

VOLUME 1 – IGA SCHEDULES CHECKLIST

PREPARED BY: _____ **(AGENCY IOR NAME AND CONTACT #)**

REVIEWED AND SUBMITTED BY: _____ **(AGENCY REPRESENTATIVE AND CONTACT #)**

SCHEDULE A: **SCOPE OF CONSTRUCTION WORK**

___ **Description of the ECM(s) to be installed by the ESCO**

___ **Description of each ECM that will be grouped together as a single Construction Unit**

- a. If a Construction Unit consists of two or more ECMs that are grouped together, a single Scope of Services will be used for the Construction Unit. List the Construction Unit and each ECM constituting that Construction Unit. If there are 3 or more ECMs in a Construction Unit, please list the appropriate number of ECMs.

___ **Description of all Work the ESCO will perform for each ECM Installation**

SCHEDULE B: **DESCRIPTION OF AGENCY FACILITIES; PRE-EXISTING EQUIPMENT INVENTORY; CURRENT AND KNOWN FUTURE CAPITAL PROJECTS**

___ **Description of Agency Facilities (*Exhibit 1, Part A IGAA*)**

___ **Floor Plans of existing Agency Facilities and Sites (*Exhibit 1, Part B IGAA*)**

___ **Description of Existing Equipment**

- a. Ensure ESCO includes results of field measurements and monitoring if not included in IGA Vol. 2.

___ **Current and Known Future Capital Projects at the Premises**

SCHEDULE C: **INITIAL CONSTRUCTION AND INSTALLATION SCHEDULE**

___ **Software Requirements for Construction Schedule**

___ **Construction Schedule to include:**

- a. Design submission deadlines, design approval deadlines, equipment ordering and delivery, installation, startup and commissioning, post-installation M&V, construction unit completion dates for each construction unit, final completion date.

___ **Guaranteed Final Completion Date**

SCHEDULE D: **CONSTRUCTION UNIT COMMISSIONING AND PERFORMANCE TESTING; OPERATING PARAMETERS OF ECMS; MANUFACTURERS WARRANTIES**

___ **Test Parameters for All Major Equipment Installed**

- a. Include tabular summary of specific test parameters needed to be satisfied for each type and piece of major equipment being installed.
- b. Describe procedures to be utilized for Testing and Balancing.
- c. Balancer to be National Environmental Balancing Bureau (NEBB) or Associated Air Balance Council (AABC) certified.

___ **Manufacturers' Warranties**

- a. Provide a tabular summary of equipment warranties included in Contractor's proposal for major equipment, including the length of each warranty.

- b. Include copies of warranties offered if not included in IGA section 2.
 - i. The Contractor shall fill out and submit to the manufacturer all necessary warranty paperwork for each piece of major equipment (copies of completed paperwork to be included in Volume 2).

___ **Commissioning**

- a. Included for all ECMs.
- b. Updated Cx plan to be submitted during Design phase.
- c. Cx kick-off meeting should be included in the project schedule.
- d. Cx Approach and draft Cx Plan must clearly describe the proposed Cx process to be followed, members of the Cx Team, responsibilities for each including the witnessing for Agency team members, process for each Cx (for each ECM), issues resolution process as well as contents of the final Cx report.

SCHEDULE E: APPROVED SUBCONTRACTORS

___ **Subcontractor Listing and/or Categorization and Qualifications**

SCHEDULE F: CONSTRUCTION PRICE AND MILESTONE SCHEDULE

___ **Open Book Pricing of Third Party Installation Costs for Each ECM**

- a. Include table for each ECM which outlines the following.
 - i. Third party material and equipment supply agreements
 - ii. Labor contracts
 - iii. Contract price for aggregate costs including:
 - 1. Material and equipment
 - 2. Labor
 - 3. Total third party installation costs

___ **Aggregate Construction Unit Costs**

- a. Include aggregated table for each construction unit which sums all of the Installed Costs for each ECM in the Construction Unit, as well as shows the % of overall Construction Unit price.
- b. Aggregate contract price for ECMs should be taken directly from the Open Book Pricing table.
- c. Indirect costs should be included in a separate section of the table which can include:
 - i. IGA Audit Fee, Engineering and Design, General Conditions, Contractor's Insurance (i.e., performance bond), Project Management, Commissioning, Initial Training Fees, M&V Set Up.
 - ii. Final line to include Total Direct Installation Cost.

___ **Construction Price**

- a. Table should show the total installed costs of the Construction Units in the Project, the Contractor's overhead and profit calculations, and the full Construction Price.
- b. Fees that are calculated as a % of construction costs shall not be applied to taxes, insurance, permit fees, or other third party non-construction price.

