Volume I – Technical Submission (Re-Bid)

Response to Request for Quotes for A Guaranteed Energy Savings Project At:

Pennsylvania Department of General Services (DGS) – Capitol Complex, Harrisburg, PA (Re-Bid)

Project No. GESA 2019-2 (REBID)
Contract No. DGS GESA 2019-2 REBID

Commonwealth of Pennsylvania
Department of General Services
Harrisburg, PA

April 17, 2020

Submitted by:

Company Name: McClure Company
Company Address: 4101 North Sixth Street, Harrisburg, PA 17110
Contact Person: Jon Zeller, Account Executive
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April 17, 2020

Ms. Becky Tomlinson
PA Department of General Services (DGS)
403 North Office Building
401 North Street
Harrisburg, PA 17120

Re: McClure Company Proposal – Request for Quotes for A Guaranteed Energy Savings Project At:
PA Department of General Services – Capitol Complex, Harrisburg, PA (Project No. GESA 2019-2 (REBID) / Contract No. DGS GESA 2019-2 REBID)

Dear Ms. Tomlinson,

McClure Company is pleased to submit our proposal response providing the PA Department of General Services (DGS) a customized Guaranteed Energy Savings Contract for Capitol Complex facilities. In accordance with the RFQ's specifications, please find enclosed three (3) hard copies of our Technical (Vol I) proposal, four (4) hard copies of our ECM/Costs (Vol II) proposal, and two hard copies (each) of our SDB &VBE Participation Submittals – Appendix D (Vol III). An electronic copy in PDF format of our Vol I & II proposals are also saved to a USB thumb-drive and included as requested.

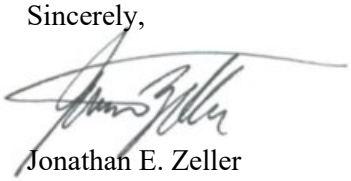
Proposed GESA Programs & Options: Driven towards addressing all DGS defined "Core ECMs", McClure has developed two (2) program options for DGS consideration that achieve its GESA goals and objectives, which are both further detailed within Volume II (ECM/Cost Submission). These two flexible GESA program options consist of:

1. **"Base" GESA Program:** A fully self-funded program utilizing guaranteed energy savings and limited "Material" savings associated with making lighting system improvements. Act 129 energy rebate dollars are also included to help buy-down overall installation costs. This program addresses twelve (12) of the Core ECMs and includes (9) additional measures that enhance payback and positive cash flow back to DGS over the 18-year repayment term. For proposal purposes, this program is utilized as the basis of McClure's enclosed Volume I Technical Submission (Re-Bid).
2. **"Base Alternate" GESA Program:** As an alternate program option, this program incorporates "Base" program savings with a limited level of energy related cost savings to addresses all fifteen (15) Core ECMs, and includes twelve (12) additional innovative improvements that further enhance overall economic, technical, and environmental benefits.

The McClure Value – Local, PA-Based Resources, Expertise, Capabilities: As PA's largest ESCO and Design-Build mechanical contractor headquartered within Pennsylvania, McClure Company has greater capabilities and more local resources available to manage construction, repairs, regular service and emergencies (24/7) than any other ESCO. In addition, we have direct experience already working within these Capitol Complex facilities; providing HVAC installations and maintenance services to Arsenal GSA Offices, Agricultural Building & Vet Laboratory, Finance, South Office, Rachel Carson, and the State Records Center. Geograpgically, we are ideally positioned and best organized to develop and then implement customized ECMs to all DGS facilties located within the Capitol Complex.

McClure Company's PA Vendor Number is #117888. We acknowledge receipt of all four (4) DGS issued project Bulletins, two (2) Re-Bid Bulletins, and that our proposal is valid for 180 calendar days from the date of submission. Thank you in advance for considering McClure Company and our proposal for the PA DGS Capitol Complex GESA program.

