in the case of approvals. Whether the EPC is self-developed by the PHA or developed using an ESCO, this Notice provides guidelines for both (1) first-time EPC application package submissions and (2) PHAs' submissions regarding additional phases or revisions to an existing EPC for other reasons. For new/first-time or revised EPC applications, HUD's EPC Letter Approval will expire within six (6) months of approval if the PHA has not completed the financial closing for the EPC. In limited circumstances, HUD may extend the expiration date. This expiration date is established to help ensure that EPC projects are implemented before the information used as a basis for design and review becomes outdated.

6. ENERGY AND WATER CONSERVATION MEASURES (ECMs) & INVESTMENT GRADE ENERGY AUDIT (IGEA)

Per statutory mandate, HUD provides financial incentives to PHAs "from any reduction in the cost of utilities or waste management resulting from any contract with a third party to undertake energy conservation improvements."[3] Energy conservation improvements are Energy and Water Conservation Measures (ECMs), which refer to measures that improve energy and/or water use efficiency, are Life Cycle Cost Effective, and involve energy and/or water conservation, retrofit activities, the use of renewable energy sources, the creation of solar production, geothermal, or cogeneration facilities.

Each ECM and its projected savings must be defined and specified in the Investment Grade Energy Audit (IGEA). All ECMs and their projected savings are subject to review and approval. Energy audits shall analyze all the energy conservation measures, and the payback period for these measures, which are pertinent to the type of buildings and equipment operated by the PHA. ECMs may include, but are not limited to, the following:

6.1. Traditional ECMs

Traditional ECMs are physical improvements to buildings that are designed to reduce energy or water consumption. In addition to conserving energy or water, they may shift a PHA's energy or water use from a traditional utility source to a lower cost alternative, which should enhance environmental protection or public health.

6.2. Supportive ECMs

Supportive ECMs involve the installation of hardware and software devices such as temperature sensors, lighting controls, HVAC controls, thermostats, performance monitors, and data displays that improve PHAs' data collection and analysis of utility consumption in public housing and

[3] 42 U.S.C. 1437g(e)(2)(C)(i).

their utilization building performance data. These ECMs cannot stand alone in an EPC and must be accompanied by other physical improvements.

6.3. Capital Improvements Related to ECM

This term refers to physical improvements that do not reduce utility consumption but are required to implement planned ECMs. These improvements must be conducted alongside planned ECMs for optimal efficiency or as required for health, safety, building code requirements, or environmental considerations. The cost of the capital work can be included in the HUD Cost Summary and EPC Cash Flow. For example, if a project involves an HVAC system included as an ECM, and the conduits are connected to the system, repairing, or replacing the conduits may be an eligible expense. The conduits are not a part of the ECM but may be a part of the project as enabling work to install the HVAC system. These types of activities are subject to HUD review and approval to ensure that they qualify as capital improvements related to ECMs based on the principles above.

6.4. Eligible ECMs

For an EPC to be approvable, the PHA or ESCO must reasonably anticipate that the proposed ECMs, in totality, will reduce consumption and produce energy and/or water cost savings that cover all acceptable project-related costs for the entire EPC term. Each ECM and its projected savings must be defined and specified in the IGEA. All ECMs and their projected savings are subject to review and approval. Additionally, to be eligible for HUD's EPC incentives, the ECMs cannot be installed prior to HUD approval.

Although all ECMs are expected to have payback period of no more than 20 years maximum, there is an exception to the rule: PHAs are allowed to use EPC Savings from short-payback ECMs to repay the ECMs that pay back longer than 20 years as long as the EPC project overall does not exceed 20 years. One factor that may affect whether savings can cover costs is the EPC's payback term. The simple payback is the total cost divided by the annual savings. Some ECMs have relatively high project costs but generate relatively low utility cost savings. These ECMs require a long payback period because it will take the PHA more time to realize sufficient savings to cover project costs. The ECMs with long payback periods must be offset by other ECMs that have shorter payback periods in a way that the total project payback period for all ECMs does not exceed 20 years.

Another factor is the EPC Cash Flow, which shows the Annual EPC Costs and Annual EPC savings during the term of the contract. The annual savings must be sufficient to pay the annual EPC debt each year through the term of the contract. To maximize an EPC's benefit, PHAs can use EPC Savings from short-payback ECMs to repay EPC Project Costs on long-payback ECMs.

Additionally, ECMs must be Life Cycle Cost Effective based on Life Cycle Cost Analysis. See Section 6.6.3, *Life Cycle Cost (LCC) Analysis*, for additional details.

There are many types of ECMs that are eligible for inclusion in an EPC, discussed further below. These include ECMs related to fuel conversion, renewable energy, meter consolidation, air conditioning, leased equipment, and programmable thermostats.

6.4.1. Fuel Conversion ECM

Fuel Conversion ECMs occur when a PHA switches a building's fuel source from one source to another (e.g., from natural gas to electricity). Fuel Conversion ECMs must meet HUD's definition of an ECM described above by reducing the cost of utilities and improving energy and/or water use efficiency to be included in an EPC.

The Rate Reduction Incentive is discussed more in Section 7.10, *Rate Reduction Incentive*. If the EPC initiates a special and significant effort beyond what is required by statute and/or regulation to reduce their utility rate, the PHA may be eligible for an RRI. However, HUD does not allow RRI actions that involve fuel conversions to a lower cost fuel unless it is a fuel conversion for an interruptible rate or other rate reduction actions in utilities as defined by PIH Notice 2023-17 or most current RRI notice.

6.4.2. Renewable Energy ECM

ECMs such as solar panels generate energy on site, improving energy efficiency. Additionally, renewable energy production generates savings by offsetting the energy a PHA would otherwise purchase. PHAs should note that renewable energy may be considered either as an energy conservation measure, hence, eligible to be included in an EPC, or as a rate reduction incentive, hence, eligible to be included in an RRI. However, PHAs cannot include renewable energy both as an ECM in an EPC and as a rate reduction in an RRI. PHAs must choose which incentive program to use.

6.4.3. Meter Consolidation as an ECM

PHAs may include costs from meter consolidation as a part of an ECM. Meter consolidation is combining PHA metered accounts into one or more larger master meter accounts, which can provide economies of scale and a lower utility rate. However, any potential savings from this consolidation are not included in the calculation of EPC Savings. Additionally, please note that any change from master metering to check metering is subject to 24 CFR § 965.401(Individually metered utilities) and § 965.402 (Benefit/Cost analysis).

6.4.4. Air Conditioning (A/C)

In this Notice, Air Conditioning (A/C) refers to a broader term that includes a variety of cooling systems including heat pumps, traditional air conditioning, and other types of cooling mechanisms. In addition to the general requirements for ECMs mentioned earlier, PHAs must meet two additional requirements to collect EPC Savings from Air Conditioning (A/C) ECMs.

First, the PHA must own the A/C units. Second, the new A/C units must be more efficient than what already exists. The following discusses how to apply these requirements:

a. The ECM provides A/C to common areas and the PHA pays for the utility:

   i. If the PHA is replacing existing A/C, the ECM's cost and savings can be included in the EPC.
   ii. If there was no existing A/C, the PHA can include the cost of installation and equipment in the EPC only if savings from other ECMs support the measure. The utility baseline must be adjusted to account for additional A/C usage.

b. The ECM provides A/C to dwelling units and the PHA pays for the utility:

   i. If the PHA is replacing existing A/C and the PHA cannot control the A/C inside the tenant's unit, then the EPC may include the ECM's cost and savings.
   ii. If the PHA is replacing existing A/C and the PHA can control the A/C inside the tenant's unit, then the PHA can only include the ECM cost in the EPC. Savings from other ECMs must support the measure. The PHA may surcharge tenants for their surplus A/C usage per 24 CFR § 965.506.
   iii. When replacing existing A/C and the PHA can control the A/C inside tenants' units, and the PHA adopts an Individual Relief Policy per 24 CFR § 965.508 and gives the required notice prior to requesting HUD's approval of the EPC, then both the ECM cost and savings are allowed in the EPC and the residents are granted relief from A/C usage surcharges for all units or buildings subject to the Individual Relief Policy.
   iv. If there was no existing A/C, then the EPC can only include the cost of installation and equipment. The utility baseline must be adjusted to account for additional A/C usage.

c. ECM provides A/C to dwelling units and residents pay for the utility:

   i. When replacing existing A/C and the PHA adopts an Individual Relief Policy per 24 CFR § 965.508 and gives the required notice before requesting HUD's approval of the EPC, then for all units or buildings granted relief, the ECM cost and savings are allowed in an EPC. A/C usage must be included in the utility allowance.
   ii. When replacing existing A/C and the PHA does not adopt an Individual Relief Policy per 24 CFR § 965.508, then only the cost of installation and equipment is allowed in the EPC. To do this, savings from other ECMs must support the measure.
   iii. When there was no existing A/C, then only the cost of installation and equipment is allowed in the EPC. Additionally, savings from other ECMs must support the measure.

Air Conditioning in EPC Scenario Summary Table

Who Pays the Utility Bills?	Usage Area	Replace Existing A/C?	Can PHA shut Tenant off A/C?	Individual Relief Policy 24 CFR § 965.508	Savings allowed in EPC Cash Flow?	Comments
Authority Paid	Common Area	Yes	n/a	n/a	Yes	
		No	n/a	n/a	No	*Baselines must be adjusted for additional A/C usage.*
	Resident Apt.	Yes	No	n/a	Yes	*PHA must allow A/C service for tenants with no surcharge.*
			Yes	Yes	Yes	
			Yes	No	No	*PHA must apply a surcharge per 24 CFR § 965.506*
		No	Yes	Yes	No	*Baselines must be adjusted for additional A/C usage.*
			No	No	No	
Resident Paid	Resident Apt.	Yes	PHAs cannot control Resident Paid Utilities	No	No	
				Yes	Yes	*A/C usage must be in utility allowance. PHA individual relief policy must be in effect, prior to HUD approval of EPC.*
		No		Yes	No	*A/C usage must be in utility allowance if individual relief policy applies to all units.*
				No	No	

6.4.5. Leased Equipment

Installing more efficient leased equipment (such as vending or laundry machines) in a public housing project can be an ECM, and the resulting savings can be included in the EPC Cash Flow if the utility bills are paid for by the project (by AMP) and the equipment's proceeds go to the leasing company or project. If the Central Office Cost Center (COCC) owns the machines, or the COCC pays for the utilities, it cannot be included in an EPC.

6.4.6. Programmable and Temperature Limiting Thermostats

Installing programmable and temperature limiting thermostats regardless of whether the PHA or the resident pays for the utility may be considered an ECM. EPCs may include savings from these thermostats when the PHA pays the utility bill and can establish setpoints for minimum and maximum temperatures. However, please note that HUD does not allow EPC Savings from programmable or temperature limiting thermostats in units where the resident pays the utility bill because the PHA cannot control the unit temperatures.

6.5. Ineligible ECMs

ECMs installed prior to HUD's approval are not eligible for HUD's EPC incentives. When reviewing the EPC applications for approval, HUD will apply the following criteria.

a. Capital improvements that do not improve energy or water use efficiency, or are not related to the planned ECMs, are not eligible. However, PHAs may use other funds to finance work occurring simultaneously with the installation of ECMs.
b. Maintenance cost savings are not eligible to be considered as ECMs. Maintenance costs are included in the Project Expense Level (PEL) component of the Operating Fund Formula. The PEL is an estimate of non-utility operating expenses for a well-run PHA. Maintenance costs cannot be isolated in the PEL, and therefore maintenance costs savings cannot be included in an EPC Cash Flow.
c. Under HUD's asset management rules, ECMs installed at COCCs may only be funded with COCC fee income or non-Federal funds. If a PHA is using the same ESCO to perform work at a COCC that it's using for a public housing EPC, the ESCO's work at the COCC must be separate from the public housing EPC and must be funded with COCC or non-Federal funds.
d. Upgrades to tenant-owned equipment, such as replacing lightbulbs in tenant-owned fixtures (e.g., desk lamps or tabletop lamps) or upgrading tenant-owned window A/C, are not eligible to be considered as ECMs.
e. ECMs that are not Life Cycle Cost Effective based on Life Cost Analysis are not eligible. See Section 6.6.3, *Life Cycle Cost (LCC) Analysis*, for additional details.

6.6. Other ECM-Related Considerations

6.6.1. Utility Rates

During the Project Design Stage (see *Section 9.2*), PHAs must identify utility rates to forecast savings for ECMs by project. PHAs should use the utility rates from Form HUD-52722. PHAs and ESCOs should validate rates and associated units of measure before submitting the application to HUD. PHAs cannot include ECMs for utilities that are reported as flat rate. PHAs and ESCOs must validate utility rates before submitting their EPC application package.

PHAs must also identify the utility rates during the Implementation and Repayment Stage (see *Section 9.5*). The utility rate is the total utility cost divided by total actual consumption by project/incentive.

Methodologies determining the utility rates vary based on the incentive types, as described in the chart below.

Incentive	Period	Utility Rate
Frozen Rolling Base or Add On Subsidy - C	Form HUD-52722 Reporting Period: *Jul 2023 - Jun 2024*	Form HUD-52722
Add On Subsidy - A	Prior to the publication of this Notice: *Jan 2023 – Dec 2023*	Utility Ledger provided by PHA
Add On Subsidy - A	After the publication of this Notice: *Jul 2023 - Jun 2024*	Form HUD-52722
Resident Paid Utility	Form HUD-52722 Reporting Period: *Jul 2023 - Jun 2024*	Form HUD-52722

6.6.2. Minimum Efficiency Standards

ECMs must meet, at a minimum, ENERGY STAR, WaterSense, or FEMP-designated standards in place at the time of initial construction. Subsequently, each round of replacement equipment installed through the EPC must meet the ENERGY STAR, WaterSense, or FEMP-designated standards that are current at the time of replacement. Any equipment that does not meet these standards is not eligible for inclusion in the EPC unless no such standard exists.

6.6.3. Life Cycle Cost (LCC) Analysis

When reviewing an EPC application, HUD requires PHAs to provide a Life Cycle Cost Analysis (LCC). LCC refers to the estimation of costs of proposed ECMs through their useful life in an EPC over the term of the contract. Any ECM with a useful life shorter than the contract term must account for equipment replacement as often as necessary to maintain the ECM's full functionality throughout the EPC term. In its review, HUD will check whether ECMs are Life Cycle Cost Effective. Life Cycle Cost Effective means that there are sufficient EPC Savings to cover EPC Project Costs. ECMs that are not Life Cycle Cost Effective will not be approved by HUD.

6.6.4. Useful Life

HUD will only consider providing savings incentives beyond an ECM's useful life if the EPC costs include a reliable estimate of the ECM's replacement cost. If the PHA's application does

not contemplate replacing equipment with a useful life that is shorter than the contract period, the savings stream from the equipment must stop at the end of its useful life. Existing equipment under an EPC can be replaced if the IGEA demonstrates that the existing equipment has less than 30% of its useful life remaining or that replacement is "Life Cycle Cost Effective."

6.6.5. Maintenance Cost

Carbon reduction technologies (e.g., cogeneration, solar, and wind technologies) that qualify as ECMs will likely require contracted operation and/or maintenance services over the term of the EPC. PHAs undertaking EPCs that include such ECMs may include the costs of extended service contracts as part of the EPC to the extent that the PHA can demonstrate the costs are unique to the new equipment and on top of the routine maintenance costs already accounted for under the Operating Fund Formula PEL.

