

INVESTMENT GRADE AUDIT: GUIDELINES CHECKLIST

Project name: _____

Agency: _____

Owner's Representative: _____

Date of Review: _____

GENERAL INFORMATION

- Overview
 - o ESCO is approved by SEU.
 - o IGA content consistent with Agency requirements.
 - o OMB boiler plate schedules used.
 - o All buildings included in the scope are appropriate given facility master plan that has been shared with IOR.
 - o Overall percentage energy and cost savings are reasonable.
 - o Rebates and incentives were adequately pursued by ESCO.
 - o Reviewer's written comments provided to Agency, and all comments, analysis, and supporting work archived and recallable upon request.
- IGA Development Process
 - o 100% IGA submission is a completed document, and includes resolutions from all comments from previous versions.
- Baseline
 - o Documentation includes historic utility analysis, weather normalized baseline, and utility rate analysis. Software, methods, and calculations disclosed.
 - o Proposed baseline utility rates were compared to current State utility rates and are agreeable.
- ECMs
 - o ECMs have not been included in previous ESPC project.
 - o The application of the ECM is appropriate.
 - o The ESCO has discussed and properly identified the risks of emerging/underutilized technologies and brought them to the Agency's attention as necessary.
 - o ECMs are appropriately grouped, where possible, to provide a well-rounded ROI containing both "low hanging fruit" and higher payback capital projects. Agencies priority were addressed.
- Cash Flow Analysis
 - o The project is under a 20-year payback term.

- In-house labor, deferred maintenance, or any other operational costs are not included in the savings.
 - Cash flow analysis is shown in two utility rate scenarios 1. Zero % escalation 2. EIA/NIST for each fuel. The ESCO is to use default EIA/NIST inflation rate, which will be the maximum escalation scenario.
 - The project should deliver 10% annual net savings to the agency based on guaranteed savings.
- Measurement and Verification
- Reviewer has examined percentage of project savings from electricity, gas, other fuels, water, and O&M, to identify where M&V should be focused.
 - Plans are suitable to ECMs.
 - Plans adhere to the IPMVP guidelines.
 - Defines how the static factors will be tracked throughout the performance period.
 - Static factors are those that are not expected to frequently change such as schedules, occupancy, installed equipment, etc.
 - Defines the responsibilities of both parties.
 - Defines how non-routine and routine adjustments will be applied.
 - Plan includes a minimum of one inspection of ECMs by the ESCO during each savings year.
 - M&V costs should be targeted between 2-5% of annual savings range, and no greater than 10%.
 - Strategies and costs provide good balance between cost and Agency risk.
- O&M Responsibilities
- Where Agency accepting O&M responsibilities, reviewer has assessed the likelihood of problems and their potential impacts, and has brought these to the Agency's attention.
 - Agency was provided a clear list of their responsibilities, and list has been reviewed with appropriate facilities and maintenance staff.

ENERGY

Complete for each form of energy and water:

- Energy type: _____
- Baseline unit rate adequately documented.
- If blended rates are used, the methodology for calculating them is valid.
- Escalation rate adequately documented and consistent with SEU Guidebook.

ECM DETAIL

Complete for each ECM (For the project as a whole, not necessarily for each building):

- Technical Category: _____
- ECM Name: _____
- Proper technology expert reviewed as necessary.
- ECM suitable for intended purpose and consistent with agency requirements.
- Construction cost consistent with similar ECMs in recent projects.
- Proposed construction schedule reasonable and consistent with previous projects.
- Commissioning plan is adequate.
- Methodology used to calculate baseline energy use adequate and supported by the included measured data.
- Operating hour and other assumptions are reasonable and well-documented.
- Energy savings estimate consistent with similar ECMs in recent projects, and is adequately documented.
- Interactive effects with other ECMs considered in the calculations.
- Assessed the need for expert review of building models (DOE-2, EnergyPlus, etc.) and obtained secondary reviews as necessary.
- Simulation models adequately calibrated.
- Sampling of equipment to calculate baseline performed correctly.
- Energy cost savings calculation consistent with energy savings estimate and baseline energy unit prices.
- Added O&M costs for additional equipment adequately documented, and included in cash flow i.e. solar maintenance plans.
- For ECMs with expected useful life less than project term, replacement plan is documented.
- Implementation expense of ECM is traceable to pricing calculations in body of IGA.
- Post-installation M&V activities appropriate and adequate to determine potential to provide savings.
- Annual M&V activities adequate and consistent with IPMVP guidelines.
- Planned measurements during post-acceptance M&V confirm performance as opposed to confirming operation.
- Any sampling performed during M&V is adequate and consistent with IPMVP guidelines.
- Where M&V method depends on customer-maintained equipment, reviewer comments address the ESCO's assessment of potential risks and/or recommended backup plan.
- Where ECMs or M&V depend on connection to government LAN, reviewer comments address the ESCO's assessment of potential risks.
- M&V expense for each ECM adequately documented.

Services during the performance period are adequately documented and consistent with previous projects of this size.

_____ of _____
(Signature of Reviewer) (Contracted Independent Owners Representative)

certifies that they have reviewed the attached Investment Grade Audit of the proposed ESPC project for _____ and verified that the required content items are completed.
(Agency)

This verification does not remove the responsibility for the submission from the agency.