

Disclaimer:

The State Energy Office of North Carolina would like to thank the National Energy Services Coalition for allowing the use of this resource for USI participants. A great deal of work went into compiling this information into a single location. As you go through this program and/or have additional questions, please contact Reid Conway reid.conway@ncdenr.gov.



GESPC-U Lesson #113:

Preparing a Investment Grade Audit Report

FYI: Terms and Acronyms can be found on the last page

Summary: With all the field work and a tremendous amount of information gathered, it's time to summarize, analyze, and determine measures for the preliminary investment grade audit report.

All the field work's been done. A tremendous amount of information has been gathered, summarized, analyzed, measures have been agreed to and we've reached the point in the process where we're ready to prepare a preliminary investment-grade audit report.

To reinforce the importance of each step lets walk through, line by line, some of the items and details of what is recommended to be included in this preliminary investment-grade audit report.

While not specifically called out in the model documents, the addition of an executive summary to kick off this overview of the larger investment-grade audit report is not uncommon. This two-page summary of the events and decisions that were made that brought the parties to this point regarding a potential project, and the summary of project information that's been gleaned so that reviewers and supervisory authorities have a quick synopsis of the project -- still under consideration.

And just another reminder of the tremendous value a qualified third-party agent can play in the review of the investment-grade energy audit especially if the owner does not have on staff the level of Technical and energy performance contracting experience and expertise required. These reviewers can provide value every step along the way, but for certain in the final review of the IGA.

This report, which is called the investment grade audit report, provides the engineering and economic basis for negotiating a potential energy savings performance contract, the implementation of the work envisioned. It's important that all parties recognize this as a preliminary report since upon its completion, another all-important face to face meeting to walk through each section, each assumption, each role and responsibility, the scope or work proposed to be included in the project and how the energy savings and pricing were arrived at should follow the delivery of this preliminary report. Only upon absolute concurrence between the Owner and the ESCO should the ESCO team move to completing the final IGA and Project Proposal.

The pieces and parts of this almost complete version of the investment-grade audit report includes items such as the contact information -- who were the parties that were engaged both from the owner and from the ESCO's staff. All the people participating in the project should be identified along with their role and their contact information.

Another piece is a summary table of the recommended energy and water savings measures. This table should detail each measure's total design and construction costs, annual maintenance cost, the first-year cost avoidance -- both in dollars and energy units, and the simple payback for each measure. This table even details the equipment service life for each measure, which is important to know, in and of itself. Under some states' performance contracting legislation, the cost weighted average useful life of the equipment included in the project prescribes a limit on the number of years a project may be financed.

Suffice it to say, the level of detail in this table should provide a single glance overview of the project.

Project participants may very well agree to commit to a 20-year pay back for a rooftop unit that has an expected life of seven years? If that's allowed, and if they agree, the contract documents should make very clear the required parties actions and the conditions that bound the replacement of that device when the time comes to protect the integrity of the savings and the guarantee. Things like capability with other systems and design concept and surely efficiency must be effectively outlined in order to maintain the integrity of the project.

Next comes the summary of the baseline annual energy and water use and cost by fuel type. You may recall from a previous lesson that we took a pretty deep dive into the utility analyses and the development of baseline energy use and baseline energy costs from which the project savings will be compared. It is here in the IGA report where an overview of that information is provided.

This is where you see the absolute contrast between the pre-construction and the projected or calculated post-construction energy and water consumption in both units and dollars. And it should illustrate the cost savings expected if all the recommended measures are implemented and the total percentage savings of the total facility energy cost.

As noted previously, the investment-grade audit is the one time where the parties find or should find a pre-construction description of the existing conditions in Schedule A. This might include things like wall, roof and window or facility envelope construction and conditions their current age, apparent leaks, insulation failures and the like, as well as similar information for each measure -- so that future reviewers looking back on the project -- get a good understanding of what things looked like prior to the project. Also mentioned previously, pictures are a

great way to document conditions in the IGA so that reviewers get a real look at the pre-construction conditions of the site and its systems.