6.6.6. Escalation Rate

Escalation rates are the rate of change in price for a particular good or service over time. In EPCs, escalation rates are applied to utility savings and various cost elements such as utility rates and replacement costs as well as services over the term of the contract. PHAs may use actual data from Form HUD-52722 or data from the U.S. Department of Labor, Bureau of Labor Statistics (BLS) Consumer Price Index for All Urban Customers (CPI-U) to determine the escalation rate.

The EPC Application can only include one blended escalation rate, not one for each separate utility and EPC cost. The blended escalation rate will be used to project the annual savings in each subsequent year in the EPC Cash Flow. HUD will not approve an escalation rate above 3.0% regardless of whether historical data calculations result in an escalation rate above 3.0%, as the risk to the PHA of savings not materializing increases dramatically.

6.6.7. Additional Phases of an EPC

If the PHA is adding ECMs and not extending the original term of the EPC, the escalation rate should be continued for the additional phase. HUD will review calculations in the original EPC.

If the EPC term is extended from the original approved EPC term (i.e., from 12 years to 20 years), the escalation rate should be evaluated using the lookback method but based on the length of the new EPC term. Additionally, the rate should be evaluated looking back from the first year of EPC incentives, not the year in which the extension occurs. For example, if a 12-year EPC is extended at any point to 20 years and the incentives began in 2015, the escalation rate should be evaluated using the lookback method for the period of 1996-2015 (which is the new term of 20 years).

7. EPC INCENTIVES

EPC incentives are funding elements in the Operating Fund formula that are intended to provide projects the financial benefit of consumptions savings generated by the EPC. Three types of incentives may be claimed through the EPC program: Frozen Rolling Base (FRB), Add-On Subsidy (AOS), and Resident Paid Utilities (RPU). Each option enables PHAs to receive financial incentives under the Operating Fund formula and use utility savings to pay for EPC Project Costs. EPCs may include one or more of the EPC incentives, if FRB, AOS, and RPU do not apply to the same utilities for the same ECMs. To receive HUD's approval for EPC incentives, PHAs must meet the EPC application requirements including ECM eligibility criteria discussed in earlier sections. The section below outlines key principles for EPC incentives followed by an overview of each EPC incentive option.

7.1. EPC Incentive Principles

7.1.1. EPC Incentives are for Public Housing Units

To qualify for EPC Incentives, ***all units*** in the EPC must be public housing units. Mixed income mixed finance projects are not eligible for the EPC incentives.

7.1.2. Maximum Term for EPC Incentives

The EPC incentives can only start after substantial completion of all the related ECMs. When the PHA claims its first incentive, which must be for the full year, the clock starts for all EPC incentives with a maximum of 20 years. It is at the PHA's discretion to decide when to begin claiming EPC incentives. PHAs often find it most beneficial to begin claiming all their EPC incentives in the first year.

7.1.3. PHAs are Encouraged to Maximize the ECMs in their EPC

PHAs must use at least 75% of their annual EPC Savings from FRB or RPU incentives to pay for their EPC debt, see Section 7.6, *Seventy Five Percent Rule*. Also, the amount of AOS incentive should be the equal of the lesser of EPC project costs or EPC savings from the applicable reporting period. Excess Savings from AOS incentives, however, may cross-subsidize shortfalls, i.e. Negative Savings, in other EPC incentives. Section 7.3, *Add-On Subsidy (AOS)*, provides detail on the Lesser of Costs or Savings Rule. The effect of these rules is to set a floor on the amount of incentive that must be used to invest in energy and water saving infrastructure.

7.1.4. EPC Incentives are based on Actual Utility Rates

HUD calculates EPC incentives based on actual rates rather than projected utility rates, therefore, the actual EPC incentive amount will be different from the forecast EPC incentive amount. See Section 9.5.3, *Reporting during the Implementation and Repayment Stage*, for details on how the rate is determined for each incentive type.

7.1.5. EPC Incentives are Project Level Incentives

EPC Incentives are awarded at the project level for PHA-paid utilities. Additionally, PHAs may simultaneously take advantage of EPC Incentives for PHA-paid utilities (i.e., FRB or AOS) and resident-paid utilities (i.e., RPU) at the same project.

7.1.6. Projects May Use Different EPC Incentives

If a project has more than one site, and the sites are separately metered, the PHA may use different EPC Incentives for the same PHA-paid utility at different sites. Each individually metered site is only entitled to one EPC Incentive per utility. For example, the following table depicts one project with two sites and two EPCs:

Project (AMP000001)	EPC-1	EPC-2
Site A Highrise	Frozen Rolling Base Water	N/A
Site B Garden Homes	N/A	AOS Option C Water

The only exception to the above is for utilities that are partially paid by the PHA and partially paid by residents (e.g., the PHA pays for electricity for the common areas, while residents pay for electricity in their units). In this scenario, an EPC could include an FRB or AOS incentive for the PHA-paid portion of a utility as well as an RPU incentive for the resident-paid portion). The purpose of this guidance is to ensure that there is no double counting of consumption savings or utility costs for any single project. PHAs cannot have separate EPCs at the same meter for the same utility.

7.1.7. PHAs are Responsible for Proration

After HUD approves a PHA's EPC application, the PHA should include approved EPC Incentives in its Operating Subsidy submission as described further in this section to receive its incentive. Because EPC Incentives are elements in the Operating Fund Formula, and the Operating Fund is subject to proration, the amount of additional funding the EPC Incentives result in depends on the proration rate. PHAs bear the risk of proration when structuring their EPC Incentives and EPC Cash Flow.

7.1.8. EPC Incentives are Subject to Annual Reviews

PHAs are required to complete annual Measurement and Verification (M&V) reports to facilitate their management of the EPC. M&V reports attempt to verify that annual EPC Savings are greater than annual EPC Project Costs based on the ESA or conditions in the EPC Approval Letter. These reports are discussed in detail in Section 10.1, *PHA Measurement & Verification Reporting Requirements*.

EPC Savings Calculator, which PHAs should conduct annually, use data in approval documents, actual utility information, and data from Operating Fund formula income to determine if EPC Incentives are reported correctly and to confirm the amount of subsidy that a PHA will receive through EPC Incentives. This process is also discussed later in this Notice, in Section 10.2, *EPC Incentive Savings Verification*.

7.2. Frozen Rolling Base (FRB)

With the FRB incentive, the Rolling Base Consumption Level (RBCL) for all affected utilities is frozen at its pre-EPC level following the installation of ECMs. The PHA retains 100% of the difference between the frozen RBCL and the cost of its actual utility consumption through the term of the EPC but must use at least 75% of this amount to pay off the EPC debt. Freezing the Rolling Base Consumption Levels locks in the utility consumption and enables the PHA to utilize EPC Savings from decreased energy consumption for the term of the contract.

7.2.1. FRB Baseline

The FRB baseline is the frozen RBCL based on the most recent Operating Subsidy Grant funding submission at the time of EPC application submission. The FRB baseline is determined by the average of rolling base years 1 through 3 (from Line 06 on the most recent Form HUD-52722). Like other EPC Baseline Consumption levels, the FRB baseline is subject to allowable adjustments in the EPC approval process and implementation stage, as discussed in Section 9.2.3, *Establishing the Utility Baseline*. HUD must approve all baseline adjustments. If the PHA is designated as a MTW PHA, see Section 16, *Moving to Work (MTW) Agencies and Self-Approved EPCs*.

PHAs should note that the frozen rolling base values are entered in Section 3 on HUD Form-52722 for the duration of the EPC. PHAs continue to report their actual consumption on Line 01 and actual costs on Line 16.

7.2.2. FRB Incentive Calculation

For Operating Subsidy eligibility for a project receiving the FRB incentive, the FRB incentive is calculated by multiplying the FRB baseline by the current Form HUD-52722 average utility rate on Line 17 for each associated utility. The cost savings are the difference between the frozen baseline and current utility consumption, multiplied by the applicable utility rate on Line 17 of Form HUD-52722:

FRB Incentive = (Frozen Baseline – Current Consumption) x (Form HUD-52722 Utility Rate)

The PHA may use Excess Savings generated by this benefit to pay for eligible Operating Fund expenses, subject to the 75% Rule as explained below.

At the end of the EPC term, the PHA must resume using the actual consumption level for the three previous years of the RBCL (Lines 02 through 04 on Form HUD-52722).

7.3. Add-On Subsidy (AOS)

The Add-On Subsidy incentive increases a PHA's total Operating Subsidy Grant eligibility amount, offering subsidies for loan costs associated with ECMs and other costs directly related to the EPC. The amount of the AOS incentive is limited to the lesser of EPC Project Costs or EPC Savings (the Lesser of Costs or Savings Rule) from the applicable reporting period, as determined in the EPC Incentive Savings Verification process. As a result, PHAs will not retain any Excess Savings associated with over-performing ECMs. However, Excess Savings from AOS incentives may cross-subsidize shortfalls, i.e. Negative Savings, in other EPC Incentives, as discussed later in this section. Additionally, PHAs receiving the AOS incentive may receive the Operating Fund Benefit (OFB) concurrently with the incentive.[4] The OFB is discussed in more detail in Section 7.8, *Operating Fund Benefit*.

The AOS is reported as "Add-on-subsidy (AOS) incentive energy performance contract (EPC)" in Section 3, Part A, Line 08 of Form HUD-52723. The actual utility consumption is reported annually on Form HUD-52722 and continues through the RBCL years on Lines 02 through 04.

At the end of the EPC term, the PHA will continue to report actual consumption on Form HUD-52722 and will no longer request an amount for "Add-on-subsidy (AOS) incentive energy performance contract (EPC)" on Form HUD-52723.

There are two primary M&V methods associated with calculating AOS savings: Option A and Option C.

7.3.1. AOS Option A

AOS Option A stipulates components of EPC consumption savings based on acceptable operational or performance parameters derived from field testing, historical values, manufacturer data, or technical sources acceptable to HUD. The stipulated consumption savings levels are in HUD's Approval Letter and may be modified during the Implementation and Repayment Stage based on the results of ongoing M&V inspections. Upon claiming the first incentive in relation to this EPC, the stipulated consumption savings will remain through the term of the EPC. PHAs may include AOS Option A in their EPC for ECMs where savings are anticipated to be equal to or less than 20% of the site or project's EPC Baseline Consumption levels. To claim the AOS Option A incentive, the PHA must enter the calculated AOS savings at Section 3, Part A, Line 08 of Form HUD-52723 up to the amount approved in the Letter.

[4] Per 24 CFR § 990.185(a)(3)(i) and § 990.170(c).

AOS Option A Savings = (Stipulated Consumption Savings) x (Utility Rate)

7.3.2. AOS Option C

AOS Option C uses a Reference Baseline to calculate EPC Savings. The Reference Baseline is determined by the average of 3 years' worth of historical utility consumption data (i.e., the RBCL found at Section 3, Line 06 on Form HUD-52722). The Reference Baseline is subject to adjustments in the EPC approval process, as articulated in Section 9, *EPC Stages*, of this Notice the Reference Baseline is identified in the EPC Approval Letter. To claim an AOS Option C incentive, the PHA must enter the calculated AOS savings at Section 3, Part A, Line 8 of Form HUD-52723.

AOS Option C Savings = (Reference Baseline – Current Consumption) x (Utility Rate)

7.3.3. Alignment of the AOS Reporting Period

To promote the consistency of utility reporting periods for all EPC Incentives and a more efficient Operating Subsidy process, all EPCs approved after this Notice's publication that utilize the AOS incentive must follow a utility reporting period of July 1 of the previous year – June 30 of the current year. In this way, the AOS incentive process will be aligned with the Operating Subsidy process.

PHAs with AOSs approved prior to this Notice may continue to follow the previous incentive reporting period of January 1 – December 31 and submit their EPC Incentive Savings Verifications by the deadline provided in HUD's annual Operating Subsidy Processing Notice. If a PHA with a previously approved EPC would like to follow the new reporting period, it must contact HUD to request the change. HUD will then issue a revised EPC Approval Letter reflecting the July through June reporting period.

7.4. Resident Paid Utilities (RPU)

The RPU incentive allows PHAs to claim an incentive for energy savings resulting from tenants' reduced utility consumption. RPU incentives are calculated by determining the difference between the site or project's pre- and post-EPC tenant utility allowances. The pre-EPC allowances are the baseline allowances for calculating the RPU. The pre-EPC allowances are set after the PHA reviews and updates its current allowances as prescribed in 24 CFR § 990.185(a)(2)(i). The post EPC allowances are based upon the projected savings from the ECM. The RPU savings included in the EPC Approval Letter are stipulated for the term of the contract. The PHA must review and establish utility allowances for units with new equipment the year after the EPC reaches substantial completion to establish new utility allowances consistent with 24 CFR § 965.507(a).

PHAs use of the RPU incentive proceeds are subject to the 75% Rule, as explained in the next section. The PHA may use Excess Savings generated by this benefit to pay for eligible Operating Fund expenses, subject to the 75% Rule as explained below.

HUD's EPC approval does not change regulatory requirements related to Utility Allowances, which PHAs must implement in accordance with 24 CFR 965 Subpart E, Resident Allowances for Utilities.

7.5. Lesser of Costs or Savings

The "Lesser of Costs or Savings Rule" determines the amount of funding a PHA with an AOS incentive may receive in a Funding Year when the incentive is active.

Typically, costs are lower than projected savings. Therefore, in completing the Operating Subsidy forms on an annual basis, PHAs enter projected costs into the Operating Subsidy form. However, because the term of the AOS is coincidental with the Operating Subsidy funding year, the actual costs and savings are not known when the PHA submits the Operating Subsidy forms. Therefore, as part of the EPC Incentive Savings Verification process, PHAs validate the actual costs and savings. If savings are less than costs, an adjustment is made to the following year's Operating Subsidy to offset the difference. This rule ensures that PHAs maximize the ECMs with the debt leveraged by the savings.

7.6. Seventy Five Percent Rule

A PHA must use at least 75% of its annual EPC Savings from FRB or RPU incentives to pay for approved, eligible EPC Project Costs. Any remaining surplus funds from the incentives are Operating Funds. Thus, they may be used for eligible Operating Fund expenses and are subject to Operating Fund rules. EPC Savings, including Excess Savings, cannot be used to purchase capital measures (i.e., other energy improvements) outside of approved replacement costs. Additionally, Excess Savings cannot be placed in a reserve account for application to future EPC Project Costs.

If the PHA uses less than 75% of the FRB/RPU EPC Savings to cover EPC Project Costs, then the difference between the actual EPC Project Costs and 75% of EPC Savings must be offset against the PHA's Operating Subsidy eligibility. This rule ensures that PHAs maximize the ECMs with the debt leveraged by the savings.

The 75% Rule is calculated annually as part of the EPC Incentive Savings Verification process. It is calculated for the entire EPC prior to Operating Fund Formula proration. If both the FRB and RPU incentives are included in the EPC, the annual EPC Project Costs and the EPC Savings are aggregated prior to applying the 75% Rule.

Please note that the 75% Rule does not apply to AOS incentives, which is subject to the Lesser of Costs or Savings Rule.

7.7. Cross Subsidization

On an aggregate basis, the totality of EPC Savings must cover the totality of EPC Project Costs. If during the performance period, EPC Savings fall short covering EPC Project Costs from individual ECMs, Cross Subsidization allows Excess Savings from one or more ECMs to pay for shortfalls in savings at other ECM(s).

Cross Subsidization can occur between incentive types, and between projects. By utilizing Cross Subsidization, more productive ECMs at one project can subsidize less productive ones at another project.

