**Attachment D-1:**

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 **Cost and Pricing - Definitions**

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**TABLE OF CONTENTS**

1.0 Investment Grade Audit Costs Insert page #

2.0 Pre-Construction Costs Insert page #

3.0 Construction Costs Insert page #

4.0 Implementation Cost Subtotal Insert page #

5.0 Total Project Price Insert page #

6.0 Profit Insert page #

7.0 Contingency Insert page #

8.0 Self-Performed Work Fee Insert page #

9.0 Annual Cost Categories Insert page #

**ATTACHMENT D-1**

**Project Cost and Pricing – Definitions**

# Investment Grade Audit (IGA) Costs

The Investment Grade Audit (IGA) is an audit that fulfills the obligations outlined in the Investment Grade Audit and Project Proposal Contract. The cost for the IGA is based on cost per square foot and is intended to be the market rate for a technical energy audit.

# Pre-Construction Costs

Pre-Construction Cost includes all costs, as described below, except for costs contained in the Investment Grade Audit which will be required prior to construction of all measures.

* 1. **Design and Other Engineering**

Design and other engineering includes all professional architecture and engineering costs required to design and specify projects to be installed as part of the Work. If design work is completed in-house, this includes burdened labor associated with design of measures included in the ESPC. If design work is subcontracted to an A&E firm, this is the quoted cost from the A&E firm plus burdened labor from ESCO energy engineers to oversee and direct A&E design services. Design and other engineering services include applicable code review costs. Any non-billable time or non-engineering supervision of engineers associated with engineers and/or design efforts will be included in the Other Pre-Construction Costs category.

Energy engineering includes all energy modeling, energy savings calculations and any additional energy engineering costs that were not accounted for in TEA costs. Costs include burdened labor, any non-billable time for energy engineers, supervision of energy engineers or other support, training costs for energy engineers shall be included in the Other Pre-Construction Indirect Costs category.

* 1. **Pre-Construction Services**

Pre-construction services include both construction management as well as project development services. In order to coordinate and bring many complex technical details together and present such proposal to the Owner, ESCOs may employ Business Development Representatives, Project Developers, and/or other resources that act as the key contact between the Owner and the ESCO. This line item includes all burdened labor, commission, and any other direct cost associated with presenting the best information to the Owner in an understandable format.

As an additional level of coordination, ESCOs may utilize a construction manager prior to construction of projects to solicit bids for final construction and also help review designs to ensure constructability. This cost includes all burdened construction manager costs associated with these efforts, if applicable.

* 1. **Other Pre-Construction Costs**

Site visits and Owner meetings are necessary before construction to ensure designs and equipment meet customer needs and fit project objectives. Other Pre-construction Costs may include but are not limited to: administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of project development staff.

# Construction Costs

All costs in this category are the direct costs from the subcontractors, vendors, and material providers to complete the Work, but shall not include any ESCO profit. The ESCO may add profit to these services but ESCO profit is not to be included in this line item. Profit shall be identified in the overhead and profit line item.

* 1. **Trade Subcontractors**

Trade subcontractors are construction contractors that are subcontracted directly to the ESCO. These subcontractors are selected by the ESCO from bidding on specifications developed by the ESCO. Such subcontractors may include lighting contractors, sheet metal contractors, piping contractors, electricians, plumbers, carpenters, controls contractors, and other trade contractors as necessary to complete the Work.

* 1. **Design-Build Subcontractors**

Design-build subcontractors are construction and design contractors that are subcontracted directly to the ESCO. Design-build subcontractors act as their own design agent and finalize the design of the Work Product to be installed. Such subcontractors include lighting contractors that complete their own audit and design; mechanical contractors that coordinate all of their own electrical, sheet metal work, piping and other support work; specialty contractors like pool cover vendors, and other specialty contractors necessary to complete the Work are included in this category. The design-build subcontracts work will be through the ESCO, with the ESCO approving all drawings and specifications prior to construction and with the ESCO taking responsibility for the performance of the design-build subcontractors.

* 1. **Direct Purchase Equipment**

Any equipment that is directly purchased by the ESCO is included in this category.

* 1. **Construction Management**

Construction Management includes the burdened labor cost of a construction manager and site superintendent directly supporting the implementation effort required to oversee and coordinate subcontractors on the project.

* 1. **Project Engineering**

During construction the ESCO's design engineers or contract A&E firm may make periodic inspections of work and support the construction manager with engineering analysis of required field modifications. This cost includes the burdened cost of engineering labor or quoted subcontract A&E services to support the construction manager in this effort.

* 1. **General Conditions**

General Conditions may be required on larger and longer term projects. General conditions may cover miscellaneous non-staffing costs directly related to the project, such as; job trailer, trailer office equipment, temporary utilities, permanent utility connection fees, barriers/security fencing, scaffolding, equipment rental, site guards, cleaning and trash and recycling dumpsters.

* 1. **Construction Completion**
		1. **Commissioning**

At the completion of the construction, the ESCO shall complete pre-functional and post-functional tests of all installed measures to ensure proper operation under load. This work is normally completed by commissioning agents. If this scope is completed by ESCO employees, it includes the burdened cost of commissioning staff. If this scope is outsourced to a commissioning firm, this cost includes the turnkey cost to provide necessary commissioning services.