Sincerely,



Jonathan E. Zeller
McClure Company – Account Executive
(484) 560-8437 / jonzeller@mcclureco.com

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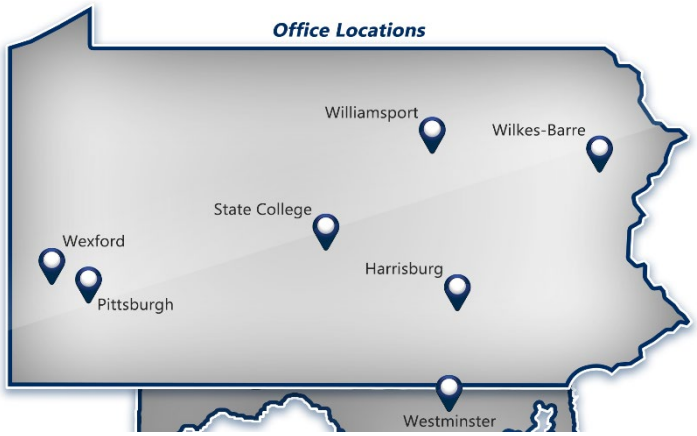
Executive Summary



Geographically Positioned to Best Service DGS Over the Long-Term

✓ *More Local, PA-Based Resources to Manage Construction, Repairs, Regular Service and Emergences than any other ESCO*

McClure Company is pleased to submit our proposal in consideration of providing the PA Department of General Services (DGS) a customized Guaranteed Energy Savings Contract for the Harrisburg Capitol Complex. This contract will increase energy efficiency and reduce operational costs while addressing DGS's "Core Energy Conservation Measures (ECMs)" and other critical capital improvement needs, such as implementing new LED lighting, HVAC systems improvements & upgrades, fuel conversions, enhancing control capabilities, water conservation & plumbing improvements, weatherization, and many other improvements. Under our proposed "Base" GESA program, McClure's professional engineers and estimators devised a plan that addresses twelve (12) of the Core ECMs and includes nine (9) additional measures that provide increased economic, technical and environmental benefits. McClure also prepared a supplemental program under "Base Alternate" for your consideration, which utilizes a limited level of Energy Related Cost Savings (ERCS) to further enhance DGS's ability to more cost effectively achieve its infrastructure improvement, efficiency, and cost-savings goals. Please see our **Volume II (ECM/Cost Submission)** for additional details relating to both of these programs.

McClure's overall approach to GESA project development is to remain conservative with savings levels that are included within the GESA model. After analyzing all project information provided to date, additional data collection is required during the IGA phase to develop a better and more accurate understanding of DGS utility usages, costs, and baselines. In addition, other supplemental information is needed, such as obtaining existing utility agreements, to confirm the feasibility of select ECMs proposed under McClure's Base Alternate program further discussed throughout Volume II (ECM/Cost Submission). We are confident in our ability to professionally complete this task while also preparing ECM options for DGS consideration, and further customizing this GESA program to Commonwealth priorities, needs and requirements.

GESA Experience, Local Resources, Capabilities: As PA's largest Design/Build mechanical contractor and Energy Services Company ("ESCO") based within Pennsylvania, McClure Company has more local resources available to dedicate towards project development, construction management, installation, repairs, regular maintenance service and emergencies (24/7) than any other ESCO in PA. Our 650+ member in-State staff consists of professional engineers (PE's), installers, service technicians, and project managers dedicated to assisting our clients improve their infrastructure. Over the last 5 years alone, we have developed and implemented over $600M worth of customized energy saving solutions, design/build projects and services. McClure has successfully completed over 200 guaranteed energy services programs throughout the commonwealth, many of which serve other municipal type clients with similar facilities, operations, and infrastructure to the DGS sites. Key staff from our Harrisburg headquarters will be utilized to support the Capitol Complex GESA program, ensuring its success.

McClure's Value to DGS and its GESA Program: Our decades of industry experience implementing PA GESA solutions coupled with our local, PA-based resources and mechanical design-build self-performance capabilities makes us the provider of choice, uniquely suited to serve as DGS's ESCO partner today. Key benefits provided by McClure to DGS include:

✓ **A Collaborative, Flexible and Cost-Effective Approach** that Achieves DGS's GESA Program Goals

- We will develop various ECM scope options for consideration, thus providing DGS the opportunity to tailor the GESA program to its needs and requirements for each site.

