



Third Party Engineer Expectations

presented by

The Utility Savings Initiative

N.C. DIVISION OF
ENVIRONMENTAL ASSISTANCE
AND CUSTOMER SERVICE



Objective of PC

The taxpayer should NEVER see their rates increase to pay for the project!

1. Everything proposed must be legal
 - Meet PC legislative requirements
 - Meet all code and permit requirements
 - For state projects meet SCO requirements
2. All work by all parties must add value not COST
3. Owners expectations must be realistic and achieved
4. Project must be profitable for ESCO



Training Objective

- To clarify the role of the qualified reviewer (QR) and third party engineering firm in Performance Contracting.
- To identify best practices for third party involvement that streamline the process, reduce costs of review and improve the successful executions of Energy Services Agreements
- Collaborative meeting



Background

Qualified Reviewer (QR) is defined as a Licensed Professional Engineer or Architect with familiarity with energy projects and measurement and verification. The QR is required by legislation or statute at certain points.

May either be:

1. A qualified owner employee
2. A qualified third party engineer or engineering firm



Summary of Involvement

3rd party Involvement through ESCO Selection:

	State Agencies and Universities	Community Colleges	Local Government	K-12 Schools
Preliminary Audit of Facilities	As Requested by Owner	As Requested by Owner	As Requested by Owner	As Requested by Owner
Review of RFP before Issuance	USI Review Required	USI Review Required	USI Review Required	USI Review Required
Pre-Bid Meeting	Not Recommended	Not Recommended	Not Recommended	Not Recommended
Proposal Evaluation	Required if no QR on staff	Required if no QR on staff	Required if no QR on staff	Required if no QR on staff
Participation in oral interviews	As Requested by Owner	As Requested by Owner	As Requested by Owner	As Requested by Owner
Cash flow review once one ESCO selected	Required if no QR on staff	Required if no QR on staff	Required if no QR on staff	Required if no QR on staff





Preliminary Audit of Facilities – Not required

Possible roles for a Third Party:

- Walk through all potential buildings and get knowledge of the customer needs.
- Guide the customer on which facilities to consider
- Fill out the requirements and issues to address in the Buildings to be Analyzed forms
- Help assemble all of the information for the RFP and pre-bid meeting if needed



Review of RFP before Issuance – Not required

Possible roles for a Third Party:

- Review proposed timeline of project
- Suggest modifications to the evaluation matrix based on customer's stated goals
- Review Buildings to be Analyzed forms



Pre-Bid Meeting – Not required

Possible roles for a Third Party:

- Attend the pre-bid meeting
- Could be requested to run the pre-bid meeting if owner desires
- May provide assistance to owner in answering technical questions



RFP Proposal Evaluation - REQUIRED

The QR is expected to:

- Provide an unbiased review only based on the text submitted in the proposal
- Submit qualitative comments showing the positives and negatives of each proposal

It is recommended the reviewer walk all major facilities included in the proposal before review. This may be done before RFP is released or during the RFP.

Example template available from USI



RFP Financial Evaluation - REQUIRED

Comments generally focus on:

- The match between the original proposed ECMs and the cost proposal
- Realistic achievement of estimated savings and implementation costs
- Breakdown of project costs for engineering fees, overhead, etc. (look closely at percentages)
- Costs in each attachment should match where appropriate



Financial Evaluation - REQUIRED

Once the final proposal is submitted, and the contract awarded, the QR should prepare a stamped letter summarizing their evaluation of the proposal.



Summary of Involvement

3rd party Involvement through IGA acceptance:

	State Agencies and Universities	Community Colleges	Local Government	K-12 Schools
<i>Review of IGA</i>	Recommended by LGC and by USI	Recommended by LGC and by USI	Recommended by LGC and by USI	Recommended by LGC and by USI
<i>Review of the ESA (Legal Contract)</i>	As Requested	As Requested	As Requested	As Requested
<i>Verification of Construction and Installation as part of acceptance</i>	To Be Determined by Owner	To Be Determined by Owner	To Be Determined by Owner	To Be Determined by Owner
<i>Review of Annual Reconciliation Report</i>	Required	Recommended	Recommended	Recommended





IGA Review – Not required

This step is not required by statute, but a PE review letter, at the end of the process, is recommended by the LGC and USI.



IGA Review – Not required

There should be joint meetings between the ESCO, USI, and the owner to address issues and come to agreement. The QR can be brought in as requested by the owner and represent the owner as the Third Party. USI should be copied on all major correspondence and be involved enough to address concerns throughout the IGA.



