**

*Title*

ESPC Process Doc. P3-03

r. 10-25-14

Responsibility: PF

**INVESTMENT-GRADE AUDIT: REVIEW CHECKLIST**

Project name:

FEMP ID#:

Agency:

Project Facilitator:

Date of Review:

**Overall**

* IGA content consistent with Agency requirements
* All buildings included in the scope are appropriate given facility master plan
* Overall percentage energy and cost savings are reasonable
* Rebates and incentives were adequately pursued by ESCO
* Risks of emerging/underutilized technologies properly identified and brought to Agency’s attention as necessary
* 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
* Risk, Responsibility, and Performance Matrix consistent with Agency expectations
* M&V strategies and costs provide good balance between cost and Agency risk
* Reviewer has assessed the overall reliance on Option A methods to ensure appropriate, given risks.
* Reviewer has examined percentage of project savings from electricity, gas, other fuels, water, and O&M, to identify where M&V should be focused
* Reviewer’s written comments provided to Agency, and all comments, analysis, and supporting work archived and recallable upon request

**For each form of energy and water (duplicate for each type of energy):**

* 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 FEMP guidance.

**For each ECM (duplicate for each ECM):**

* Technical Category:
* ECM Name:
* FPE notified of need for technology expert review, if 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.
* Energy-related O&M cost savings reasonable, well-documented and consistent with FEMP guidance, and supported by customer evaluation
* Added O&M costs for additional equipment adequately documented, and included in cash flow
* For ECMs with expected useful life less than project term, replacement plan is documented
* Post-installation M&V activities appropriate and adequate to determine potential to provide savings
* Annual M&V activities adequate and consistent with current FEMP guidance
* 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 FEMP guidelines
* Where M&V method depends on customer-maintained equipment, reviewer comments address the potential risks and/or recommend backup plan
* Where ECMs or M&V depend on connection to military LAN, reviewer comments address potential risks

**TO Schedules**

TO-1

* Implementation period savings and payments consistent with Agency expectations and FEMP guidance
* Estimated annual cost savings traceable to and consistent with ECM-level calculations
* Guaranteed cost savings consistent with estimated annual cost savings
* Annual contractor payments consistent with guaranteed cost savings, and are less than guaranteed savings in each contract year

TO-2

* Implementation expense of each ECM traceable to pricing calculations in body of IGA
* M&V expense for each ECM adequately documented

TO-3

* Implementation price consistent with total on schedule TO-2
* Performance period service prices adequately documented and consistent with previous projects of this size
* Interest payments for each year consistent with project interest rate and loan balance
* Loan balance correct for each year

TO-4

* Energy baseline and savings for each ECM and each form of energy consistent with calculations provided in the IGA
* Energy cost savings for each ECM and each form of energy consistent with energy savings and energy unit costs
* Other energy-related O&M costs for each ECM consistent with documentation in IGA

TO-5

* Cancellation ceiling for each year is consistent with remaining principle per Schedule TO-3 and agreed-upon cancellation penalty ceiling

**Summary of Key Issues/Findings**

In addition to formal comments, list main areas of concern identified in review.