McClure Company is a Prequalified, Accredited, and Certified Energy Services Company (ESCO)

- ✓ **In-House Design Engineering** Expertise & Capabilities – Providing A More Cost-Effective Approach
  - McClure Company will serve as the project's Design Consultant, which results in significant cost-savings for the Commonwealth of PA, enabling us to address more capital improvements for each investment dollar.
- ✓ **Direct Self-Performance** Capabilities of All Mechanical, Plumbing and HVAC System Installations – A More Cost-Effective Approach
  - Streamlining construction schedules, better controlling costs, and ensuring higher quality installations.
- ✓ **Leveraged Purchasing Power** – Competitively Procured Products & Technology at Lower Costs
  - As PA's largest design/build Mechanical Contractor and Energy Services Company, McClure will leverage our purchasing relationship with manufactures and vendors to negotiate lower overall product and material costs on behalf of the Commonwealth.
- ✓ **Product & Vendor Neutrality** – An Open and Objective Approach Throughout Development and Construction
  - Remaining brand and manufacturer neutral affords an unbiased selection and competitive vetting process for equipment and systems that best meets the needs of the DGS.
- ✓ **Tailored Turnkey GESA Program** – Ability to Promptly Develop and Implement
  - Our local Harrisburg Headquarters will be utilized as GESA Construction Office, providing full construction management over all subcontracted trades and firms involved with implementing the final GESA scope.
- ✓ **Industry Reputation** of GESA Project Performance & Customer Satisfaction
  - Like our other completed DGS GESA projects, we are confident that our savings projections will be realized for DGS over the term, and that quality installations will be completed to schedule.
- ✓ **Financial Strength and Stability**
  - We maintain a $200 million bonding capacity and manage over $350M in guaranteed energy savings commitments to PA public institutions.
- ✓ **A Local, Experienced ESCO & Services Partner**
  - McClure Company is a full-service design/build, construction, and services company with 24/7/365 emergency service capabilities.

The GESA programs we have developed for DGS's consideration are fully customizable, and provide turnkey, comprehensive energy saving solution options towards implementing all Core ECMs (under Base Alternate). In addition, our offering includes other innovative, cost-saving strategies for heating and cooling DGS facilities that increase energy savings while reducing the carbon footprint of these sites. Together, we will further customize this Guaranteed Energy Savings program that addresses DGS's capital improvement needs, plans, and deferred maintenance issues while effectively reducing operational costs, emissions production, and utility demands over the long term.

"Schuylkill County's program was implemented in 2009 and each year the County has recognized savings greater than guaranteed in our agreement. These additional savings exceeded our guarantee by over 30%...The County of Schuylkill's experience with McClure Company has certainly been positive."

Lisa M. Mahall, P.E.
County Engineer and Real Estate Director
Schuylkill County, PA

Quote Signature

Offeror's Representations and Authorizations. Offeror by signing on the signature page and submitting its Quote understands, represents, acknowledges and certifies that:

1. All information provided by, and representations made by, the Offeror in the Quote are material and important and will be relied upon by the Issuing Office in awarding the contract(s). Any misstatement shall be treated as fraudulent concealment from the Issuing Office of the true facts relating to the submission of this Quote. A misrepresentation shall be punishable under 18 Pa. C.S. § 4904.

2. No attempt has been made or will be made to induce any firm or person to refrain from submitting a Quote on this contract, or to submit a Quote higher than this Quote, or to submit any intentionally high or noncompetitive Quote or other form of complementary Quote.

3. The Quote is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive Quote.

4. To the best knowledge of the person signing the Quote for the Offeror, the Offeror, its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four (4) years been convicted or found liable for any act prohibited by State or Federal law in any jurisdiction, involving conspiracy or collusion with respect to bidding or proposing on any public contract, except as disclosed by the Offeror in its Quote.

5. To the best of the knowledge of the person signing the Quote for the Offeror and except as otherwise disclosed by the Offeror in its Quote, the Offeror has no outstanding, delinquent obligations to the Commonwealth including, but not limited to, any state tax liability not being contested on appeal or other obligation of the Offeror that is owed to the Commonwealth.

6. The Offeror is not currently under suspension or debarment by the Commonwealth, or any other state, or the federal government. If the Offeror has received, within three years of the issuance of this RFQ, a Notice of Default from the Commonwealth, other state or the federal government, then the Offeror shall submit, as part of the Technical Submission, seven copies of a written explanation of why such Notice of Default was issued. This written explanation shall not exceed 1 sheet (2 pages) and shall not count towards the sheet and page limit established for the Technical Submission of the Quote.