For EPCs or additional phases of an EPC approved in 2012 or before, the EPC approval letter must explicitly identify Cross Subsidization for a PHA to be eligible to utilize it. For EPCs or additional phases of EPCs approved beginning in 2013, PHAs can utilize Cross Subsidization whether or not it is identified in the approval letter.

PHAs should be aware that if they engage in Cross Subsidization using AOS savings to pay for FRB/RPU project costs, any shortfalls in AOS savings in any given year may trigger the Lesser of Costs or Savings Rule.

7.8. Operating Fund Benefit

When a PHA installs ECMs, whether through an EPC involving an AOS incentive or as part of Capital Fund expenditures, and this installation decreases the consumption of a utility, the Operating Fund Formula generates an incentive called the Operating Fund Benefit (OFB), per 24 CFR § 990.170(c). The OFB equals 75% of the difference between the utility's current consumption level and the RBCL. The OFB decreases over a four-year period as the utility consumption decrease increasingly gets factored into the RBCL.

While an EPC will generate an OFB because it reduces consumption, the OFB is not an EPC Incentive. Although it is not an EPC Incentive, the OFB can be considered in the EPC Cash Flow. In this way, PHAs may invest more into energy conservation measures.

7.9. Utility Surcharges

Some PHAs install check- or sub-meters on PHA-furnished utilities under an EPC or by other means to monitor unit, resident, or household utility consumption usage. Check- or sub-meters allow PHAs to determine if a resident's consumption has exceeded the utility allowance (UA). In those cases, the PHA may charge the resident a surcharge for consumption exceeding the UA in accordance with 24 CFR § 965.506 and as acceptable under State and local law. PHAs must

also establish schedules of surcharges for excess consumption attributable to resident-owned major appliances or to optional functions of PHA-furnished equipment (e.g., A/C). PHAs that realize additional savings from resident surcharges (whether in an EPC or not) must report those surcharges to HUD on Form HUD-52722. Income from these surcharges cannot be included in the EPC Cash Flow or captured by EPC Incentives.

7.10. Rate Reduction Incentive

The Rate Reduction Incentive (RRI), although not part of an EPC, is an Operating Fund Formula incentive for PHAs. Per 24 CFR § 990.185(b), if a PHA initiates a special and significant effort beyond what statutes and/or regulations require to reduce its utility rate, such as well-head purchase of natural gas, administrative appeals, or legal action to reduce the rate it pays for utilities, the PHA may receive an RRI.

PHAs pursuing rate reductions should be aware that the rate reductions decrease the EPC Cash Flow. The RRI is not included in the EPC Cash Flow. Although RRIs are not part of the EPC Cash Flow, they may offset reductions in the EPC Cash Flow caused by rate reductions. When an RRI is requested alone, it provides PHAs with 50 percent of the savings from reduced utility rates. By implementing an RRI with an EPC, PHAs can reap 100 percent of the savings from reduced utility rates. To include 100 percent of the savings from reduced utility rates in the RRI portion of the Operating Fund Formula, the EPC and RRI must be executed at the same time, and the PHA must be eligible for both EPC incentives and RRI incentives (1) at the same project, (2) for the same utility, and (3) in the same funding period. Initial approval of an RRI in conjunction with an EPC does not constitute approval of the RRI for the life of an EPC. RRI approvals and time limits are subject to the terms of the most recent RRI Notice at the time that HUD approves the RRI.

To apply for an RRI with an EPC, PHAs should consult with PIH Notice 2023-17 or most current notice for application and program requirements. Both the RRI and EPC approval letters from HUD must indicate that the PHA is pursuing both approvals in conjunction with each other. ***It is critical for PHAs to understand how the timelines and deadlines of the EPC and RRI programs relate to each other given that missing deadlines may have significant financial impacts.***

8. EPC FUNDING SOURCES

To receive any of the EPC Incentives, 24 CFR § 990.185(a) requires that PHAs use third party funds to finance the ECMs in an EPC. PHAs have several options to finance their EPC, including:

- A loan from a bank, utility, or governmental entity; or
- Management of costs under a performance contract; or
- A shared savings agreement with a private energy service company.

A PHA may combine third party financing with funds that are not repaid such as grants or Public Housing funds, as specified below.

8.1. Shared Savings Agreement

PHAs may enter into an EPC that contains a shared savings agreement with an ESCO per 24 CFR § 990.185(a). The PHA and the ESCO enter into an agreement to share the savings realized for all or some of the ECMs. Any shared savings ratio agreed upon by the PHA and ESCO and/or consultant must be specified in the EPC Approval letter. EPC incentives, rules, and regulations remain the same for Shared Savings Agreements (i.e. 75% Rule). EPC savings must be sufficient to pay EPC debt and specified in the EPC Cash Flow in the EPC Approval Letter.

8.2. Third Party Financing

PHAs must use third party financing to receive an EPC Incentive. Third party financing must come from sources other than the PHA or HUD and must not include HUD funds. "Financing" for an EPC must include ongoing debt service. Third-party financing sources can include, but are not limited to, banks, utility companies, governmental entities other than HUD, non-governmental entities, quasi-governmental entities, green banks, and non-profits. Examples of financing may include:

- Bank loans from private lenders;
- Issuance of public bonds;
- Equipment lease purchases;
- Loans from a public entity or quasi-public entity such as a green bank; or
- Utility on-bill financing.

PHAs or PHA affiliates may ***not*** serve as third party financiers. Third party financing that requires a security interest on public housing property must obtain HUD Section 30 approval, described in *Section 14* in this Notice. PHAs should research financial terms (e.g., interest rates and other transaction costs) ahead of EPC approval to ensure that the EPC Cash Flow accurately estimates financing costs. PHAs that obtain rate locks or tentative commitments from lenders bear the risk of these commitments expiring before HUD approval. PHAs must ensure that the financing they obtain may be prepaid and does not prohibit early payment with a lockout period or similar structure in case the PHA wishes to end the EPC debt early for repositioning or other reasons (see Section 12, *Public Housing Repositioning and Other Events Requiring EPC Revision*). While PHAs may pay fees or yield maintenance provisions associated with prepayment with eligible HUD funds, the PHA may not use federally restricted funds to pay prepayment penalties without HUD approval. Therefore, financing agreements shall not include provisions for prepayment penalties that involve HUD funding.

8.3. Grants or Utility Rebates

Grants are money given to a PHA that it does not need to repay. This definition encompasses utility rebates. For this money to be an eligible EPC funding source, it must be combined with third party financing. Savings associated with this funding source may be included in the EPC Cash Flow. Examples include:

- Utility rebates (e.g., grants from utilities for installation of energy or water efficient technologies). For example, a utility rebate may subsidize the cost of a new boiler.
- Government grants where the money originates from a source other than the Public Housing program (e.g., U.S. Department of Energy weatherization grants and FEMA disaster relief funds, HUD funds from non-Public Housing programs or grants such as Community Development Block Grants (CDBG)).

8.4. Public Housing Funds

Public Housing funds include PHA funds that originate from the Public Housing Program, Public Housing funded assets, or PHA program income. These funds are only eligible to be used to pay for the development costs of an EPC when they are combined with third party financing without any adjustment to savings. Any ECMs funded in this manner are called HUD-funded ECMs. Some examples include:

- Operating Fund and/or Capital Fund grants. This also includes Capital Fund Financing Program (CFFP) and Operating Fund Financing Program (OFFP) funds.
- Program income (rental or non-rental income), disposition proceeds, and insurance proceeds.

Operating Funds and associated Program Income may be used to pay for the development costs of an EPC only when the PHA may otherwise use Operating Funds for Capital Fund Purposes (e.g. Pursuant to section 9(g)(1)(B) of the 1937 Act, PHAs may use not more than 20% of its Operating Fund for Capital Fund eligible activities if the PHA provides for such use in its PHA Plan under section 5A of the 1937 Act and in accordance with regulations at 24 CFR part 903. Pursuant to section 9(g)(1)(B)(2) of the 1937 Act, PHAs with fewer than 250 units may qualify for full flexibility in the use of their Operating Funds and Capital Funds and may use all its Operating Funds for Capital Fund eligible activities provided the PHA is not troubled and is operating its public housing in a safe, clean, and healthy condition).

The PHA lending itself money, such as through an instrumentality of a PHA, —or a PHA affiliated entity that would loan the PHA money—would not meet the definition of third-party financing. Anything that is not covered above as an eligible financing source should be discussed with HUD to ensure it is appropriate.

PHAs are not able to loan money from HUD funding sources to pay for an ECM and then replenish the PHA funds with third party financing, as the ECM would count as paid for by HUD sources. Additionally, to be eligible for HUD's EPC incentives, the ECMs cannot be installed

prior to HUD's approval. ECMs installed prior to HUD's approval are not eligible for HUD's EPC incentives.

PHAs should maximize the amount of permissible third-party funding in an EPC to allow for the greatest possible benefit to the PHA. As noted above, the 75% rule and Lesser of Costs or Savings rule incentivize PHAs to maximize third-party funding by recapturing savings if debt service costs are too low as compared to savings. Maximizing third-party financing enables PHAs to undertake EPCs that are deeper green by investing in ECMs that have longer pay back periods, enhancing the EPC's impact on the reduction of greenhouse gases.

8.4.1. Capital Funds and EPC Debt Service

Public Housing Capital Funds may be used to pay or prepay EPC debt. Sections 9(d)(1)(A), (C), (K), and (L) of the 1937 Act permit PHAs to use Capital Funds for financing, modernizing, and improving public housing projects' utility systems. Specifically, these sections authorize PHAs to use Capital Fund grant funds for the financing of modernization of public housing, such as upgrading their obsolete utility systems, improving their energy and water use efficiency, and integrating utility management to maximize energy conservation and efficiency (among other uses). Because EPCs fall under this statutory umbrella, the 1937 Act allows PHAs to use Capital Funds in their repayment of EPC debt provided that, if the EPC involves a security interest in public housing property, the EPC is approved under Section 30 of the 1937 Act and in compliance with 24 CFR part 905, Subpart E.

However, a basic tenet of the EPC program is that EPC Savings must be sufficient to pay for EPC Project Costs. Therefore, even though PHAs may use Capital Funds to pay for EPC Debt Service, they may not include these payments in the EPC Cash Flow because these funds are not "EPC Savings." However, Capital Funds may be used to make payments or prepayments of EPC debt.

Using Operating Funds and associated program income (rental and non-rental income) to pay EPC Project Costs, including EPC Debt Service is an eligible use of such funds and can also be part of an Operating Fund Financing Program approved under section 30 of the 1937 Act.

9. EPC STAGES

Development of an EPC has five main stages:

a. Request For Proposal and Department Approval
b. Project Design
c. Departmental Review
d. Financing and Construction
e. Implementation and Repayment

HUD recommends that PHAs should complete a physical needs assessment for their entire portfolio and create an asset management plan before beginning the EPC process. The Investment Grade Energy Audit (IGEA) described in detail below is a good tool to support physical needs assessments. Asset management plans should identify the capital, physical, and financial needs, as well as the market viability, of each property in a PHA's portfolio. If a property is approaching physical, financial, or market obsolescence, PHAs should not enter into EPCs, as they represent long term commitments that could exceed the viability of the property.

9.1. Request For Proposal (RFP) and Department Approval Stage

To begin the EPC process, PHAs must first decide how to design an EPC project. There are two options for PHAs: either they will design the EPC project themselves, or they will hire an ESCO. PHAs interested in implementing an ESCO-developed EPC must first prepare an RFP and submit it to HUD for approval before issuing it. The RFP must clearly identify the technical specifications that offerors must fulfill, the Public Housing sites included in the RFP, and factors for evaluating respondents.[5]

Most PHAs choose to work with ESCOs because of the technical requirements of the work. However, PHAs are not required to use ESCOs for developing and managing EPCs and may choose to do it themselves. PHAs that choose this option can bypass the RFP process mentioned above and complete related procurements (e.g., procurement of consultants and general contractors) in accordance with PHA procurement policies and 2 CFR part 200.

When a PHA does not use an ESCO, either the PHA or a consultant procured by the PHA must prepare the Investment Grade Energy Audit (IGEA). Because of the skill involved in preparing an IGEA, and the fact that the success of an EPC is largely dependent upon the accuracy of an IGEA, HUD recommends that PHAs with self-developed and self-managed EPCs procure a consultant to prepare the IGEA. If a PHA seeks to procure a consultant, the PHA must follow the competitive proposals method in the PIH Procurement Handbook and issue an RFP based on consultant qualifications plus the estimated cost of an IGEA. The reason for using the competitive proposals method is that without it, consultants responding to an RFP could offer different scopes of work or ECMs, making it impractical to compare consultants because their cost proposals could be based on different scopes of work.

Figure 1 below summarizes these alternative paths for PHAs to get ready for the Project Design Stage explained in the next section.

[5] All RFPs are subject to HUD procurement regulations, including 2 CFR part 200 and the PIH Procurement Handbook for Public Housing Agencies (HUD Handbook 7460.8 REV 2, dated 2/2007).

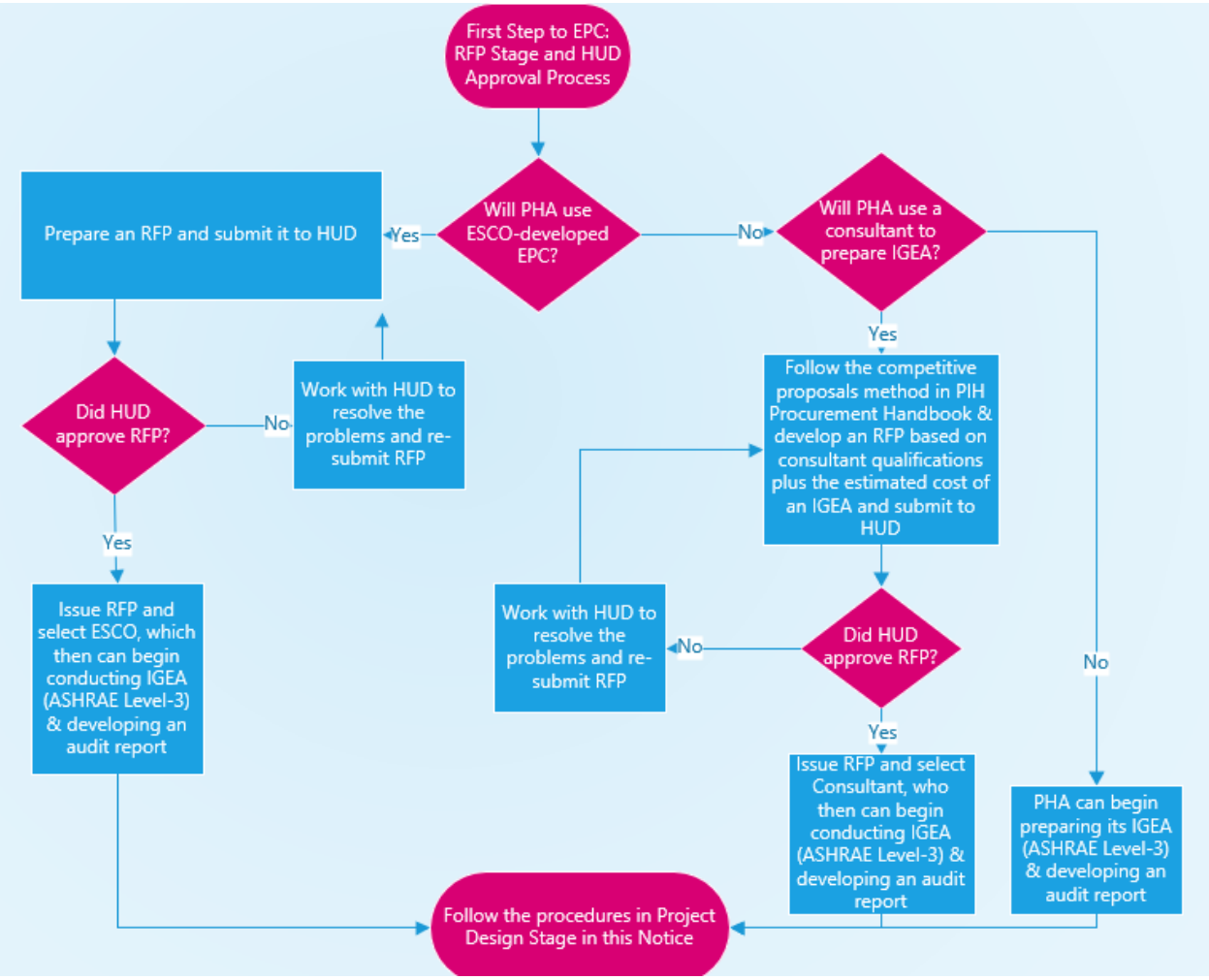

Figure 1. Flowchart summary of the initial steps taken by PHAs to get prepared for the Project Design Stage.

