**IGA SOW – Template**

The SOW for the Investment Grade Audit (IGA) includes a purpose, scope, and goals of the work to be performed. This SOW will also include the applicable addresses and points of contact, along with general requirements.

The following IGA SOW template was adapted from an actual project SOW. It describes the information needed by the agency to establish that the recommended ECMs are technically sound, pricing is fair and reasonable, and the project is in the best interest of the government. It provides information and instructions for working on site as well as a format for the written report.

Note that some agencies may not require an IGA or its SOW but may alternatively use a PA or other feasibility study if the submitted report is sufficiently detailed for the project size and scope.

**IGA SOW
Template**

***Site Location***

1. **Project Scope –** Per **GC.19 ECM IGA Phase** of the UESC Model Agreement, the Contractor shall providea detailed study to determine whether particular ECMs proposed by the Contractor are feasible (the “IGA"). *Utility Name* shall provide an IGA, cost estimate, and economic analysis for implementing the following ECMs at *Facility Name, City / State*.

ECMs approved for further development:

*Building Number 1, 2, 3, etc.*

* + 1. HVAC upgrade
			1. Replace steam unit heaters with natural-gas-fueled radiant heaters
			2. Replace domestic hot water tanks with solar hot water system
			3. Upgrade energy management control system (EMCS)
			4. Retrofit pumps with variable-frequency drives
			5. Provide commissioning

*Building Number 1, 2, 3, etc.*

* + 1. Lighting retrofit
			1. Replace existing T-12 fixtures with T-8
			2. Provide daylighting controls

*Building Number 1, 2, 3, etc.*

* + 1. Building envelope

*Building Number 1, 2, 3, etc.*

* + 1. Water conservation

Technical Analysis:

1. Provide baseline of energy and water consumption
2. Provide estimated energy and cost savings, including the methodology and basis for energy savings calculations, including all assumptions and detailed spreadsheet calculations showing how savings were determined
3. Provide estimated installed costs
4. Provide a detailed narrative for each feasible ECM describing equipment to be removed or replaced, and new equipment to be installed
5. Provide sufficient design, plans, and specifications, and installed cost breakdowns for the project including each feasible ECM.
*[Insert requirement for percentage completion of design (15% to 65% is typical depending on the ECM). List ECMs for which specifications, catalog cut sheets, and pertinent equipment parameters such as power rating, estimated energy consumption, input/output, power ratio, lighting level, noise levels, estimated equipment life, locations, etc., will be expected.*
6. Provide electrical plans complete enough to thoroughly express the ECM electrical requirements, and include single line diagrams, load calculations, and the projected power plan.
7. Provide mechanical plans with sufficient detail and include as needed:
	1. A plumbing floor plan for the mechanical rooms, plumbing fixtures, floor drains and equipment locations
	2. An HVAC floor plan showing equipment locations, duct layout, and preliminary piping runs
	3. A mechanical room plan to show major equipment and maintenance access space
8. Provide details for government support which will be required during implementation of the ECM, e.g., changes in operations, movement of equipment, access, etc.
9. Provide details for utility interruptions needed for implementation of each ECM by type (gas, electricity, water, etc.), extent (room number, entire building, etc.) and duration.
10. Provide details of potential adverse environmental effects for each ECM. The government will provide information indicating areas suspected of containing asbestos, lead paint, or other hazardous materials located in proposed work areas.
11. Provide a construction plan and schedule including estimated construction time in calendar days.

Cost Factors: Provide all assumptions, calculation methods, and other processes used to develop the costs and savings estimates:

Life-cycle-cost analysis utilizing the mutually agreed upon process, standards, and calculation factors, which include estimated annual operations costs, (e.g., increased use of alternate fuel sources, replacement filters) and increased maintenance costs (e.g., relamping with a higher cost product, etc.)