7. The Offeror has not, under separate contract with the Issuing Office, made any recommendations to the Issuing Office concerning the need for the services described in the Quote or the specifications for the services described in the Quote.

8. Each Offeror, by submitting its Quote, authorizes all Commonwealth agencies to release to the Commonwealth information related to liabilities to the Commonwealth including, but not limited to, taxes, unemployment compensation, and workers' compensation liabilities.

9. Until the awarded GESA Contractor receives a fully executed and approved written contract from the Issuing Office there is no legal and valid contract, in law or in equity, and the GESA Contractor should not begin to perform.

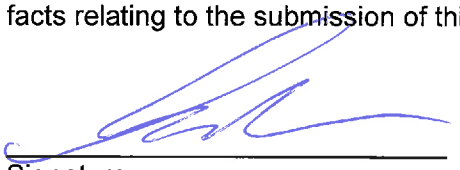
10. The total energy savings projected in the final scope of work will be at least 95% of the savings projected in the Quote and that the project will be self-funded over the financial term of the project (maximum term of 18 years.)

11. Offeror agrees and certifies in accordance with the enclosed Commonwealth of Pennsylvania:

    - Nondiscrimination/Sexual Harassment Clause
    - Tax Liability Certification
    - Americans Disabilities Act
    - GESA Contractor Integrity Provisions
    - GESA Contractor Responsibility Provisions
    - Environmental Statement
    - Compliance with State and Federal Statutes, Rules and Regulations
    - Non-Collusion Affidavit

I am authorized to sign this Quote on behalf of the Offeror and I agree and state that

McClure Company (Name of Firm) understands and acknowledges that the above representations are material and important and will be relied upon by the Department of General Services in awarding the contract(s) for which this Quote is submitted. I understand, and my firm understands, that any misstatement shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this Quote.



Signature

Shayne A. Homan
Print Name Legibly

Vice President
Title

APPENDIX B

Non-Collusion Affidavit

INSTRUCTIONS FOR NONCOLLUSION AFFIDAVIT

1. This Noncollusion Affidavit is material to any contract awarded pursuant to this Quote. According to §4507 of the Commonwealth Procurement Code, 62 Pa.C.S. §4507, governmental agencies may require Noncollusion Affidavits to be submitted with Quotes.

2. This Noncollusion Affidavit must be executed by the member, officer, or employee of the Offeror who makes the final decision on prices and the amount quoted in the Quote.

3. Bid rigging and other efforts to restrain competition, and the making of false sworn statements in connection with the submission of Quotes are unlawful and may be subject to criminal prosecution. The person who signs the affidavit should examine it carefully before signing and assure himself or herself that each statement is true and accurate, making diligent inquiry, as necessary, of all other persons employed by or associated with the Offeror with responsibilities for the preparation, approval or submission of the Quote.

4. In the case of a Quote submitted by a joint venture, each party to the venture must be identified in the Quote documents and an affidavit must be submitted separately on behalf of each party to the joint venture.

5. The term "complementary Quote" as used in the affidavit has the meaning commonly associated with that term in the Quote process and includes the knowing submission of Quotes higher than the Quote of another firm, any intentionally high or noncompetitive Quote, and any other form of Quote submitted for the purpose of giving a false appearance of competition.

6. Failure to submit an affidavit with the Quote in compliance with these instructions may result in disqualification of the Quote.

NONCOLLUSION AFFIDAVIT

DGS Project Number: GESA 2019-2

State of Pennsylvania :

County of Dauphin : s.s.

I state that I am the Vice President (Title) of McClure Company (Name of Firm) and that I am authorized to make this affidavit on behalf of my firm, and its owners, directors, and officers. I am the person responsible in my firm for the prices(s) and the amount of this Quote.

I state that:

1. The price(s) and amount of this Quote have been arrived at independently and without consultation, communication or agreement with any other contractor, Offeror, or potential Offeror.

2. Neither the price(s) nor the amount of this Quote, and neither the approximate price(s) nor approximate amount of this Quote, have been disclosed to any other firm or person who is an Offeror or potential Offeror, and they will not be disclosed before the Quote submission date.

3. No attempt has been made or will be made to induce any firm or person to refrain from proposing on this contract, or to submit a Quote higher than this Quote, or to submit any intentionally high or noncompetitive Quote or other form of complementary Quote.