IGA Review – Not required

The third party representative should be a:

- Quality Assurance Consultant
- Facilitator
- Expediter

Your involvement should move the process along more smoothly and quickly. Otherwise your involvement is adding COST not VALUE



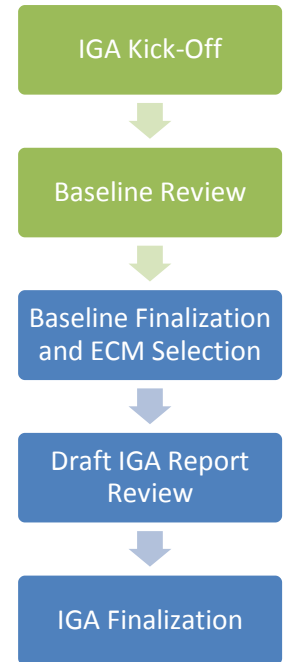
IGA Review – Not required

It is the owner's project; the Third Party is a representative of the Owner, but NOT the Project Engineer. The Owner may or may not accept recommendations by the Third Party. Common issues the Third Party should look for:



IGA Review – Kick-Off/Baseline

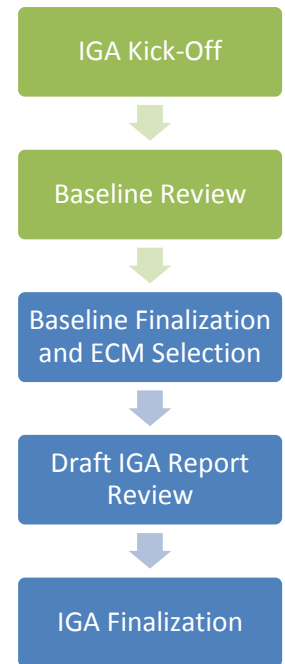
- Were there any potential red flags in the M&V as described in the RFP? How much was proposed to be spent on M&V in the proposal phase?
- Are key measures being data-logged appropriately?
- Are there aspects of the project that may not have data logging in the baseline phase? Is this acceptable?





IGA Review – Kick-Off/Baseline

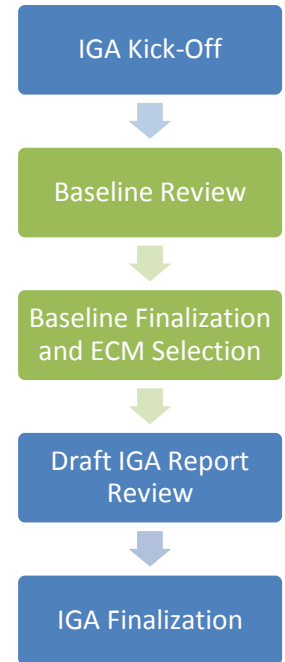
- Will there be a bin spreadsheet analysis or hourly analysis that can be shared directly?
- Is there a specific modeling software? Some are open source while others are proprietary and expensive.
- Will the to-be-shared information be actual files or the input and output files?





IGA Review – Baseline & ECM Evaluation

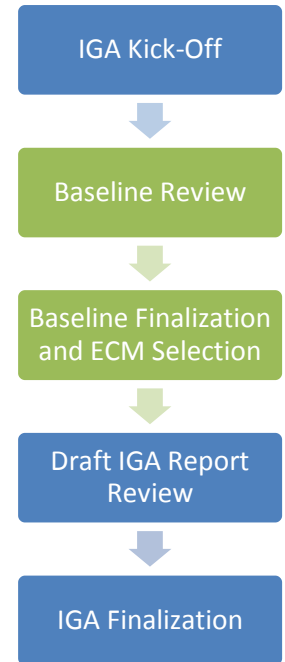
- Is the baseline established properly for the customer's facility? A baseline by measure if savings are going to be verified by Options A or B. A whole building baseline for Options C and D
- Does the customer understand how the baseline is calculated taking into account current code requirements of ventilation for heating and air conditioning modifications? Is it an adjusted baseline or actual baseline?





IGA Review – Baseline & ECM Evaluation

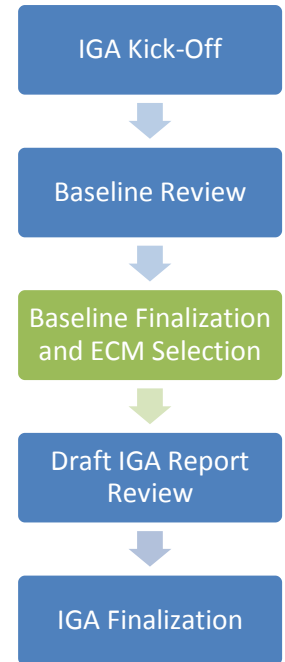
- Are there any issues with data collection – bad loggers, bad placement or delays in collection?
- Are there any issues with documentation in the building blueprints or facility plans where information is not available and must be assumed?
- Are there any anomalies in the baseline?
- Is a three-year average appropriate, or should some other period be used?