All RFPs for soliciting ESCOs and consultant are subject to HUD's review and approval. In cases where a PHA plans to use expiring funds for an EPC such as utility rebates, the PHA should submit its RFP sufficiently in advance of the funds' expiration to ensure that it clears HUD's review and approval process in time. HUD has prepared an RFP model template and a checklist it will use to review and approve RFPs, available at: https://www.hud.gov/program_offices/public_indian_housing/programs/ph/phecc/eperformance.

9.2. Project Design Stage

In the Project Design stage, a third-party consultant conducts an IGEA. The PHA works with the third-party consultant to make determinations on an EPC structure (i.e. identify the ECMs to include in the EPC). The PHA and its consultant then prepare a detailed submission for HUD's review.

9.2.1. Investment Grade Energy Audit (IGEA)

The purposes of an IGEA and the IGEA report are:

- To inform PHAs of the condition of their properties from an energy and water conservation perspective;
- To obtain sufficient information on the proposed ECMs to estimate their simple payback time (i.e., the time, in years, that an ECM's cost savings will equal the total cost of installing the ECM); and
- To develop a list of potential ECMs for inclusion in the EPC.

Given that the EPC is a long-term contract lasting with financing up to 20 years, HUD requires the IGEA to be an ASHRAE (American Society of Heating, Refrigeration, and Air-Conditioning Engineers) Level-3 audit, with the most current published standard.[6] Minimally, this includes a site walkthrough to assess the operation and performance of the following:

- The building envelope, windows, entry doors, and roof;
- The boiler system, which includes pumping, holding tanks, and piping;
- Heating, Ventilation, and Air Conditioning (HVAC), including chillers, controls, and cooling tower;
- Domestic Hot Water (DHW) equipment;
- Water fixtures in residential units (e.g., toilets, showerheads, and aerators);
- Lighting in residential units, common areas, laundry room, elevator cabs, and mechanical rooms; and
- All elevators, including motors, lifts, and controls.

PHAs can specify additional audit requirements in their RFPs.

For the third-party consultant to perform the IGEA evaluation, the PHA should prepare in advance to provide physical access to a site's common area spaces, a representative sample of the site's tenant occupied apartments, copies of the building's architectural blueprints, and utility register and bills including meter and account numbers.

One type of information the IGEA develops is the Public Housing sites' annual energy usage and the associated cost for space heating and domestic hot water. Energy use information is important because it indicates the amount of energy and cost that the PHA could save with ECMs. As such, the IGEA process includes a review of relevant utility bills to ensure there are no errors or inconsistencies in the project's existing utility consumption baseline.

[6] Current standard for ASHRAE Level 3 Energy Audit is Standard 211-2018, *Standard for Commercial Building Energy Audit*.

The final step in the IGEA is to assign an estimated simple payback time to each type of ECM.

9.2.2. Screen ECMs by Payback Time

The IGEA should generate a list of ECMs for the applicable site with an estimated simple payback for each ECM. At this point, there are two criteria by which PHAs should screen suggested ECMs for inclusion in an EPC:

a. *Will the ECM(s) have a simple payback period of less than 20 years?* The maximum period allowed for receiving EPC Incentives is 20 years. An EPC allows PHAs to group EPCs with long- and short-term simple payback periods which result in an EPC term less than 20 years.
b. *Do any of the ECMs have short payback periods (e.g., less than two years)?* PHAs and ESCOs should identify short payback ECMs because they are the most economically attractive and should be implemented as soon as possible to realize reduced utility costs (water conservation measures frequently fall into this category).

As mentioned above, PHAs and ESCOs may combine short payback ECMs with longer payback ECMs to increase the number of ECMs included in an EPC Application. That said, the desirability of installing ECMs with short payback times tends to make these ECMs a higher priority. Sometimes, an ECM's payback time is longer than anticipated because of additional installation costs that do not contribute to energy savings. An example is replacing an older, inefficient central boiler that also involves asbestos removal. It is possible to pay for such non-conservation costs (e.g., removal of asbestos insulation) using other HUD funds (e.g., Capital Funds) and keep the primary ECM's payback low enough to include it in the EPC.

9.2.3. Establishing the Utility Baseline

The next step in the Project Design stage is to determine whether a combination of ECMs is projected to meet the minimum level of self-financing required for HUD approval (i.e., EPC Savings are reasonably anticipated to cover EPC Project Costs). To do this, PHAs must calculate both anticipated EPC Project Costs and anticipated EPC Savings.

This section applies to all PHAs intending to apply for FRB or AOS incentives that plan to use M&V Option C (discussed in Section 9.5, *Implementation and Repayment Stage*, and Section 10, *EPC Performance*) to calculate their EPC Savings. The "utility baseline" is the "frozen rolling base" part of FRB incentives, or the "expected energy cost" for AOS incentives, both of which play important roles in the EPC Savings calculation.[7]

Please note that EPCs typically involve two sets of baselines. One baseline is created and maintained pursuant to the ESA with the ESCO and is not subject to HUD review and

[7] 24 CFR § 990.185(a)(1)(i); § 990.185(a)(3)(ii)

monitoring. The other is created pursuant to HUD requirements for inclusion in the EPC Approval Letter. Any modifications to HUD-approved baselines must receive written approval from HUD. This Notice addresses only HUD-approved EPC baselines.

To construct a utility baseline for the EPC application, PHAs must prepare a list of utility account numbers and meter numbers for each site included in the EPC by project. PHAs and their ESCOs validate RBCL and associated costs to confirm whether they are reasonable and accurate. When they are not reasonable or accurate, they must be adjusted. Rationale for all adjustments must be explained in the EPC application. For more information, see the utility baseline adjustment guidelines below. If, between a PHA's EPC application submission and HUD approval, a new Operating Subsidy cycle begins, and if cost and consumption increase by more than 10 percent, HUD will require the PHA to use the most recent data.

Utility baseline adjustments/changes at the Project Design Stage may be required by HUD or requested by the PHA as noted below:

a. *Heating Degree Day (HDD)* – HDDs measure how cold the temperature was on a given day or during a period of days. Utility baseline adjustments for HDDs normalize the baseline for heating usage to the 30-year HDD norm for the geographical area. This process is complex, time consuming, involves assumptions, and must be applied to all data. To streamline the EPC approval process, HUD will not consider adjustments to the utility baseline for HDDs unless the average HDD values for the rolling baseline years differ from the 30-year norm for the geographical area by more than 10%. Adjustments will then be considered for heating usage only.

b. *Occupancy* **–** Adjustments to baseline consumption reflecting occupancy changes between the average rolling base time period and the current time period, based on the current Form HUD-52723 and the HUD-52723s for the rolling base time period, will be allowed with HUD approval. Baseline adjustments for future forecasted occupancy changes are not permitted in the initial baseline adjustments.

c. *Unit Count* – Adjustments for changes to the number or type of units included in the rolling base consumption years compared to the current year, as listed on PIH Information Center (PIC) datasheets or its successor Housing Information Portal (HIP), will be allowed with HUD approval.

d. *Building Usage* – Adjustments for changes to building count and usage between the rolling base consumption years and the current year, as listed on PIH Information Center (PIC) datasheets or its successor Housing Information Portal (HIP), will be allowed with HUD approval.

e. *Data Correction* – As discussed above, PHAs and their consultants must validate RBCLs and make adjustments where appropriate. To the extent errors identified by the PHA entailed an overpayment, the PHA must submit documentation confirming that they

have notified the Field Office and are working to correct Form HUD-52722 as needed and repay any overpaid amounts. While HUD will review EPC applications to ensure as best as possible that errors are corrected, it is ultimately the responsibility of the PHA to do so, as only the PHA has access to the complete data set. However, to the extent that HUD identifies data errors after it has approved the EPC, HUD reserves the right to unilaterally revise approved baselines to correct the error. Any resulting overpayments of subsidy will be recaptured.

f. *HUD-Funded ECM* – Per 24 CFR 990.185(a)(1)(i), adjustments to RBCL are required for HUD-funded capital improvements that were completed prior to the EPC (e.g., paid for using Capital Funds). For AOS incentives, HUD will require adjustments when the consumption savings from HUD funded capital improvements that were completed prior to the EPC in any of the baseline years are greater than 10%.

g. *System Repair* – For FRB and AOS incentives,[8] HUD may require the utility baseline adjustments to reflect any system repairs required to meet any applicable building and safety codes if savings from the repairs are greater than 10% of baseline and unless the repair is an ECM.

h. *Cost-Free ECM* – Cost-Free ECMs may be funded with rebates, municipal funding, funding from utility companies, or any other source that does not cost the PHA any money. Utility baseline adjustments for Cost-Free ECMs only take place when the Cost-Free ECM was installed during one or more of the rolling base consumption years (i.e., the years used to calculate the EPC baseline). In these instances, each of the three baseline years will be adjusted to appear as if the Cost-Free ECM was in place for every year of the baseline period.

i. *Utility Meter Replacement* – Utility meters normally run slower as they get older. If a utility meter is verified by a third party as running slow, then HUD will consider adjusting the utility baseline.

j. *The COCC* – Baseline adjustments are required to exclude COCC utilities from the reported Form HUD-52722 values.

k. *Other Adjustments/Changes* – Other adjustments/changes may be allowed with HUD approval.

9.2.4. Developing a Project Scope

PHAs can start to develop their project scopes based on the baseline adjustments that should be reflected in the IGEA. The IGEA identifies cost-effective ECMs to include in the EPC

[8] Per 24 CFR 990.185(a)(1)(i) for FRB; per 990.185(a)(3)(ii) for AOS.

Application. Cost effectiveness is determined by estimating utility consumption savings based on current and future consumption amounts, current and projected utility rates (see EPC Savings definition), and project implementation costs (see EPC Project Costs definition). During this process, a PHA may add or remove ECMs from its planned EPC.

In the development of Project Scope, there must be sufficient annual savings to pay annual EPC costs. All eligible EPC costs are considered during the project scope stage. All EPC Development Costs and EPC Project Costs are subject to review and approval by HUD.

The eligible project expenses include, but are not limited to:

- Audit fees for the IGEA;
- Design and development costs;
- Construction costs, including management, materials, and labor;
- Annual payments of principal and interest for the financing used to pay EPC Development Costs;
- Replacement costs as needed to ensure EPC Savings persist through the EPC term;
- M&V costs;
- Training costs directly related to the maintenance and operations of new equipment;
- Resident education on energy conservation and/or operating newly installed equipment;

Non-eligible project expenses include, but are not limited to:

- Costs for ineligible ECMs (see Section 6.5, *Ineligible ECMs*);
- Routine maintenance; and
- PHA employee salaries, even if a PHA self-develops or self-manages a project.

Operations and maintenance (O&M) costs may be included if the PHA can demonstrate the costs are unique to the new equipment and represent an O&M activity over and above a PHA's routine maintenance costs. This is primarily the case for carbon reduction technologies (e.g., cogeneration, solar, and wind technologies). See Section 6.6.5, *Maintenance Cost*, for further information.

PHAs cannot use EPC financing proceeds to reimburse the PHA for any previously expended funds. For example, EPC Project Costs cannot include the costs, and the EPC Cash Flow cannot include savings from any measures, capital improvements, or maintenance programs that occurred before issuance of the EPC Approval Letter.

HUD requires the PHA to provide a Life Cycle Cost (LCC) analysis for all proposed systems and equipment in the EPC. Additionally, equipment replaced under the EPC must meet minimum efficiency standards. Detailed information is provided in Section 6.6.2, *Minimum Efficiency Standards*, and Section 6.6.3, *Life Cycle Cost (LCC) Analysis* of this Notice.

Eligible replacement costs during the contract term must be included in the EPC Cash Flow and may be included in a replacement fund, i.e. an account that is created with financing proceeds and used to pay for replacement costs, subject to HUD approval. Further guidance on replacement costs is provided in Section 6.6.4, *Useful Life*. If the PHA does not contemplate replacing equipment with a useful life less than the contract period, the savings stream from the equipment must stop at the end of its useful life and the PHA will no longer be eligible to receive EPC Incentives associated with that equipment from that point.

Proposed improvements should be reasonably designed, have a reasonable cost, and be appropriate to maintain the safe and sanitary environment of public housing. HUD will reject proposed improvements that are luxury in nature and will question improvements that are out of character for public housing if lower cost alternatives having shorter financial payback periods are available.

Once the PHA determines that ECMs can self-finance (i.e., EPC Savings are reasonably anticipated to cover EPC Project Costs) and the ECMs meet the payback criteria, then the PHA can consider completing the EPC Application for HUD review.

9.2.5. Measurement & Verification (M&V) Plan and Guidelines

In the Project Design Stage, the PHA should consider all actions and costs. Those include costs related to annual Measurement and Verification (M&V) reports. Therefore, during the design phase, an M&V plan must be established. M&V reports are discussed at greater length in Section 10.1, *PHA Measurement & Verification Reporting Requirements*.

9.3. Departmental Review Stage

In the departmental review, HUD plays both roles as a regulator and a grant manager. As a regulator, HUD issues regulations and notices under its statutory authority, establishing requirements to facilitate the program objectives. As a grant manager, HUD ensures that PHAs expend funds appropriately and on eligible expenses and adhere to procurement requirements, and other responsibilities.

HUD's review of EPC applications includes a Completeness Review and a Technical Review. In reviewing EPCs, HUD is specifically interested in verifying that EPC Project Costs can be funded from reasonably anticipated EPC Savings.[9] HUD will use a Completeness Review Checklist and a Technical Review Checklist to review EPC applications. These checklists are available online so PHAs can ensure they submit complete applications that comply with program requirements. To access the checklists, visit the Public Housing Energy Branch's EPC webpage at

[9] 24 CFR § 990.185(a).

https://www.hud.gov/program_offices/public_indian_housing/programs/ph/pheb/eperformance#checklists.

The EPC Application must include complete and final versions of the documents that the PHA is seeking approval of. HUD will review and issue either an approval or return letter within 60 business days after receiving a complete EPC application.