___ **Milestone Schedule and Payment Schedule**

- a. Table should be completed for each Construction Unit. If there are not separate Construction Units, one table will suffice for entire project.
- b. Payment Schedule section should include Payment Number, Requisition for Month, and Cumulative Not-to-Exceed Percentage of construction amount that may be requested.
- c. Milestone Schedule should include sections for Element of Work, Percentage of Construction Amount, Milestone and Verification for Payment.

SCHEDULE G: BASELINES

___ **Energy and Water Baselines**

- a. Should include a description of the source of each, as well as how and where the performance period values shall be obtained.
- b. For each meter, list utility provider, utility account numbers, utility rate schedule, and which version of each rate schedule.
- c. Provide a tabular summary for the 36-month period of data evaluated.
- d. List the methods and software used to adjust baseline, and include all calculations that will be used as well as the source of the methodology (i.e., ASHRAE 90.1, FEMP, etc.).

___ **Operating Cost Baselines**

- a. Discussion of what or what not to include for cost savings in the baseline and post-implementation can be helpful for risk mitigation. Example costs are utility costs, equipment maintenance, equipment repair, etc.

___ **Impact of facility initiated and implemented ECMs. (Current or upcoming)**

___ **Weather normalization (Regression-based energy modeling)**

- a. Discuss how weather corrections will be performed.

SCHEDULE H: STANDARDS OF COMFORT

___ **Agency requirements for standards of comfort for each facility and functional areas**

- a. This shall include occupied hours, occupied temperatures, set back hours, and set back temperatures for both heating and cooling.
- b. References shall be made to any applicable Executive Order or energy guidelines in effect at the time, such as the current Executive Order 18 requirements.

SCHEDULE I: MEASUREMENT AND VERIFICATION PLAN; METHODOLOGY TO ADJUST BASELINES

___ **M&V Plan based on IPMVP Volume 1 2012 and Agency agreement confirmed**

- a. Contractor should submit M&V approach to the agency early in the IGA development process, before the submission of the Preliminary Audit Report of possible.

___ **Executive Summary/M&V Overview & Proposed Savings. This shall include the following:**

- a. ECM Summary Table with Proposed Savings
- b. M&V Plan Summary
- c. Utility Rates
- d. Schedule and Reporting for M&V activities
- e. Construction Period savings
- f. Rebates and Incentives
- g. Agency Witnessing.
- h. Performance period details
- i. Responsibilities of each party.

___ **ECM Specific M&V Plans**

- a. ECM Summary; scope; how savings are generated (ECM intent)
- b. M&V Option (per IPVMP)
- c. Baseline Development Activities; Baseline data and analyses performed; static factors; Routine and non-Routine Baseline adjustments proposed
- d. Proposed Savings Calculation Methods

- e. Post-Installation M&V Activities; describe intent; key variables; data to be collected; analysis to be performed
- f. Performance Period M&V Activities; describe intent; key variables; data to be collected; analysis to be performed
- g. O&M Reporting

___ **Baseline Adjustment Methodology**

- a. Detail the methodology and formulas to be used to adjust original baseline calculations.

Most common reasons for baseline adjustments are: weather, change in use, change in occupancy, change in operating hours, or other material changes that will impact the ECMs performed under the contract

SCHEDULE J: PROJECT CASH FLOW ANALYSIS AND SAVING GUARANTEE

___ **The following Cash Flow Analysis Tables shall be prepared by the ESCO working in conjunction with and subject to the approval of the SEU Financial Analyst.**

___ **Annual Cash Flow Analysis Table - Bond Interest Rate & 0% Escalation Rate**

___ **Annual Cash Flow Analysis Table - Bond Interest Rate & EIA/NIST Escalation Rate**

___ **Annual Cash Flow Analysis Table - ESCO Energy Savings Guarantee**

___ **General Cash Flow Analysis Parameters**

- a. Complete separate table for each building as needed

SCHEDULE K: [CONTRACTOR AND] AGENCY MAINTENANCE RESPONSIBILITIES

___ **Agency Maintenance Responsibilities**

- a. Agency may not be required to provide maintenance on any piece of equipment that exceeds the manufacturer's recommended maintenance.

___ **ESCO Maintenance Responsibilities.**

___ **Facility/Premises Maintenance Checklists / Logs**

- a. Contractor shall create or use equipment manufacturer maintenance checklist or logs for the Agency to use to demonstrate equipment is being properly maintained in accordance with equipment manufacturer's recommendations. All documents shall be available for inspection by Contractor.

SCHEDULE L: CONTRACTOR [AND AGENCY] TRAINING RESPONSIBILITIES

___ **ESCO Training Responsibilities**

- a. Indicate topics, number to be trained, location and costs for both construction period and post acceptance training of agency personnel. Stipulate who will conduct the training sessions.

___ **Agency Training Responsibilities**

SCHEDULE M: OPERATING PERIOD PAYMENTS

___ **Table of annual service fees**

SCHEDULE N: ESTIMATED INSTALLMENT PAYMENTS

___ Installment Payment Schedule