Total estimated ECM cost to the Government (engineering, design, construction, and other required over the life of the payback term)

Estimated cost-of-money rate (percent)

Breakdown of financial incentives/rebates for each ECM (if any)

Estimated annual energy and O&M current costs and savings including details on estimated annual savings for each ECM

Estimated breakdown of implementation costs for each area of energy savings

Estimated unit costs for major components and systems

1. **Deliverable Requirements**

The IGA Report deliverable shall include the following items / sections:

1. Executive Summary including introduction, scope, approach, major assumptions, summary findings (including total life-cycle-cost analysis results), conclusions, and recommendations / path forward
2. Detailed findings and supporting analysis by building for mechanical scopes
3. Detailed findings and supporting analysis for the lighting retrofit opportunities by building
4. Detailed findings and supporting analysis for the building envelope opportunities by building
5. Detailed findings and supporting analysis for the water / sewer retrofit opportunities by building
6. Detailed findings and supporting analysis for commissioning opportunities
7. Detailed findings and supporting analysis for renewable energy opportunities
8. Proposed Performance Assurance Plan including commissioning, M&V, and O&M

The report deliverable shall be *(set as appropriate for size and complexity of the project)*:

1. *Preliminary/or multiple* Submittal – (35% / 90%)
	1. 8-1/2 x 11 materials for all items in the report
	2. 11 x 17 sheets for any preliminary facility sketch information that is provided, if applicable
	3. Provide 3 copies bound in 3-ring binders and one electronic copy on CD.
	4. Allow the Government *(number appropriate to project size/complexity)* workdays for review and comment
2. Final Submittal
	1. 8-1/2 x 11 materials for all items in the report
	2. 11 x 17 sheets for any preliminary facility sketch information that is provided, if applicable
	3. Provide 3 copies bound in 3-ring binders and one electronic copy on CD.
3. **Quality of Work**

*Utility Name* is responsible for professional and technical accuracy and coordination of all work or services furnished. Products submitted by *Utility Name* shall be reviewed by *Agency* for compliance with Government requirements and criteria. Errors or deficiencies in the performance of the *Utility Name* shall be corrected by *Utility Name* at no additional cost or fee to Government.

1. **Security**

All work areas are unclassified and all products resulting from this contract will be unclassified. *Utility Name* shall not discuss or release information concerning operations or recommendations developed during the course of this contract to general public, newspapers, or other media, public officials, community leaders, etc. without prior approval of the Government. Products developed under this contract will be retained by the Government at the conclusion of the contract.

1. **Site Visit Access**

All requests for site visits shall be arranged in advance and shall be cleared by *Agency*; point of contact is Mr/Ms. \_\_\_\_\_\_\_\_\_, Tel. \_\_\_\_\_\_\_\_\_\_\_\_, before site visit. Conference room space will be provided as available for use by *Utility Name* during visits. Limited quick copy capacity will be provided.

1. **General Requirements**
	1. *Utility Name* shall ensure that the study incorporates *Agency* Fire Protection Criteria
	2. The results of the study will be delivered to the *Agency* in the form of a printed report. Electronic versions, in Microsoft Word and Excel, are also acceptable and encouraged

C. *Agency Division, Agency Name / Command*

Technical Representative POC:

Name

Phone and Fax

Contract Specialist:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

D. Site name \_\_\_\_\_\_\_\_,

Technical Representative POC:

Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Phone and Fax \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

*Utility Name* responsibility is directly to the CO via the Contract Specialist. Any requested change/deviation in scope must be brought to the attention and/or approved by the CO. In no case will changes to the contract scope be made *at the Activity level or* by any person other than the CO.

**7. Site Investigation**

*Utility Name* shall:

* Make an in-depth field investigation to determine the actual conditions and work requirements necessary.
* Furnish all labor, material, transportation, and equipment necessary to make the survey and field investigation.
* Obtain the data by visiting the site, consulting with Government representatives, and by other action as necessary, to develop accurate and complete information.
* Be responsible for obtaining record drawings from the agency.
* Confirm existing site conditions affecting all aspects of the subject project.

**8. Submission Requirements**

*Utility Name* shall respond to all Government review comments in writing. Responses to Government review comments shall be made part of the next submission to the Government by *Utility Name*.

**9. Project Milestones: *develop milestones appropriate to project size/scope***

*%* Report submission *14* business days after contract award

Government review *28* business days after contract award

Final Report submission *42* business days after contract award

**10. Project Submittal Distribution:**

a. Draft Report:

Identify Gov’t Staff 3 Copies

b. Final Report

Identify Gov’t Staff 3 Copies