

Performance Contracting

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Savings or Avoided Costs

Savings =

Avoided costs =

Terms and Acronyms

- Performance Contract
 - Guaranteed Energy Savings Agreement
 - Energy Savings Performance Contract
- ESCO – **E**nergy **S**ervice **C**ompany
- RFP – **R**equest for **P**roposal
- IGA – **I**nterim **G**rade **A**udit
- M&V – **M**onitoring and **V**erification
- ESA – **E**nergy **S**ervices **A**greement
- ECM – **E**nergy **C**onservation **M**easure
- LGC - **L**ocal **G**overnment **C**ommission

What is Performance Contracting

- An ESCO designs and proposes a package of energy cost reduction measures, installs or implements those cost reduction measures, and guarantees the savings of the cost reductions.
- The issuer pays for the package over time using the stream of revenue provided by the energy reduction measures
- Third party monitoring and verification

Why not do it yourself?

- Often opportunities to reduce energy costs are well known but owners are unable to take advantage of them
 - Capital
 - Expertise
 - Manpower
- Can you guarantee the savings?

Performance Contracting Advantages

- A Design-Build process with a single point of responsibility
- Provides capital
- Provides engineering and project management expertise
- No reduction in utility funding over project life
- Guaranteed performance/savings

Performance Contracting Intangibles

- Improved lighting quality
- HVAC
 - Improved indoor air quality
 - Improved occupant comfort
- Potentially provide educational / teaching opportunities
 - Dashboards
- Energy Star
 - Building labeling

Performance Contracting Pitfalls

- Failure of owner to perform due diligence
- Failure to understand contract
- Overly optimistic expectations / promises
 - RFP
 - IGA
 - M&V
- Time must be allocated to see process through

Identify a Project

- Building energy costs greater than \$1.50/sq ft
 - Annual utility costs greater than \$300,000
- 100,000 sq ft or greater
- Building use and occupancy stable
 - No significant renovations or additions planned
- In NC contracts have ranged from \$400,000 to \$60,000,000

Steps to a Successful Project

- The State Energy Office will provide assistance during each step of the process
- All documents and steps must conform to General Statutes and North Carolina Administrative Code

Steps to a Successful Project

- Assemble stakeholders
- Create data packet for project (Application)
- Issue RFP
- Evaluate responses (select ESCO)
- Negotiate and Perform IGA
- Negotiate contracts
 - ESCO contract
 - Financial contract
- For K-12 schools contracts receive Local Government Commission approval
- County Commissioner Resolution

Assemble Stakeholders

- Convene a project team consisting of:
 - Engineering
 - Finance
 - Maintenance & operations
 - Administration
 - Purchasing & Legal
 - Building occupants
- The State Energy Office will provide assistance to the team

Project Data Packet

- Create project scope
 - 3 year billing history for project building(s)
 - Occupancy, use and schedule
 - Indoor air requirements
 - Temperature and humidity requirements
 - Lighting level requirements
 - Prior audit or survey reports
 - Schematics/prints and equipment lists
- This packet will serve as the application to SEO

The Request For Proposals

- SEO has a template available for use
- Specify any special circumstances (security, building schedule - work schedule conflicts etc.)
- Mandatory onsite meeting
 - Schedule building walk through (site visit)
 - Data packet available to all ESCOs
 - Specify evaluation method and criteria
 - Deadline for responses (give adequate time)
- All questions should be handled in writing with both questions and answers available to all responders.

RFP Evaluation & ESCO Selection

- Cost benefit analysis performed for each option
- Substantial conformity with RFP
- Guaranteed savings and contract period
- Project cost and time to complete
- Product quality manufacturers warranties
- Check references – use predetermined questions

RFP Evaluation & ESCO Selection

- Create short list of responders for oral interview
 - Allow each ESCO a set amount of time to describe their company
 - Ask each ESCO a predetermined set of questions
 - Ask each ESCO the same questions

Investment Grade Audit

- SEO has a sample contract
- Audit within 10% of RFP calculations
 - Yes – issuer at risk for cost if project terminated
 - No – ESCO at risk for cost if project terminated
- M&V methodology must be stated and conform to:
 - US DOE's "Measurement and Verification Guideline for Energy Savings Performance Contracting"
 - The "International Performance Measurement and Verification Protocol"
 - "ASHRAE 14-2002"
- Certification by registered engineer that M&V protocol presented is capable of measuring actual savings
 - May wish to engage same group that will do independent third party M&V for year end validation & reconciliation of savings

Energy Service Agreement

- ECMs and their installation
 - Specify conditions required: lighting levels, temperature & humidity, water temperature, indoor air quality etc.
 - Specify equipment capacity, operating range maintenance requirements etc.
 - ESCO provides many of the equipment details but owner must be satisfied that all of the items specified are acceptable

Energy Service Agreement

- Maintenance contract
 - Owner may contract with third party for maintenance service
 - The ESCO may provide the maintenance service
 - The owner may provide maintenance
 - Cost of the maintenance contract is to be included in the total project cost

The Guarantees

- Construction bond
 - The construction bond ensures the equipment is delivered as specified, properly installed and properly commissioned
 - The construction bond will cover the cost of the project completion if for any reason the contractor is unable to complete the project

The Guarantees

- Guaranteed savings bond
 - This bond is a standing guarantee that all of the guaranteed savings specified in the contract can be paid
 - The ESCO “shall provide security to the governmental unit in the form acceptable to the Office of the State Treasurer and in an amount equal to 100% of the total cost of the guaranteed savings contract”

Measurement & Verification

- Actual savings measured are compared to guaranteed savings by third party
- If actual savings less than guaranteed savings, ESCO pays the difference to the governmental unit
- The cost of the required third party M&V is to be included in the contract

Assistance Available From SEO

- List of pre-qualified ESCOs
- Application assistance (project identification)
- Standard RFP available
- Standard Investment Grade Audit Contract available
- Standard Energy Services Agreement available
- Proposal and IGA Evaluation available
- List of qualified engineering service / M&V providers

Legislative Basis

- General Statute – Article 3B 143-64.10 through 143-64.17L
- General Statute – Article 8 142-60 through 142-70
- North Carolina Administrative Code – 01 NCAC 41B.0101 through 41B.0901
- LGC Application for Approval of Guaranteed Energy Savings Contracts

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