If HUD approves a project, it will issue an EPC Approval Letter. This letter will have, at minimum, a description of the projects and units covered, the ECMs included the basis for all EPC Incentives through the EPC term (including a summary of EPC Project Costs and EPC Savings, with specific information about the utility baseline, consumption savings, and a comparison of debt to savings through the EPC term), any M&V information, and any conditions of EPC approval. The EPC Approval Letter will expire six (6) months after the date of approval if the PHA has not completed its financial closing. In limited circumstances, HUD may extend this deadline. This expiration date is established to ensure that EPC projects are implemented before the information used as a basis for their design and review becomes outdated.

Any change to the terms of an EPC Approval Letter requires written HUD approval. Please also note that any revisions to an EPC Approval Letter will take up to 60 business days to process from the date a PHA submits all documentation needed to complete the revision review.

9.3.1. Energy Services Agreement

After HUD reviews and approves an EPC submission and issues an EPC Approval Letter, a PHA implementing an EPC with an ESCO enters a contract with the ESCO called an Energy Services Agreement (ESA). This document governs the scope of the project, the ESCO and PHA's obligations, and how the ESCO as general contractor will manage the EPC project in compliance with HUD procurement requirements. PHAs must submit a draft of the ESA to HUD along with its EPC Application, per the Completeness Review Checklist.

a. *PHA Counsel*

The PHA's attorney must perform a legal review of the draft ESA and opine that the PHA's interests appear to be fairly represented and that the contract complies with state and local laws. This review is the major HUD-required substantive review. A sample legal review template is located at https://www.hud.gov/sites/documents/sample-legal-review.doc. The ESA must include a letter documenting the legal review as an Exhibit.

b. *General Requirements*

The ESA must meet all of the following requirements:

1) The following completed HUD forms (signed by both PHA and ESCO) are included as part of the contract. If they are attached to the ESA as exhibits, addendums, or other kinds of attachments, the contract language must explicitly incorporate them into the contract. These forms are accessible at https://www.hud.gov/program_offices/administration/hudclips/forms/hud5a:

    a) Form HUD-5370 – General Conditions for Construction Contracts – Public Housing Programs

        i. The ESA must clearly state that in the event of a conflict between these General Conditions (Form HUD-5370) and the Specifications, the General Conditions shall prevail.

        ii. Additionally, the ESA must clearly state that in the event the contract language conflicts with any HUD approval documents or forms, the language in the HUD approval documents or forms controls.

    b) Form HUD-5369-A – Representations, Certifications, and Other Statements of Bidders, Public and Indian Housing Programs

2) The contract includes a schedule or timeline of when the anticipated construction work will occur.
3) The approved HUD Cost Summary, EPC Cash Flow, frozen and/or reference baselines, and pre- and post-RPU consumption values (if applicable) are included.
4) RFP Review – The contract complies with the terms of the RFP, including guarantee type and M&V methodology.

9.4. Financing and Construction Stage

Upon receipt of the EPC Approval Letter, and a Section 30 Approval Letter if required (see Section 14, *Section 30*), the PHA may secure third-party financing and begin construction. As mentioned above, HUD EPC Approval Letters expire within six months of approval if the PHA has not completed its financial closing.

A PHA may solicit third party financing through an RFP. A financial transaction is a process to qualify the PHA as a borrower and is thus not subject to the requirements of 2 CFR part 200. Third party financing that requires a security interest on public housing property must obtain Section 30 approval, as described in Section 14, *Section 30*, of this Notice.

9.4.1. EPC Modification During Construction Stage

During the construction stage, existing EPCs may be modified (without an extension to the term) by adding additional ECMs up to 10% of the original EPC Development Costs, EPC Project

Costs, or EPC Savings without re-procurement. These ECMs do not require further HUD review and approval. However, ECMs must be for projects/sites that are included in the scope of the existing EPC and copies of the revised EPC documents pertinent to the provision of EPC Incentives (e.g., HUD Cost Summary, EPC Cash Flow, revised amortization schedule, contract amendment and change orders) must be submitted to HUD immediately upon the installations of ECMs. Upon receipt, HUD will amend the EPC Approval Letter as appropriate. Although HUD approval is not required for changes identified in this section, PHAs should be aware that all ECM, Incentive, and EPC requirements apply to the entire EPC.

9.5. Implementation and Repayment Stage

The term of the EPC, up to 20 years, begins when the PHA claims its first EPC Incentive(s) in its Operating Subsidy submission. Once the term of the EPC begins, it applies to all EPC Incentives, regardless of whether all EPC Incentives were claimed in the first year. PHAs may not request partial years of EPC Incentives except where the PHA prepays the EPC debt in its entirety sooner than scheduled. The EPC ends when the EPC debt is paid in full. During the Implementation and Repayment Stage, the PHA must conduct annual M&V reviews in accordance with HUD requirements. The PHA is also responsible for including accurate EPC Incentives in its Form HUD-52722 and Form HUD-52723 submissions and submitting EPC Incentive Savings Verifications to HUD.

9.5.1. Changes In EPC Project Costs and Savings

During the repayment stage, PHAs may find opportunities to refinance their EPC financing and obtain lower borrowing costs. PHAs that do refinancing must provide HUD the new EPC amortization schedule and revised financing terms. HUD will then amend the EPC Approval Letter as appropriate. PHAs can only leverage Excess Savings towards additional ECMs if they seek an additional EPC Phase as described in Section 6.6.7, *Additional Phases of an EPC*. PHAs with 250 or more units cannot use the accumulated excess savings to cover Project Costs for an additional phase. A refinance also requires a new Section 30 approval if the new financing involves a security interest in Public Housing property. For more information on Section 30 approvals, please see Section 14 of this Notice.

9.5.2. PHAS Scoring during EPC Repayment

Since EPCs involve debt service, they may impact a PHA's Financial Assessment Subsystem (FASS) score during the repayment stage, which in turn could impact a PHA's overall PHAS score. PHAs can appeal their overall PHAS score if the EPC debt negatively affects their FASS score. PHAs must submit an EPC amortization schedule along with their appeal request. PHAs must be able to demonstrate that a low score is the result of an EPC expense (e.g., interest expenses or annual required payment) and that their EPC debt negatively affected the Debt Service Coverage Ratio. For details on appeals, please see: https://www.hud.gov/sites/dfiles/PIH/documents/AppealProcess.pdf.

9.5.3. Reporting during Implementation and Repayment Stage

On top of the standard Operating Subsidy reporting requirements applicable to all PHAs, PHAs receiving EPC Incentives must report additional information, with appropriate supporting documentation, on their HUD-52722 and HUD-52723 forms, as applicable, to receive the full value of their EPC Incentives. The following subsections outline PHAs' reporting responsibilities as to these two forms during repayment. M&V is discussed separately in Section 10, *EPC Performance*, below.

a. Utility Rates Reporting

When calculating EPC Savings for Operating Subsidy eligibility, PHAs may not use contractual rates from their agreements with ESCOs (e.g., floor rates). These negotiated rates do not represent the actual amount the PHAs paid for utilities and will result in an inaccurate calculation of savings. Instead, the rates to be used for the calculations are as follows:

Frozen Rolling Base (FRB) Utility Rates: For the FRB incentive, the rate used to calculate savings is the actual average utility rate found in Form HUD-52722, Section 7, line 17.

Add-On Subsidy (AOS) Utility Rates: For an EPC with an AOS incentive reporting on a calendar year period, PHAs may use either (1) the average rate from the utility bill ledger for the calendar year or (2) the actual average utility rate found in Form HUD-52722, Section 7, line 17, for which the reporting period is the twelve-month period ending June 30th. The PHA must choose one option and use that option for each year of the EPC.

Resident Paid Utility (RPU) Utility Rates: The utility rate used in the Utility Allowance form. The PHA may also use the actual average utility rate on line 17 of the Form HUD-52722 for the respective utility if supported by adequate documentation if a resident paid utility rate is not available. The PHA must maintain documentation supporting the rate used.

b. Frozen Rolling Base (FRB) Incentive Reporting

The FRB values for PHAs receiving an FRB incentive are prepopulated in Form HUD-52722, Section 3, Lines 02-04 at the baseline levels calculated in the year the conservation measure was implemented. This allows the PHA to receive the value of the incentive. Even though the RBCL is frozen for purposes of the FRB incentive, PHAs must continue reporting current PHA-paid utility costs and consumption on Form HUD-52722 as part of the Operating Subsidy process.

FRB Savings: As discussed above, the dollar value of the FRB incentive is calculated by taking the difference between the frozen baseline and current utility consumption and multiplying this number by the applicable PHA-paid Form HUD-52722 utility rate.

FRB Savings = (Frozen Baseline – Current Consumption) x (Form HUD-52722 Utility Rate)

c. RPU Incentive Reporting

The RPU incentive is captured on Form HUD-52723. PUM formula income on HUD-52723 is reduced by the PUM RPU cost savings, which is recorded as a negative value on Form HUD-52723, Section 3, Part B, Line 02. This cost savings is calculated as part of the EPC Incentive Savings Verification. In EPCs where the entire project is not subject to the RPU incentive, all units in the project are still included in the calculation.

If using the RPU incentive, PHAs are required to submit pre- and post-RPU data (consumption values, current utility rates, and occupancy data) as supporting documentation for Form HUD-52723. Additionally, the PHA must provide documentation that it has reviewed tenant allowances per 24 CFR § 965.507.

d. AOS Incentive Reporting

For the PHAs to claim the AOS incentive, it is reported as "Add-on-subsidy (AOS) incentive energy performance contract (EPC)" in Section 3, Part A, Line 08 of Form HUD-52723. The actual utility consumption is reported annually on Form HUD-52722, and the rolling base years on Lines 02 through 04 are not frozen. Reporting requirements differ for the two M&V methods associated with the AOS incentive, Option A and Option C. Under either of the two methods, the AOS incentive is limited to the lower of EPC Project Cost or EPC Savings:

Calculating Savings with Stipulated Consumption Savings (Option A): The dollar amount of the cost savings for AOS Option A incentives are calculated by multiplying the stipulated consumption savings by the applicable PHA-paid utility rate for the reporting period:

AOS Option A Savings = (Stipulated Consumption Savings) x (Form HUD-52722 Utility Rate)

Calculating Savings with Reference Baselines (Option C): For EPCs with AOS Option C, the EPC Approval Letter will identify reference baselines for each utility. The dollar amount of the cost savings is determined by multiplying the consumption savings (i.e., the reference baseline minus current consumption) by the applicable PHA-paid utility rate.

AOS Option C Savings =
(Reference Baseline – Current Consumption) x (Form HUD-52722 Utility Rate)

If using Option C, the PHA must provide documentation to support the current utility consumption value. This documentation must include annual utility bill ledgers.

10.5.4. Adjustments During Implementation and Repayment Stage

Baseline adjustments made during the Project Design Stage were discussed earlier in this Notice. During the Implementation and Repayment Stage, adjustments to approved baselines may be optional or required. Generally, stipulated savings are not adjusted upward.

Below is a list of mandatory and optional implementation and repayment stage baseline adjustments:

Mandatory:

- *Removing units from inventory* – In the case of removal of units from inventory, baseline adjustments may be required pursuant to Section 13 of this Notice.
- *Building usage* **–** Adjustments for building usage changes between the usage at HUD approval and usage in the current utility reporting year.
- *Meter adjustments* **–** When any utility meter is replaced, the PHA must identify utility consumption before and after replacement. If there is a 10% or greater change in consumption after substantial completion, the PHA must submit a baseline adjustment request to HUD. HUD requires at least 12 months of consumption data logged from before the meter is replaced and then another 12 months from after it is replaced to prove that the meter is not functioning or performing properly. Third-party verification of the meter calibration error (e.g., through testing or utility verification of the meter defect) is required when the PHA is requesting upward baseline adjustments. HUD will not approve upward baseline adjustments that could have been identified during the initial EPC approval and are not submitted promptly after the problem occurred.
- *PHA-paid utilities to resident paid utilities (or vice versa)* **–** Baseline adjustments are required for any change in utility payee. The process for switching the utility payee is described in the Form HUD-52722 instructions.
- *Unit count adjustments* – Baseline adjustments are required for changes of 10 % or more in the number or type of units in the current utility reporting year, as listed on IMS-PIC or its successor Housing Information Portal (HIP).

Optional:

- *Occupancy adjustments* – Adjustments for occupancy differences between the current utility reporting year occupancy, as listed on Form HUD-52723, and the occupancy used to calculate the HUD-approved baseline are allowable subject to HUD's written approval. Adjustments should reference 12 months of data from the period on Form HUD-52723.

10. EPC PERFORMANCE

An EPC is a long-term contract lasting up to 20 years and requires consistent monitoring and management to ensure that the ECMs installed produce sufficient savings to service the annual

EPC debt. The PHA should ensure that it maintains and operates the equipment installed with the EPC to agreed levels. Measurement and Verification (M&V) reports, completed annually, are a tool which enables PHAs to effectively monitor and manage EPCs throughout their term. M&V refers to the assessment of an EPC's performance. Specifically, M&V is used to calculate and document EPC Savings.

M&Vs are not required to be submitted to HUD annually. HUD may require a PHA submit M&Vs in certain circumstances including when the EPC is not performing, when the PHA requests a baseline adjustment, or when a PHA requests HUD's approval to be amended.

10.1. PHA Measurement & Verification (M&V) Reporting Requirements

M&V refers to the assessment of an EPC's performance. Specifically, M&V is used to calculate and document EPC Savings. HUD requires PHAs and their ESCOs/consultants to set M&V requirements (M&V Plan) based on International Performance Measurement and Verification Protocol (IPMVP) at the Project Design Stage and the ESCO or consultant to complete an M&V report annually to ensure that the ECMs in the EPC meet or exceed their planned savings as identified in the EPC Cash Flow. M&Vs based on the IPMVP may include activities such as site surveys, metering of energy, engineering calculations, and reporting. IPMVP requires inspections during the post-retrofit period for gathering data and functions to ensure that installed equipment is functioning as planned.

10.1.1. Change in M&V Provider

ESCOs typically perform M&V. Depending on the terms of the ESA, a PHA may choose to terminate the contract, including the M&V portion of the EPC. If it does so, a PHA needs to procure a third party to deliver at minimum the elements of the HUD-required M&V protocol through the end of the Implementation and Repayment Stage.

10.2. EPC Incentive Savings Verification

PHAs must perform EPC Incentive Savings Verifications on an annual basis to ensure that the EPC Incentives they have claimed on their Form HUD-52722 and Form HUD-52723 are accurate. The annual EPC Incentive Savings Verifications must be submitted to HUD by the deadlines provided each year in HUD's annual Operating Subsidy Processing Notice. This process uses values from the EPC Approval Letter, actual energy and/or water consumption and costs. The benefits of EPC Incentive Savings Verification are the following:

a. PHAs can confirm that they are receiving the full eligible amount of their EPC Incentives.
b. PHAs can confirm that they are not violating HUD's approval by claiming more than the approved amount of their EPC Incentives.
c. PHAs can compare the value of their EPC Incentives to the values in their annual M&V Reports.

d. PHAs can determine whether to ameliorate the effects of an underperforming EPC or reap the benefits of an overperforming EPC by adding phases or ECMs to the EPC.

If HUD discovers that a PHA is overfunded due to a miscalculation of EPC Incentives, HUD will recapture all overfunded amounts. Correction of funding errors can significantly impact PHAs' financial circumstances. As such, it is critical for PHAs and FOs to communicate clearly during this process and work together to ensure that the incentives included on a PHA's HUD-52722 and/or HUD-52723 are accurate.

11. EPC CLOSE OUT

EPC Incentives end when the EPC loan is fully paid off (even if this occurs earlier than the EPC Approval Letter anticipated), or when all public housing units associated with the EPC are completely removed from the PHA's inventory. The PHA will not be eligible for EPC Incentives and cannot include any EPC Incentives in its Operating Subsidy forms in the funding year after the EPC ends.