To recap, the ESCO has been asked to provide a summary description of each of the recommended measures including their total estimated cost and savings. That would include of course all of the associated costs of design and engineering, construction and construction management, commissioning, measurement and verification, maintenance service cost, overhead and profit. And, importantly, the first-year energy reductions and associated cost avoidance for each measure. And at this point in time none of these should be a surprise for the owner, given that the ESCO has already conducted a meeting with the owner based on preliminary findings and there have been ongoing conversations throughout the development of the final detailed analysis phase of the of the IGA.

Owners and ESCOs alike quickly grow frustrated should surprises arise that require the reworking of these intertwined measures, costs, and considerations. While all this information is included in the overview, it will also require a deeply detailed presentation of the IGA. Having the State Energy Office involved in this presentation to ask questions and to get a preliminary review of the project is important and is required.

Finally, another very important but sadly often overlooked areas -- a discussion of the measures considered but not investigated in detail. This can become really important down the line when people wonder how a several million-dollar project didn't include, Y and Z measures. It's important to have identified that those measures were considered, and why they fell out of the project -- so that reviewers get a full perspective of the comprehensive investigation done for this investment-grade audit. These could become future owner projects.

It also illustrates the completeness of these assessments. And that's what these projects have always been intended to be is a

comprehensive look at all the work that could be attended to, through these paid for by savings projects -- so it is important not only to mention the things that are included but the things that unfortunately got left out along the way.

This draws us to the conclusions and recommendations of the overview section of the IGA summarizing the amount of work that can be completed and will pay for itself within the time prescribed by statute or as directed by the Owner whichever is shorter, and the recommendation to approve moving forward to implementation, to the guaranteed Energy savings performance contract.

Once you feel comfortable with the information above, please scroll down and complete the quiz below. Email your answers to Reid Conway at reid.conway@ncdenr.gov. If you have additional questions, feel free to include them as well.

Lesson 13 Quiz

1. What value does a third-party owner's representative bring to a project and the review of an IGA??
2. State the purpose of the Investment Grade Audit Report.
3. List some of the issues that should be reviewed by and between the Owner and the ESCO at the Investment Grade Audit Report meeting.

4. Provide in your own words a definition of Cost Weighted Average Useful Life.
5. True or False; it may be that some of the devices and systems exhaust their useful life prior to the end of the total project financing repayment.
6. List some of the considerations that should be clear in the contract documents should a device or system need to be replaced during the life of the GESPC project finance term.
7. Within the IGA, the price of every measure should be listed. Besides unit cost, what other factors are included in determining this price?
8. Describe the best way to eliminate surprises from popping up in the IGA.
9. What is the value of including measures considered but not finally included in the project?

Terms and Acronyms

3 rd Party	3 rd Party Engineer
COS	Council of State
DOA	NC Department of Administration
DPI	NC Department of Public Instruction
ECM	Energy Conservation Measure
ESA	Energy Services Agreement
ESC	Energy Services Coalition
ESCO	Energy Service Company could be interchangeable with QP
ESPC	Energy Saving Performance Contracting
GEPC	Guaranteed Energy Performance Contracting
GESPC	Guaranteed Energy Saving Performance Contracting
GS	General Statute
GU	Governmental Unit
IGA	Investment Grade Audit
IPMVP	International Performance Measurement and Verification Protocol
LGC	Local Government Commission (Housed in the Treasurer's Office)
LGU	Local Governmental Unit
M and V	Measurement and Verification
OR	Owner's Representative
OSBM	NC Office of State Budget and Management
PC	Performance Contracting
Pre-Bid	Meeting held prior to the bid opening
QP	Qualified Provider could be interchangeable with ESCO
QR	Qualified Reviewer
RFP	Request for Proposal
SEO	State Energy Office
UNC	Refers to the UNC System
USI	Utility Savings Initiative