4. The Quote of my firm is made in good faith and not pursuant to any agreement or discussion with, or inducement from, any firm or person to submit a complementary or other noncompetitive Quote.

5. McClure Company (Name of Firm) its affiliates, subsidiaries, officers, directors, and employees are not currently under investigation by any governmental agency and have not in the last four years been convicted or found liable for any act prohibited by state or federal law in any jurisdiction, involving conspiracy or collusion with respect to proposing and/or bidding on any public contract, except as follows:

_____

I state that McClure Company (Name of Firm) understands and acknowledges that the above representations are material and important and will be relied upon by the Department of General Services in awarding the contract(s) for which this Quote is submitted. I understand, and my firm understands, that any misstatement in this affidavit is and shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this Quote.

_____
(Signature)

Shayne H. Homan
(Signatory's Printed Name)

Vice President
(Signatory's Title)

SWORN TO AND SUBSCRIBED
BEFORE ME THIS 8th DAY OF
January 20 20 .

_____
Notary Public 12-14-23

My Commission Expires

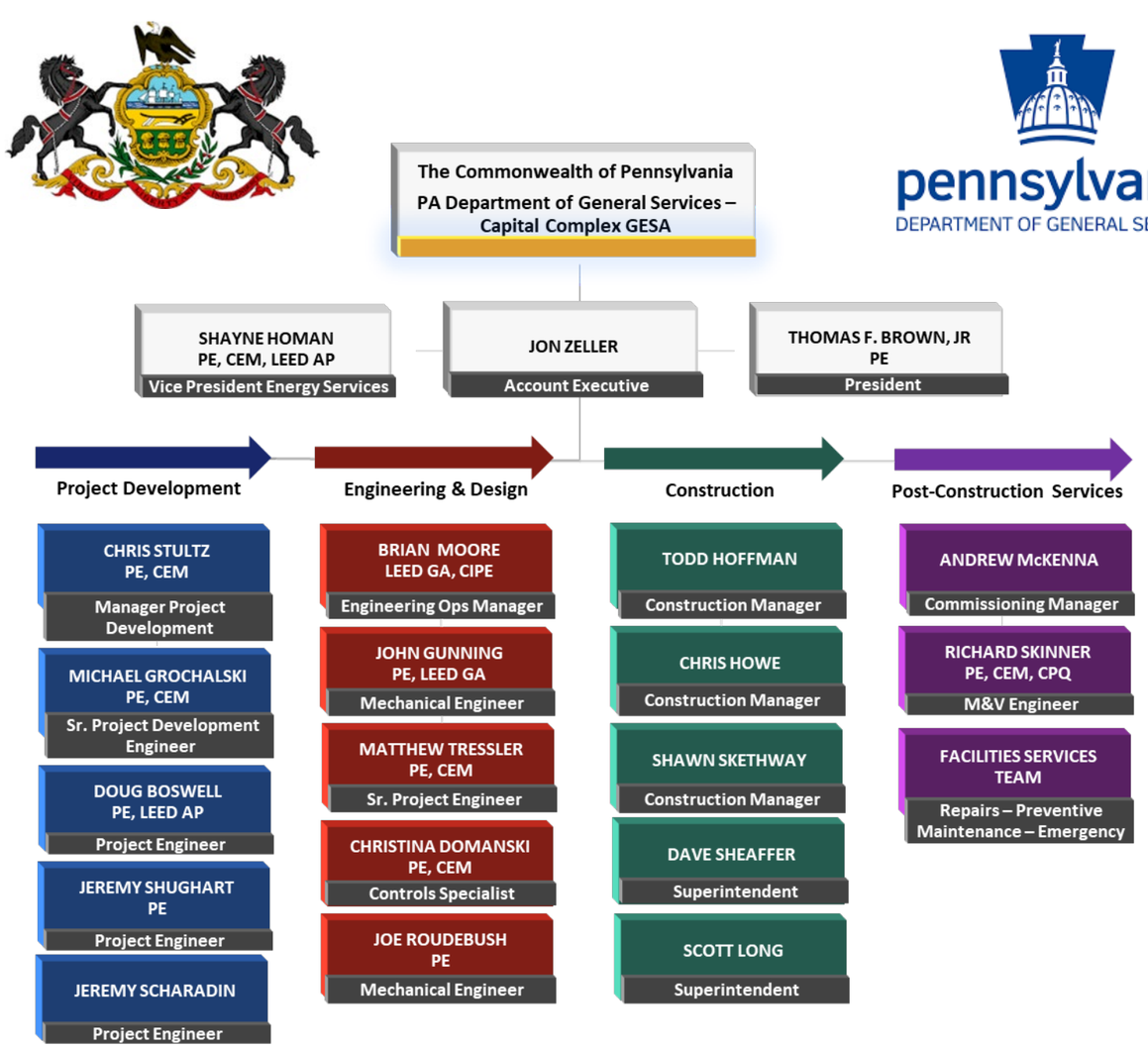
Commonwealth of Pennsylvania - Notary Seal
Roxann E. Maxwell, Notary Public
Dauphin County
My commission expires December 14, 2023
Commission number 1295207
Member, Pennsylvania Association of Notaries