11.1. Changes to Operating Subsidy Forms

To unfreeze the rolling base on Form HUD-52722, PHAs must use the three (3) previous years of actual consumption. PHAs must report zero (0) on Form HUD-52723 Section 3, Part A, Line 8 and Part B, Line 2. PHAs are still subject to recapture or offset from the last funding year due to the 75% Rule or the Lesser of Costs or Savings Rule, as applicable.

11.2. Final EPC Debt Payoff

When a PHA pays off the entirety of its EPC debt, it must notify HUD by sending an email to the below email address, including the PHA code, PHA name, EPC approval date, the debtor, payoff date, and project numbers of the project affected:

- Notify the Energy Branch at PIHEnergyBranch@hud.gov; and
- If a security interest is involved, OPHISecurity30submissions@hud.gov.

Additionally, please note that PHAs "closing out" their public housing programs should maintain sufficient funds until the FO determines whether any funds must be recaptured.

12. PUBLIC HOUSING REPOSITIONING AND OTHER EVENTS REQUIRING EPC REVISION

12.1. Project Reconfiguration

If at any time the PHA seeks to reorganize, combine, or separate project sites covered by an EPC, outside of repositioning, the PHA must alert the Field Office. If there is a reconfiguration to a project, a revision to the EPC Approval Letter will be required. See *Appendix III* for required documentation for EPC Applications for Revisions.

12.2. Project Repositioning

PHAs can use the Rental Assistance Demonstration (RAD), Demolition/Disposition (Section 18 of the 1937 Act, 42 U.S.C. § 1437p), Streamlined Voluntary Conversion (Section 22 of the 1937 Act, 42 U.S.C. § 1437t), or other means to remove units from their public housing inventories. PHAs should fully understand the benefits and the risks of doing so while implementing and repaying an EPC.[10]

12.3. Prepayment of EPC Debt

When a PHA is repositioning units, and those units are covered by an EPC, the PHA must prepay the EPC debt in an amount to ensure that the EPC associated with any remaining Public Housing units will have a positive EPC Cash Flow. Generally, HUD uses a proportionality method to determine how much EPC debt must be repaid. Under that method, prepayments must be proportionate to the amount of savings the repositioning units are achieving based on the EPC Approval Letter and recent savings performance. However, if the proportionality method does not ensure the EPC's continuing positive EPC Cash Flow on its own, the PHA must repay additional debt up to the amount required for the EPC associated with the remaining Public Housing to have a positive EPC Cash Flow.

Please note that the EPC lender is likely to perform its own evaluation of whether any repayment is required as part of the conversion. If the lender arrives at a different amount of repayment than what HUD calculates, the PHA must repay the higher of the amount identified by HUD or the EPC lender.

As mentioned in Section 8.2, *Third Party Financing*, because PHAs may be required to prepay EPC debt if they reposition units, EPC debt financing documents must permit prepayment. While yield maintenance clauses are allowable, prepayment penalties are not permissible without HUD approval. See Section 8.2 for details.

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[10] For more information on public housing repositioning programs, please see the following:

- Rental Assistance Demonstration (RAD): Notice H-2019-09/ PIH 2019-23 (HA) as amended by H-2023-08/ PIH 2023-19 (HA) or successor Notice; www.hud.gov/rad/.
- Demolition/Disposition (Section 18): 42 U.S.C. § 1437p; 24 CFR part 970; PIH Notice 2021-07 or successor Notice; https://www.hud.gov/sac.
- Streamlined Voluntary Conversion (Section 22): PIH Notice 2019-05 or successor Notices.

12.4. Process for Obtaining HUD Approvals Prior to Repositioning

The processes for obtaining HUD approvals prior to repositioning depend on the repositioning's specific circumstances. These circumstances and their accompanying processes are described below. Please note that, for all repositioning involving units covered by EPCs, if the EPC includes a Section 30 security interest, the PHA should notify the Office of Urban Revitalization at OPHISection30submissions@hud.gov for assistance in extinguishing the security interest.

12.4.1. If All Units in the EPC are Repositioned

If all the Public Housing units covered by an EPC are being repositioned within one funding year, HUD will normally require the PHA to pay off the remaining EPC debt. PHAs may use proceeds from a RAD conversion (i.e., mortgage proceeds or tax credit equity) to pay off EPC debt. Note that for repositioning under RAD in the year after the year of the Housing Assistance Payment contract effective dates for a RAD conversion, such properties or portions of properties will cease receiving Operating Subsidy Grants.

If a PHA is planning to remove all Public Housing units covered by an EPC and repay all the EPC debt, there is no need to seek a revised EPC Approval Letter because the EPC will be extinguished.

The PHA must submit a letter from the PHA Executive Director to the Energy Branch (PIHEnergyBranch@hud.gov) formally requesting that HUD end the EPC Incentives when the repositioning transaction closes and describing the PHA's plan to repay the EPC debt. The letter should be submitted well in advance of closing to facilitate the timely acquisition of other approvals, depending on the type of repositioning (e.g., for Section 18 demolitions or dispositions, submit this letter at the same as the Demolition and Disposition Application is submitted in IMS-PIC or its successor Housing Information Portal (HIP) for processing by HUD's Special Applications Center (SAC).

12.4.2. If Some Units are Repositioned

If the PHA is repositioning some but not all the units under an EPC, unless the financing documents don't allow prepayment, the PHA will be required to prepay a portion of its debt and, except as noted below, obtain a revised EPC Approval Letter before the units are removed from inventory.

When the EPC debt is not prepaid, the PHA may not use Public Housing funds to pay the portion of the debt service and other costs allocable to the repositioned units. The debt service and other costs allocable to the repositioned units must be included in the cash flow of the new project (which could contain the repositioned units). The new project must positively cash flow after consideration of the EPC debt service and other costs allocable to the repositioned units. Alternatively, the PHA may establish an escrow to pay EPC debt service and other costs

allocable to the repositioned units. Thereafter, the PHA may not include savings or debt service and other costs allocable to the repositioned units in its EPC savings verification calculations.

The PHA is required to obtain a revised EPC Approval Letter if there will be a reduction of more than 10% of the EPC Project Costs or EPC Savings once the proposed units are repositioned. This 10% threshold is calculated based on the information in the most recent EPC Approval Letter (original, Phase 2, etc.) or revision thereto.

If there will be a reduction of less than 5% of the units once the proposed units are repositioned, no EPC Approval Letter revision or submission to HUD is required, as HUD considers this a "de minimis" reduction. The 5% threshold is calculated based on the information in the most recent EPC Approval Letter or revision thereto.

If there will be a reduction of more than 5% of the units, then the PHA must submit calculations to the Energy Branch verifying this at PIHEnergyBranch@hud.gov, demonstrating the resulting change in EPC Project Costs and EPC Savings. If the reduction in EPC Project Costs or EPC Savings is not greater than 10%, then PHA will not be required to obtain a revised EPC Approval Letter.

12.5. Revised EPC Approval Letter Package

Repositioning activities can cover some or all of the units subject to an EPC. PHAs must obtain a revised EPC Approval Letter if a repositioning action will remove some, but not all, units covered by an EPC. When removing units via demolition, the PHA must obtain the revised EPC Approval Letter before HUD will approve the demolition (subject to the 5%/10% exceptions noted above). When removing units via disposition (Section 18) or conversion (RAD or Section 22), subject to the 5%/10% exceptions noted above, HUD will not release the Declaration of Trust (DOT) until the EPC debt is repaid in the amount determined by HUD. If all of the units are being removed, the EPC debt must be repaid in full prior to HUD approving Demolition—or, in the case of disposition or conversion, prior to the release of the DOT.

To obtain a revised EPC Approval Letter, the PHA must submit an EPC Application Package for Revisions, as described in *Appendix III*, to HUD at least 60 calendar days prior to the anticipated closing date (for RAD, Section 18, or Section 22, etc.) or scheduled demolition date (for Section 18). ***Please note that PHAs that do not submit documents in a timely manner risk delaying their closing or holding up their scheduled demolition contract.***

Each repositioning requires its own revised EPC Approval Letter. However, for properties that will reposition together (or at least within a few months of each other), a PHA may request that HUD calculate the amount of debt that must be addressed for the bundle of properties and create a single revised EPC Approval Letter that reflects all bundled units. Further, for PHAs that plan to remove multiple properties from their inventories over time, HUD strongly recommends that these PHAs submit the documents outlined above for all properties at once. HUD will perform a single consolidated approval to the extent possible based on the PHA submission, reflecting

conversions in the same calendar year. However, deviations from the conversion plan of more than 10% of EPC Project Costs or EPC Savings (see above) require additional amended approvals from HUD. The PHA should remain in communication with HUD about any changes to planned closings. The PHA must be able to demonstrate the remaining public housing EPC continues to pay for itself. In all cases, the PHA should provide updated information on the EPC to HUD.

12.6. Impact of Repositioning on Measurement and Verification

When a housing authority undertakes repositioning of public housing units in its portfolio, it can affect the associated EPC in several ways:

a. The EPC Approval Letter will need to be revised to reflect new conditions for the EPC that meet required rules as noted above.
b. The annual EPC Incentive Savings Verification, including the 75% rule and the Lesser of Cost and Savings Rule, will reflect EPC Savings and EPC Project Costs pursuant to the revised EPC Approval Letter.
c. The Energy Savings Agreement (ESA) may be modified if the units removed from public housing inventory are no longer subject to the agreement.
d. The M&V report would need to reflect any changes to the ESA for the housing authority to manage the EPC through the remainder of the term of the contract. If PHAs receive one combined M&V Report for repositioned and public housing properties, the PHA should identify in their annual M&V Report submission which units are still operated as public housing and the costs and savings attributed to those units. Only costs to complete the M&V associated with remaining public housing projects may be allocated to the EPC and paid with Public Housing funds.

12.7. Benefits of Using RAD to Reposition Units with an EPC

By undertaking EPCs, PHAs reduce their utility consumption and costs. Additionally, when a property implements an EPC, the amount of Operating Subsidy eligibility is increased by the value of the EPC Incentives. When PHAs decide to reposition their properties through RAD, completing an EPC prior to the RAD conversion can have significant financial benefits. Unlike in public housing, where EPC Incentives are temporary, RAD conversions of properties covered by EPCs in essence grant PHAs those EPC incentives permanently. This is because the RAD rent determination is based in part on the amount of Operating Subsidy the PHA receives, and the Operating Subsidy increase from the EPC Incentive gets factored into this calculation. The higher rents, combined with the greater savings on utility costs, enable PHAs to maximize their post-repositioning revenue streams and the amount they can borrow as part of the repositioning transaction.

12.8. How EPC Incentive Types Affect RAD Rents

Some specific interactions between the EPC incentives and the structure of RAD are described below.

12.8.1. FRB and AOS Incentives in Place before RAD Conversion

The RAD rents for each public housing property incorporate any existing FRB or AOS incentives associated with an existing EPC that were in place ***during*** each property's "RAD rent base year" – e.g. CY 2012 for properties awarded under the original 60,000-unit cap, or CY 2014 for properties awarded because of the cap increase to 185,000 units. The methodology for calculating RAD rents includes the Operating Fund Formula Utility Expense Level (UEL) and Energy Add-on components, which results in the properties' retention of the value of existing EPC Incentives when they reposition through RAD. When repositioning through RAD, PHAs with AOS incentives effectively switch to FRB, given the AOS becomes part of the basis for the RAD rent as described below. PHAs should consider the impact of this transition.

12.8.2. RPU Incentives and RAD Rent

Due to incomplete administrative data, HUD did not incorporate the RPU incentive into the rent levels posted in the RAD Application and Tool. As a result, for properties proposed for RAD conversion with an ***existing*** EPC using the RPU incentive, HUD will allow an amendment to the posted RAD rent to add the PUM EPC RPU. The PHA will use the most current RPU information to modify contract rents. PHAs with RPU incentives should discuss how to incorporate this amendment with HUD.

12.8.3. AOS Incentives in Place After RAD Conversion

EPCs with AOS incentives effective ***after*** the RAD base year do not have the RAD rents amended, but still in effect receive the value of the incentives. For example, properties that were awarded CHAPs based on new RAD authority between January 1, 2023, through December 31, 2024, have RAD rents based on Funding Year 2022 funding levels. These amounts do not incorporate any AOS incentives that began in 2023 or later. However, this structure is similar to an FRB incentive, since the RAD rents are based on the UEL from 2022. In this example, the EPC should have decreased energy consumption and cost after 2022. However, since the RAD rent would be based upon the higher 2022 UEL, the property would benefit from the value of any reduction in consumption.

Under this example, a PHA finishes construction in 2024 with an AOS-only EPC that reduces utility costs by $100,000 from its 2022 level of $500,000, down to $400,000. Since the AOS incentive equals the lesser of EPC Project Costs or EPC Savings, it will always be equal to or lower than realized utility savings. The PHA is set to receive an AOS incentive in 2024 for $80,000 (the value of its EPC Project Costs), but has been awarded a RAD CHAP. The RAD formula will not recognize the $80,000 AOS incentive scheduled to begin in 2024. However, the RAD formula recognizes the 2022 baseline of $500,000, instead of the lower 2024 level of $400,000 for the UEL plus the $80,000 AOS for a total of $480,000. The effect is equivalent to

the PHA freezing its base in 2022 instead of receiving an AOS. For additional information on how the RAD rents are calculated (including how Operating Cost Adjustment Factors or OCAFs are factored into 2022 RAD rents for use in future years) see the latest RAD Notice (currently PIH 2023-19, Rental Assistance Demonstration – Supplemental Notice 4B, and PIH-2019-23 (HA), RAD Notice Rev4 as amended by Supplemental 4B)) and guidance materials at https://www.hud.gov/rad.

13. ADDITIONAL PHASES

PHAs may extend the term of an existing EPC with an initial term of less than 20 years up to a total term of no more than 20 years. They generally accomplish this by adding new ECMs or adding more ECMs of a similar type to existing ECMs. Additional phases of an existing EPC must begin upon the conclusion of the original incentives period. Because the total incentives period must be continuous, the PHA cannot request an extension to start after the original incentives period has already ended. PHAs must submit complete documentation for HUD's review and approval at least 6 months prior to the end of the initial incentive period.

13.1. Scenarios for EPC Term Extensions

The following are the most common scenarios involving additional EPC phase(s):

13.1.1. Remain with the PHA's Existing ESCO

The PHA can add an additional EPC phase using the same ESCO it used for the previous phase, extending the term and either adding new ECMs or adding more of a similar type of ECMs, without a new procurement. The ESCO cannot add any new projects that were not in the original RFP.

13.1.2. Use a Different ESCO

The PHA can use a different ESCO for an additional phase without procurement if the existing ESA is assumable. The PHA is free to negotiate with any ESCO willing to assume the existing ESA. Similar to the above, the additional phase can extend the term and either add new ECMs or more ECMs of the same type without new procurement. Because it is assuming the original ESA, the new ESCO cannot add any new projects that were not in the original RFP.

If the existing ESA is not assumable, and the PHA wishes to use a different ESCO, then the PHA must go through procurement to find another ESCO. This would be considered a separate EPC from the existing EPC, rather than an extension or phase addition. As such, the incentives and savings from the existing EPC cannot be combined with the second EPC, and the PHA must go through the full EPC approval process once again.