IGA Review – Measurement & Verification Plan

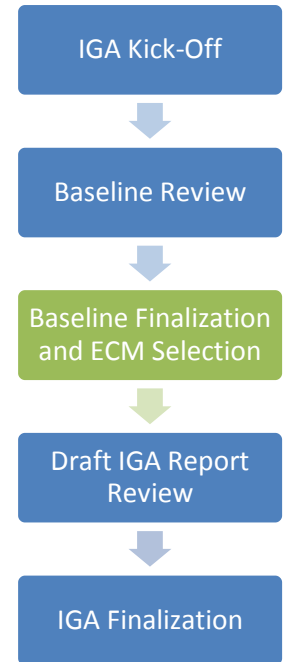
- Does the M&V plan meet the Minimum Requirements Guidelines?
 - Are the proposed protocols appropriate for the specific measures and titled correctly?
 - Is the plan in compliance for using stipulated savings?
- If any measures do not conform to minimum guidelines, they need to be documented





IGA Review – ECM Selection

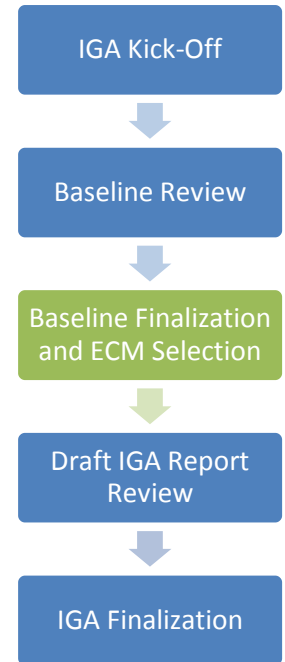
- Are there any technical errors in the assumptions or calculations?
- Is the information presented clearly to show calculation methodology and how variables were determined for the baseline and savings?
- Was the process of energy model calibration documented and does it meet minimum guidelines?





IGA Review –ECM Selection

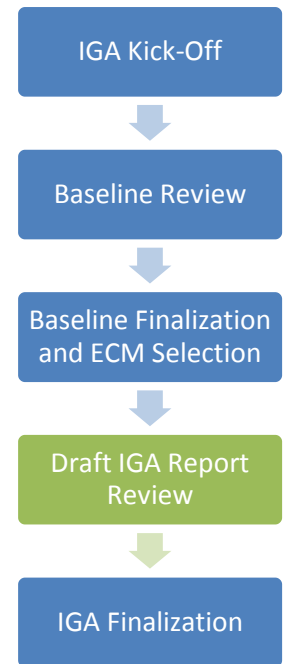
- Are the rate schedules documented properly?
- Is the proper rate analysis used? Are Time-of-Use or Demand charges taken into account properly or is an average rate used?
- Are there any technical errors in the assumptions or calculations?





IGA Review – Draft IGA

- Is there proper language about a guarantee for rate escalation if used?
- Is proper documentation of guaranteed Operations and Maintenance Savings provided?
- Does the owner understand when and what maintenance is their responsibility?
- Has the ESCO properly documented their proposed activities during the Guarantee Period?





Other Potential Involvement

- ESA review
 - Final IGA forms scope or work for ESA
 - ESA proper is the boiler plate contract
- Construction assistance and project acceptance
- Review of annual reconciliation report
 - Required for state governmental units



Typical Fees

- Proposal Evaluation - Recommend providing an hourly rate and an expected range
 - 4-6 hours per written proposal
 - 3-4 hours for one financial proposal review
 - Additional time for facility walk-throughs/preliminary audits



Typical Fees

- Review of IGA – 1 to 2% of total project cost
- Review of Reconciliation Report – 1 to 1.5% of annual savings
- For small (< \$2 Million) and large (\$>20 Million) projects, it may be important to add a floor and a ceiling on the costs



Some Actual Times

- 7 years
- IGA in process 25 months and not yet ready for submission
- 26 months from start to COS
- 12 Months best so far



Where Time Gets Added

- Investigating measures that stand little or no chance of becoming part of the project
 - How does ESCO recoup their costs if measure not part of project?
- ESCO security instrument not in place
- Financing the project
- ESA not negotiated and ready for signature
- Incomplete / inaccurate info. submitted



Process Termination

- 6 projects terminated only 1 at RFP stage
- Poor communication / collaboration with owner
- Poor communication / collaboration with 3rd party to resolve issues with comments
- Failure to enlist USI assistance to resolve issues up front when identified



Thank You for Your Attention