* + 1. **Construction M&V**

At the completion of construction, the ESCO shall complete the measurement and verification of installed equipment to verify post-retrofit energy efficiency and operation. This effort is necessary to ensure systems will meet the guaranteed energy savings and start the M&V Services phase. If completed by ESCO staff, this cost shall include burdened labor of Measurement & Verification Engineers. If completed by external M&V agency, this cost includes the turnkey cost to provide necessary measurement & verification services.

* + 1. **O&M Manuals**

At the completion of projects, the ESCO is required to provide complete Operation and Maintenance Manuals to the Owner to allow for quick reference to written documents to provide sufficient maintenance to installed equipment. O&M manuals shall include necessary as-built architectural or engineering drawings. The cost to prepare most operations and maintenance raw materials should be included in relevant subcontractor costs above. This cost is to combine all subcontractor provided material into single O&M Manuals; print, copy, bind and deliver both printed and electronic copies to the Owner.

* + 1. **Training**

Training costs may be provided by subcontractors and as such will be included in their subcontractor bid. However, if the ESCO plans to provide training to the Owner, the burdened labor cost for such training shall be included in this line item. In addition to labor, this line item may include formal classroom training, training videos, online training programs, and other training efforts that include labor and materials required to provide necessary training to the Owner. This line item cannot be a repeat of training provided directly by subcontractors in subcontractor costs. Training labor may be utilized to supervise and coordinate subcontractor training sessions with the Owner.

* 1. **Other Construction Costs**

Site visits and Owner meetings are necessary at the conclusion of construction to ensure the project has been completed properly before Owner signs final acceptance notification. Such items as administrative support, legal review, accounting services, printing, copying, binding, office supplies, business travel, business meals and supervision of staff are all considered acceptable post-construction indirect costs. Other construction costs may include:

* + 1. **Permits**

Construction is completed in various jurisdictions requiring compliance with jurisdictional codes. ESCOs must pay code reviewers to review design drawings; and render decisions on designs meeting code. In addition, the ESCO must apply for and receive any necessary construction permits and licenses to operate based on designs and/or code review. These line items include all costs associated with paying code reviewers and application fees and inspections fees for such permits. This line item does not include design fees or engineering labor to work with code officials or submit permit applications. These labor fees shall be included in the engineering and/or construction management categories listed above.

* + 1. **Insurance**

ESCOs may be required to possess various levels of Builder's Risk Insurance, Automobile Liability Insurance, Professional Liability Insurance, and other General Liability Umbrella policies. This line item shall include an average amount of insurance that would be attributed to this project. Worker's Comp Insurance is not included in this line item and shall be included in the appropriate burdened labor cost categories.

* + 1. **Performance & Payment Bonds**

All ESCOs are required to bond the performance and payment of all work by a reputable surety approved for such work. The cost of the performance and payment bond shall be included in this category for the anticipated amount of work to be completed without expending contingency funds. If and when contingency funds are expended, any increase in bond cost must be included with contingency cost expenditure proposals.

* + 1. **Warranty Labor**

Warranty labor is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. All actual warranty replacement costs shall be included with the three line-items above and shall not be included in this line item. This item does not include the annual cost of supporting warranties post-construction, which is provided in item 9.1 below.

# Implementation Cost Subtotal

This is a subtotal of all the implementation cost expended by the ESCO to complete the Work for the Owner. No profit can be included in this subtotal for the ESCO or any close affiliate, parent, or subsidiary entity belonging to the ESCO. The Owner is entitled to audit or request as part of any pay application any and all costs included in any and all cost categories to ensure that all costs can be accounted for within standard Generally Acceptable Accounting Principles (GAAP).

# Total Project Price

The Total Project Price includes the estimated project cost, profit markup, audit, and contingency. The price is not estimated until the Investment Grade Audit is completed.

# Profit

The anticipated, but not guaranteed, gross profit associated with the project. Note that overhead is included in Construction Costs - General Conditions.

# Contingency

The project contingency is the asset of the Agency, and is held in escrow or encumbered, with the project total financed funding. As part of the project’s overall budget, it is co-managed by the Agency and Contractor. The intended purpose of the project contingency is to provide funds for unforeseen elements of the scope of work, which may become known only after implementation of the scope of work has begun. The Contractor will identify any unforeseen scope of work items, as well cost impact for those unforeseen scope of work items, to the Agency for review and approval prior to any of the project contingency being spent. Contractor will maintain an on-going record of the project contingency throughout the project. If, once all of the contracted scope of work has been completed or is nearing completion and there are project contingency monies remaining the Contractor will work with the Agency to determine the best use of the remaining funds. One option is for the Agency to consider additional energy conservation or capital improvement measures for implementation utilizing the remaining contingency dollars. Contractor and Agency will work together to review the potential added measures with the finance company to assure that the potential added measures are acceptable to the finance company.

# Self-Performed Work Fee

In order to enable confirmation through open book pricing, position descriptions are requested with hourly rates for labor and services as performed by the ESCO.

# Annual Cost Categories

* 1. **Warranty**

Warranty is the burdened labor cost associated with time anticipated to be expended by ESCO staff in supporting their direct purchase equipment warranties; and/or equipment provided by subcontractors. This warranty cost may also include costs for extended equipment warranties in those cases where the required/specified equipment warranty is longer than the equipment warranty offered by the manufacturer.

* 1. **Measurement and Verification**

The Measurement and Verification Services cost is the annual cost for the services necessary after acceptance of the project to annually verify the Energy Performance Contract guarantees. The cost for the guarantee is based upon the M&V option utilized, the risk of savings failure, the field time to measure building performance, and the time to document and present the report.

* 1. **Other**

Define any Other categories and their significance.