13.1.3. Change from ESCO to Self-management

If the PHA currently under contract with an ESCO seeks to self-manage additional phase(s), then the PHA can combine the new phase(s) with the incentives and savings from the original EPC. The PHA must retain a licensed professional architecture/engineering firm to prepare the required IGEA and M&V plan. The PHA can include the estimated cost of an independent third-party consultant for annual M&V service in the EPC Application Project Costs.

13.1.4. Continue Self-managing

If the PHA's existing EPC is self-managed, it can continue adding additional phases and combine the incentives and savings from its existing self-managed EPC(s). The PHA must procure a licensed professional architecture/engineering firm to prepare the required IGEA and M&V Plan. The PHA can include the estimated cost of an independent third-party consultant for annual M&V service in the EPC Application Project Costs.

13.1.5. EPC Extension when Energy Savings Less Than Amortized Payments

Another way that an EPC can be extended (up to the 20-year limit) is if the PHA is receiving an AOS incentive, but the energy cost savings are less than the amount necessary to meet amortization payments.[11] This is only possible when HUD determines that the shortfall is the result of changed circumstances (e.g., the increase in consumption was due to additional modernized units coming online), rather than a miscalculation or misrepresentation of projected energy savings by the contractor or PHA.

13.2. Documentation for HUD Review for Additional Phase of EPC

The submission for additional phase(s) must support the validity of the EPC Project Costs and EPC Savings of the prior phase(s), original scope, baselines, and baseline adjustments. HUD will validate the last two years of EPC Savings to determine the reasonableness of the savings going forward in the additional phases. PHAs must submit packages for HUD approval at least 6 months prior to the end of the initial incentive period. For the documents that are needed for submissions in this regard, see *Appendix III*.

13.3. EPC Savings with Additional Phases

HUD's focus when reviewing requests for additional EPC phase(s) will be on EPC Savings. Additional phase(s) HUD Cost Summary (see definition of the term in *Appendix II*) must be provided showing all previous phase(s) measures and additional phase(s) ECMs by project, the utility's funding type, and the incentive's M&V type. HUD's review process will involve the following, where applicable:

[11] Per 24 CFR § 990.185(a)(3)(iv)

- The savings from existing ECMs reported in the HUD Cost Summary (HCS) must be supported by HUD-validated savings.
- Option C baselines will remain at the existing EPC level unless supported by approvable adjustment requests.
- Cost savings from the existing EPC will be used to support additional phase(s) ECMs.
- New baselines will be established for projects added in additional phase(s).

13.4. New ECMs in Additional EPC Phases

If any sites covered by an EPC did not receive an ECM in prior EPC phase(s), then the new equipment could be considered a new ECM in additional phase requests. However, obtaining more efficient replacement equipment for prior ECMs is not considered a new ECM, but as replacement costs. For example, exterior lighting could be installed at a new site that did not receive it in a Phase I EPC, but if more efficient exterior lighting was proposed for a site that received it in Phase I, it would be treated as a replacement, not a new ECM.

13.5. Cost-Free ECMs in Additional EPC Phases

Cost-Free ECMs, discussed in Section 9.2.4, *Developing a Project Scope*, in certain circumstances can be incorporated into additional EPC phases. For both Option A and Option C M&V approaches to ECMs, Cost-Free ECMs can be proposed for inclusion in an additional EPC phase, and these savings can be leveraged in the additional phase; however, Cost-Free ECMs cannot be installed until the additional phase is approved.

14. SECTION 30

When Section 30 approval is required as discussed below, PHAs must submit Section 30 approval documents to OPHI for review via email at OPHISection30submissions@hud.gov at the time it submits the EPC application to the Energy Branch PIHEnergyBranch@hud.gov. Submissions should copy the local FO Public Housing director so that FO Office of General Counsel can be consulted to review DOT/DORCs and provide legal opinions expediently.

Pursuant to Section 30 of the 1937 Act, 42 U.S.C. § 1437z-2, where any financing transaction involves a security interest in or other encumbrance of public housing property, PHAs are required to obtain HUD's written Section 30 approval before they can enter into an agreement involving the security interest or encumbrance. HUD's approval of EPCs and associated ESAs does not constitute approval of any security interest, so PHAs must obtain a separate approval for the Section 30. Business rule for HUD's Section 30 review and approval is the following:

- **Not Required:** When a third party owns the equipment, Section 30 approval is not required. Under some lease-purchase agreements (otherwise known as municipal leases, the typical financing structure for an EPC), ownership of the equipment may reside with a bank, ESCO, or other third party.

- **Required:** Where ownership of the equipment resides with the PHA and a lien or other encumbrance exists on the equipment, Section 30 approval is required. HUD's Section 30 review focuses narrowly upon the security interest or encumbrance and does not evaluate or approve the financing.

PHAs contemplating EPCs that include Section 30 review should consider contacting the Office of Urban Revitalization in OPHI prior to document submission, and when a PHA is seeking to refinance or modify existing Section 30 EPCs. This will allow for consultation on the proposed project and for OPHI staff to provide technical assistance in advance of document submission.

Note that if there is an existing Section 30 approval and there is refinancing (i.e., a change in loan terms or interest rate) that impacts a security interest, the HUD Section 30 approval will need to be modified. To initiate a Section 30 review limited to the change in financing, contact the Director of the Office of Urban Revitalization in OPHI (Office of Public Housing Investment) at OPHISection30submissions@hud.gov.

For more information on the process and required documents, please reference *Energy Performance Contracting Section 30 Reviews and Approvals Guidebook* at https://www.hud.gov/sites/dfiles/PIH/documents/EPC_Section30_Guidance.pdf.

15. NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) AND ENVIRONMENTAL REVIEWS

All EPCs are subject to and reviewed for compliance with the National Environmental Policy Act (NEPA) of 1969 (42 U.S.C. § 4321 et seq.), and other related environmental laws and authorities. HUD implements NEPA through 24 CFR parts 50 and part 58. EPC financing is contingent upon HUD providing incentives through the Operating Subsidy, which are subject to environmental review requirements under 24 CFR § 990.116. The level of environmental review for an EPC will depend on factors including the type of ECMs, project description, scope, location, and history of the properties.

15.1. HUD Environmental Review

The environmental review of a PHA's activities is prepared by a Responsible Entity (RE) under Part 58 or by a HUD reviewer under Part 50. The RE is a designated unit of general local government within which the project is located that exercises land use responsibility, or if HUD determines this infeasible, the county, or if HUD determines this infeasible, the State. Having a RE prepare an environmental review under Part 58 takes advantage of local knowledge, place-based expertise, local land use information, and local environmental conditions and requirements. Environmental reviews are conducted for specific project activities for each site. During an environmental review, the PHA identifies the project site(s) and description(s), including scope. The PHA gathers the supporting documentation and submits that information to the RE (or HUD reviewer) to determine and conduct the proper level of environmental review in

accordance with Part 58 (by the RE) or Part 50 (by HUD). HUD guidance on environmental review requirements is found in PIH 2016-22 (or successor PIH Notice) addressing Environmental Review requirements for PHAs. Additional environmental review guidance, information, training materials, worksheets and forms can be found on the HUD Exchange at https://www.hudexchange.info/programs/environmental-review/. PHAs are responsible for ensuring they are referencing PIH 2016-22 or the most recent environmental review guidance, as new guidance may have been published since the publication of this document.

15.2. Overview of EPC Environmental Review Process for PHAs

For the purposes of NEPA, HUD's approval of the EPC is considered a choice limiting action. HUD will not issue the EPC Approval Letter until the environmental review is completed and environmental clearance is obtained. The environmental review process is organized in the following order for EPCs:

a. *IGEA:* The IGEA is an example of a specific activity identified in PIH 2016-22 or the successor PIH Notice addressing Environmental Review requirements for PHAs and can be carried out ***without*** a request for environmental review.

b. *EPC Location and Description:* Prior to EPC Application review, the PHA identifies the EPC project location(s) and description(s), including scope, and submits that information to the RE (or HUD reviewer), which will determine the proper level of environmental review.

c. *New Environmental Review:* If the EPC activities are not included in either PIH's programmatic determination in PIH Notice 2016-22 or a prior environmental review, then the RE (or HUD reviewer) conducts a new environmental review of the proposed ECM activities.

d. *Environmental Review Clearance:* The PHA may not commit any funds or take any choice limiting actions prior to securing approval of a Request for Release of Funds from the Department for a Part 58 review or environmental clearance from the Department for a Part 50 review.

e. *Post-EPC Approval Changes:* If after EPC approval there are any changes in the project description or scope, including an additional phase of an EPC, the PHA notifies the RE or HUD as applicable with a request for re-evaluation or a new review.

16. MOVING TO WORK (MTW) AGENCIES AND SELF-APPROVED EPCs

MTW PHAs with MTW Agreements that specify Alternative Operating Subsidy formulas that do not include utility consumption are not eligible for EPCs, as there is no consumption by which a baseline could be created. Also, MTW PHAs with MTW Agreements that specify

Alternative Operating Subsidy formulas that have frozen utility consumption are not eligible for EPCs as baselines are based upon three years of actual consumption, which is not available for such PHAs. It is important to note that MTW PHAs with Alternative Operating Subsidy Formulas can already benefit from the savings produced by updating their systems to reduce consumption of energy and water, therefore, EPC incentives would have no added benefit.

Notwithstanding the above, PHAs with Alternative Operating Subsidy formulas that have EPC Self-Approval discretion in their MTW Agreements can undertake EPCs. However, because the types of Alternative Operating Subsidy Formulas described in the preceding paragraph do not specify EPC Incentives, the MTW PHAs with these formulas will not be eligible for EPC Incentives. PHAs with Self-Approval discretion that have Alternative Operating Subsidy formulas which only specify the calculation of Formula Income are not eligible for the Resident Paid Utility (RPU) Incentive—as the RPU is not specified in their Alternative Formula—but are eligible for the other EPC incentives.

16.1. EPC Approval Letter

Some PHAs participating in the MTW Demonstration Program have been granted authority (typically through Attachment D of their MTW Agreements) to self-approve EPC transactions. For tracking purposes, MTW PHAs exercising self-approval authority must provide HUD with a self-approval letter, modeled after HUD's EPC Approval Letters. If any elements of the EPC Approval Letter change, the PHA must provide HUD a revised EPC Approval Letter. The EPC Approval Letter must be signed by the PHA's Executive Director and submitted to HUD as a record for the project.

16.2. Operating Subsidy

When an MTW PHA exercises the self-approval authority, the PHA must inform HUD that it will begin an EPC. The self-approval letter will be used as a reference for calculation of the annual Operating Subsidy.

MTW PHAs without Alternative Operating Subsidy Formulas, or MTW PHAs with Alternative Operating Subsidy Formulas that are limited to Formula Income must include EPC Incentives in its annual Operating Subsidy submission.

A self-approved EPC is subject to the 75% Rule (unless the MTW agreement specifies a different percentage) for the RPU and FRB incentives, and the Lesser of Costs or Savings Rule for the AOS incentive. MTW PHAs with self-approval authority must follow the yearly reporting requirements outlined in their respective MTW Agreement. MTW PHAs must submit to HUD, on an annual basis, the requisite data to complete an analysis of compliance with the 75% rule and the Lesser of Costs or Savings Rule. Notwithstanding the above, MTW PHAs with MTW agreements that specify Alternative Operating Subsidy formulas that do not include utility consumption, and MTW PHAs with MTW agreements that specify Alternative Operating

Subsidy formulas that have frozen utility consumption, are not required to report compliance with the 75% rule or the Lesser of Costs or savings rule.

16.3. Security Interest

If a PHA's creditor requires an encumbrance for its loan, the PHA must complete a Section 30 transaction. See Section 14, *Section 30*, of this Notice. There is no flexibility granted around Section 30 transactions for MTW PHAs.

16.4. EPC Term

The rules identified in Section 7.2.1, *FRB Baseline*, related to the EPC term apply to MTW PHAs with self-approval authority.

16.5. Procurement

A self-approved EPC must follow the same procurement requirements as a HUD-approved one.

16.6. Financing

A self-approved EPC must utilize third-party financing. An MTW PHA is prohibited from extending its EPC self-approval authority to another non-MTW PHA, regardless of the nature of its relationship (including a management agreement under MTW regionalization). MTW PHAs that do not have self-approval authority through Attachment D of their MTW agreements must follow normal EPC submission requirements as outlined in this Notice.

17. FURTHER INFORMATION

For assistance with EPC Program, or questions concerning EPC and/or RFP review processes, direct inquiries to the Energy Branch at PIHEnergyBranch@hud.gov. The HUD website also offers rich resources for EPC Program management at https://www.hud.gov/program_offices/public_indian_housing/programs/ph/pheb/eperformance. In addition, Chapter 17 of the Public Housing Procurement Handbook, 7460.8 REV-2, https://www.hud.gov/program_offices/administration/hudclips/handbooks/pihh/74608, provides guidance on procurement of EPCs.

18. PAPERWORK REDUCTION ACT

The public reporting burden for the collection of information associated with the EPC application and supporting documentation is estimated to average 560.0 hours, including the time for reviewing instructions, searching existing data sources, gathering, and maintaining the data needed, and completing and reviewing the collection of information. HUD may not conduct and

sponsor, and a person is not required to respond to, a collection of information unless the collection displays a valid OMB Control Number.

This collection of information is required for Public Housing Agencies (PHAs) that undertake energy conservation measures to receive conservation incentives pursuant to Section 9(e)(2)(C) of the United States Housing Act of 1937. The information will be used by HUD to determine whether applications meet eligibility requirements and application submission requirements. No assurances of confidentiality are provided for this information collection. The information collection requirements of this Notice were approved by OMB Control Number 2577-0305.

Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions to reduce this burden, to Reports Management Officer, Department of Housing and Urban Development, 451 7th Street SW, Room 4176, Washington, DC 20410-5000.

Richard J. Monocchio
Principal Deputy Assistant Secretary
Public and Indian Housing

Appendix I – Acronyms

1937 Act	U.S. Housing Act of 1937
A/C	Air Conditioning
ACC	Annual Contributions Contract
AOS	Add-On Subsidy Incentive (24 CFR §§ 990.185(a)(3) and 990.190(b))
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers
CFFP	Capital Fund Financing Program
CFP	Capital Fund Program
CFR	Code of Federal Regulations
COCC	Central Office Cost Center
DOT	Declaration of Trust
DORC	Declaration of Restrictive Covenants
ECM	Energy Conservation Measure
EPC	Energy Performance Contract
ESA	Energy Service Agreement
ESCO	Energy Services Company
FEMP	Department of Energy Federal Energy Management Program
FO	Local HUD Field Office
FRB	Frozen Rolling Base Incentive (24 CFR § 990.185(a)(1))
HCS	HUD Cost Summary
HDD	Heating Degree Days
HIP	Housing Information Portal
HUD	U.S. Department of Housing and Urban Development
HVAC	Heating, Ventilation, and Air Conditioning unit
IGEA	Investment Grade Energy Audit
IPMVP	International Performance Measurement and Verification Protocol
LCCA	Life Cycle Cost Analysis
M&V	Measurement and Verification
NEPA	National Environmental Policy Act
O&M	Operations and Maintenance
OFB	Operating Fund Benefit
OFFP	Operating Fund Financing Program
Option A	Retrofit Isolation with Key Parameter measurement Approach
Option C	Whole Facility measurement Method
PEL	Project Expense Level
PHA	Public Housing Agency
PHECC	Public Housing Environmental Conservation Clearinghouse

PIC	PIH Information Center
PIH	Office of Public and Indian Housing
PUM	Per Unit Month
RAD	Rental Assistance Demonstration
RBCL	Rolling Base Consumption Level
RE	Responsible Entity
RFP	Request for Proposal
RPU	Resident Paid Utility Incentive (24 CFR § 990.185(a)(2))
RRI	Rate Reduction Incentive (24 CFR § 990.185(b))
UA	Utility Allowance
UEL	Utility Expense Level

Appendix II – Definitions

Term	Definition
52722, Form HUD-52722, or HUD-52722	"Operating Fund Grant: Calculation of Utilities Expense Level (UEL) PHA-Owned Rental Housing." This form is used to calculate the Utilities Expense Level component of eligibility for Operating Subsidy pursuant to 24 CFR part 990.
52723, Form HUD-52723, or HUD-52723	"Operating Fund Grant: Calculation of Total Program Expense Level PHA-Owned Rental Housing." This form is used to calculate eligibility for Operating Subsidy under the Operating Fund in accordance with regulations at 24 CFR part 990.
75% Rule	For the FRB and the RPU incentives, HUD requires that at least 75% of the EPC Savings be used to pay EPC Project Costs. If less than 75% is used to pay EPC Project Costs, Operating Subsidy eligibility will be reduced by the difference between 75% of the EPC Savings and the actual percentage of utility cost savings. The 75% Rule is not applicable to the AOS incentive, for which HUD follows the Lesser of Costs or Savings Rule.
Add-On Subsidy (AOS) Incentive	The AOS, authorized under 24 CFR §§ 990.185(a)(3) and 990.190(b), increases the total Operating Subsidy HUD provides. There are two primary M&V methods associated with the AOS: Option A and Option C. The AOS is limited to the lesser of AOS-related EPC Project Costs or EPC Savings (the Lesser of Costs or Savings Rule).
Baseline Adjustment	HUD-approved adjustments to baseline values during the development or implementation phases.
Energy Conservation Measures (ECMs)	ECMs refer to measures that improve energy and/or water use efficiency, are Life Cycle Cost Effective, and involve energy and/or water conservation, retrofit activities, the use of renewable energy sources, and the creation of solar production, geothermal, or cogeneration facilities.
Energy Services Agreement (ESA)	The contract agreement between a PHA and an ESCO. The ESA provides for an installation or construction period as well as an ECM performance or guarantee period.
EPC (Energy Performance Contract)	An energy conservation program implemented by a PHA financed with non-HUD funds, which is the subject of a written approval by HUD pursuant to 24 CFR 965 Subpart C and 24 CFR 990. Throughout this Notice, the term "EPC" encompasses both ESCO and PHA self-developed energy/utility retrofit projects.

EPC Approval Letter	An official executed HUD letter issued to a PHA, that approves the EPC Incentives. Approval of the HUD incentives for each EPC is subject to the conditions and criteria outlined in the letter.
EPC Baseline Consumption	The utility consumption at a relevant site or project prior to the installation of ECMs. For all incentives, the EPC Baselines are identified in the EPC Approval Letters.
EPC Cash Flow	A method of calculating financial results using certain projections or presumptions (i.e., finance rate and projected inflation rate) in the EPC. The EPC Cash Flow is the net total of all annualized EPC Project Costs and the EPC Savings. EPC Cash Flow may refer to different periods, from one year to the entire term of the EPC.
EPC Debt Service	EPC Debt Service are debt payments used to repay debt undertaken to develop the EPC.
EPC Development Costs	EPC Development costs include design costs such as the cost of activities required to create an EPC Application, the energy audit costs, architectural and engineering (A/E) costs, planning costs, procurement costs, etc., as well as the costs to construct the EPC.
EPC Incentive	EPC incentives are funding elements in the Operating Fund formula that are intended to provide projects the financial benefit of consumptions savings generated by the EPC. There are three types of incentives PHAs may claim through the EPC program: Add-On Subsidy (AOS), Frozen Rolling Base (FRB), and Resident Paid Utilities (RPU).
EPC Project Costs	EPC Project Costs include the annual costs of principal and interest for a loan used to pay EPC Development Costs. They also include Measurement and Verification (M&V) costs, equipment replacements, potential equipment maintenance not covered under the Operating Fund Formula Project Expense Level (PEL), resident training, and any other costs approved by HUD.
EPC Savings	The utility cost savings generated by ECMs funded by eligible costs and installed through the EPC and maintained for the duration of the EPC incentive period and are subject annual M&V reviews.

EPC Incentive Savings Verification	EPC Incentive Savings Verification refers to the process of reviewing EPC Project Costs and EPC Savings each year. Verification takes into account the 75% rule, the lesser of EPC Project Costs and Savings, and applicable cross subsidization.
EPC Utility Rate	The utility rate used to calculate savings in an EPC.
ESCO (Energy Services Company)	ESCO is an entity that will develop, design, and build projects that save energy. This includes energy engineering firms as well as other energy engineering consultants hired by the PHA to undertake part, or all, of an energy/utility project.
ESCO Guarantee	ESCO guarantee refers to any guarantee by an ESCO to a PHA of consumption savings during the term of the EPC as part of the contract between the ESCO and the PHA. HUD has no regulatory role in reviewing or enforcing the ESCO guarantee, and the savings guaranteed are not the same as the EPC Savings calculated pursuant to HUD requirements and approvals.
Excess Savings	Excess Savings refers to the amount of EPC Cash Flow remaining after all EPC Project Costs are satisfied. Excess Savings are subject to the 75% rule, the lower of costs or savings rule, and cross subsidization.
FRB (Frozen Rolling Base Incentive)	The FRB EPC incentive involves freezing the RBCL (equal to the average of the RBCL or line 6 of the 52722) for a project where ECMs have been installed as part of an EPC. The consumption values for the utilities involved remain the same during the incentive period.
Funding Year	Funding Year refers to the Calendar Year for which an Operating Subsidy grant is provided.
HUD Cost Summary (HCS)	HUD Cost Summary is an MS-Excel workbook spreadsheet that summarizes the EPC Project Costs and EPC Savings for an EPC through all stages, accounting for EPC incentives such as the AOS, FRB, and RPU.
Incentive Period	The period of time during which HUD incentives are provided to the PHA. This period is based on the term approved by HUD in the EPC Approval Letter and begins when the first incentive is claimed in an Operating Subsidy Tool.

IGEA (Investment Grade Energy Audit)	An Investment Grade Energy Audit (IGEA) is a comprehensive survey of the building envelope, energy and water equipment, utility costs and usage, and other characteristics of a facility to develop energy conservation measures that account for the cost of installation, the associated utility savings, and the useful life of the asset. It is performed with engineering modeling and analysis to ASHRAE Level 3 energy audit standards.
Lesser of Costs or Savings Rule	Lesser of Costs or Savings Rule stipulates that the AOS incentive is limited to the lower of EPC Project Costs or EPC Savings.
Life Cycle Cost Analysis	The estimation of costs of proposed ECMs through their useful life in an EPC over the term of the contract.
Life Cycle Cost Effective	Life Cycle Cost Effective means that the savings from the proposed ECMs are sufficient to cover their own costs, plus the remaining depreciated costs for existing ECMs, including the cost of disposal.
M&V (Measurement and Verification)	M&V assesses the performance of an EPC annually (at minimum). M&Vs calculate and document EPC energy savings in accordance with the Energy Services Agreement (ESA). M&V based on International Performance Measurement and Verification Protocol (IPMVP) may include activities such as site surveys, metering of energy and independent variables, engineering calculations, and reporting.

M&V Options	HUD recognizes four technical approaches for completing M&V reports, in accordance with the International Performance Measurement and Verification Protocol (IPMVP). The Protocol is widely recognized as authoritative for M&V process and is accessible at https://evo-world.org/en/products-services-mainmenu-en/protocols/ipmvp. The four general approaches within the IPMVP are: Option A-Retrofit Isolation Approach (engineering analysis estimation); Option B-Retrofit Isolation or system level (measured); Option C-Whole-Building Verification (measured from facility use); and Option D-Whole Building or component level verification (stipulated or estimated). In general, Options B and C are actually measured savings, and Options A and D are modeled/estimated/stipulated savings.
M&V Plan	An outline of M&V steps that an ESCO (or PHA/PHA Consultant in the case of a self-developed EPC) intends to employ to evaluate ECM performance annually over the contract term. M&V Plans are approved by HUD as part of the EPC review and approval process.
M&V Report	An M&V Report is a written accounting of annual EPC Project Costs, consumption savings, and cost savings based on the agreed M&V Plan developed during the development of the EPC.
Negative Savings	Negative Savings occur where EPC Project Costs are greater than expected EPC Savings.
Operating Fund	The formula grant program established pursuant to Section 9(e) of the U.S. Housing Act of 1937 as amended, 24 CFR part 990, and annual appropriation acts.

Operating Fund Benefit (OFB)	For the AOS, during the incentive period, the RBCL is calculated each year based on the average of the prior 3 years' actual utility consumption levels (i.e., not frozen). A PHA receiving the AOS incentive under an EPC will also receive the OFB, further described in 24 CFR § 990.170(c). The OFB accrues to any PHA that experiences a reduction in utility consumption levels under the Operating Fund formula.
Operating Fund Formula	The formula used to determine Operating Fund eligibility, established by negotiated rulemaking as mandated by Section 9(e) of the U.S. Housing Act of 1937. For approved EPCs, EPC Incentives are elements in the Operating Fund Formula.
Operating Subsidy	Grants or grant amounts provided to public housing projects pursuant to the Operating Fund program.
Operating Subsidy Forms	The electronic HUD-52722 and/or HUD-52723 which in combination calculate Operating Subsidy eligibility and which PHAs submit annually for each project.
Reference Baseline	The reference baseline is the consumption prior to the installation of ECMs, which is derived by averaging 36 months (3 years) of consumption from the relevant reporting periods. The reference baseline is not prepopulated or frozen in Operating Subsidy Tools. The reference average baseline is identified in the EPC Approval Letter.
Reporting Period	The 12-month period for which actual utility consumption is measured each year. For historic AOS, this is the period from January 1st to December 31st. For the remaining incentives, it is from July 1st to June 30th. The UEL reporting period is July 1st to June 30th.
Rolling Base Consumption Level (RBCL)	The average yearly consumption levels for the 36-month period ending on June 30th, that is 18 months prior to the first day of the applicable funding period. See 24 CFR § 990.180(a)(1).
Resident Paid Utilities (RPU) Incentive	The reduction in utility consumption is determined by the difference between pre- and post-EPC consumption tenant allowances. The pre-EPC allowances are the baseline prior to the development of the EPC. The post-EPC tenant allowances are the consumption allowances after the development of the EPC. The RPU Incentive equals the projected post-EPC resident allowance consumption levels less the pre-EPC resident allowance consumption levels times the Utility Rate.

Utility Expense Level (UEL)	The PHA-paid utilities component of the Operating Fund Formula pursuant to 24 CFR § 990.180. The UEL is the output of HUD Form 52722.

Appendix III – Required Documents for PHA Submissions

New EPC Application Package	Documents required for Proposal Stage (not applicable for self-development EPCs): 1. Copy of RFP 2. HUD Approval of RFP New/first-time EPC Application Package must include the following: 1. PHA and EPC data 2. Energy Audit (IGEA Report) 3. Building and unit data by project and building type including the unit count 4. HUD Cost Summary Information 5. M&V plan 6. Baseline data in Excel format 7. Baseline Adjustment, i.e. sufficient documentation to validate baseline adjustment request 8. HUD EPC Cash Flow in Excel format 9. Escalation Rate documentation 10. Resident paid information for RPU incentive 11. Energy Services Agreement (if applicable) 12. Cost Reasonableness Certification 13. Repayment Self Certification 14. Letter from PHA Legal Counsel (if applicable) to verify that ESA is compliant to

	state and local laws and the PHA interests are fairly represented in the ESA 15. Utility Rate Structures to determine the marginal rate
EPC Application Package for Revisions	Required documents for requesting revisions to existing EPCs are the following: 1. Official Request (or Form or Data Collection) 2. Original EPC Approval Letter (including attachments) 3. Original EPC HUD Cost Summary 4. Revised HUD Cost Summary 5. Original Approved EPC Cash Flow 6. Revised (anticipated) EPC Cash Flow (including EPC project costs such as M&V costs, replacement costs, and other approved costs) 7. Inflation Factor back up documentation 8. M&V plan 9. Current year's M&V report 10. Energy Service Agreement (ESA) with all attachments and schedules searchable PDF format (if applicable) 11. Executed Loan Agreement (final) 12. HUD Approval Letters for Additional EPC Phases (if applicable) 13. Section 30 Approval Letter (if applicable) 14. Additional documentation showing/addressing: a. EPC debt balance (current) b. EPC debt balance (anticipated when repositioning occurs) c. Date the EPC debt will be paid in full d. Does EPC lender have a security interest in the associated ECMs?

	e. What kind of revision is requested? Is this a RAD, voluntary, or required conversions? f. The ownership entity for the converted property g. Does the EPC currently have a positive cash flow? h. Consumption Savings i. List of units in PIC spreadsheet (or in its successor HIP) j. Replacement Costs broken out by EPC incentive and type of equipment (Original and Revised) k. Other approved EPC Costs l. Proposed or approved escalation factors m. Original approved baselines and Revised baselines if required n. If RPU incentive is used: Original and Revised pre- and post-EPC utility allowance consumption and costs 15. Evolution of Baselines, including Utility Rate Structures to determine Marginal Rate
EPC Application Package for New Phases (Additional Phases)	In addition to the requirements in the "EPC Application Package for Revisions" section: 1. EPC Approval Letter (Most Recent) 2. Energy Audit 3. Energy Services Agreement (if applicable) 4. HUD 52722 and 52723 Forms baseline years and appropriate projects 5. Existing HUD Cost Summary, i.e. the most recent phase cost summary 6. Last two Annual M&V Reports

	7. In term extension with no re-procurement, documentation showing earlier EPC Phase was in repayment on or before 12/26/2007
EPC Incentive Savings Verification	Required documents for EPC Incentive Savings Verification are the following: 1. EPC Approval Letter 2. HUD 52722 and 52723 Submission 3. Utility Register (if Add On Subsidy) 4. M&V Report 5. If receiving an RPU incentive: Approved allowances pre- and post-EPC, as well as current resident paid rate
Section 30	Required documents with regards to Section 30 are the following: 1. Copies of current and effective Declarations of Trusts (DOTs) 2. Copies of current and effective Declarations of Restrictive Covenants (DORCs) 3. PHA Section 30 Approval Request letter 4. Draft EPC Amendment to the Annual Contributions Contract 5. PHA Legal Counsel Opinion on the transaction 6. Board Resolution authorizing EPC financing 7. Matrix describing details for each project for which the security interest is granted 8. Loan Documents as well as Loan Schedule with details on the loan relative to the EPC
Baseline Adjustments (During the Implementation and Repayment Stage)	Required documents on the type of baseline adjustments during the Implementation and Repayment Stage are the following: 1. Occupancy Adjustments (52722/52723)

	2. Building Usage Adjustments – supporting documentation 3. Meter Adjustment –12 months of consumption data logged before or after if 10% or greater change in consumption; third-party verification of meter calibration error 4. Switch from PHA-paid utilities to resident paid utilities or vice versa (see Form 52722 instructions)
EPC Closing (EPC Debt Payoff)	Required documents for EPC Closing are the following: 1. Document verifying final payment and remaining debt for EPC is zero ($0). 2. Data to include: a. PHA Code b. PHA Name c. EPC Approval Date d. EPC Lender e. Pay Off Date f. Project Number included in the EPC