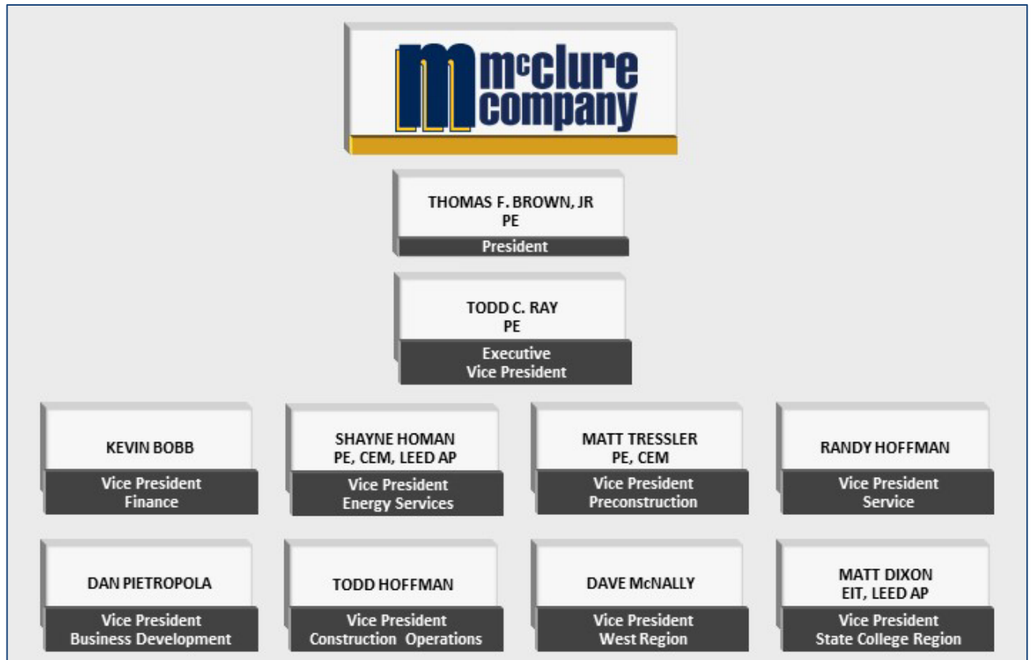
2-5.1 Project Management Team Overview

2-5.1 (A) Organization Chart

McClure Company (McClure) has extensive experience with Guaranteed Energy Savings Act (GESA) projects serving the Commonwealth. McClure will not substitute personnel identified or alter the structure without prior written authorization by DGS.

Figure 1 – Project Team Organization Chart





Subcontractors
- Pool of Potential SDB & VBE Partners -

Firm	Work Scope	Classification
Global Energy Services	Lighting, Building Envelope, & Water Conservation	SDB
Lighting Services Inc.	LED Lighting Upgrades	SDB
National Energy Solutions	LED Lighting Upgrades	VBE
LC Insultations	Mechanical Insulation	VBE
PA Pride Insulation	Mechanical Insulation	SDB
Air Management Technologies Inc.	Mechanical, Plumbing, HVAC	VBE
Zerodraft Central Pennsylvania	Building Envelope	SDB
Keystone Electrical Supply	Electrical Systems/Components Supply	VBE
Makdad Industrial Supply	Mechanical, HVAC Supply	SD VBE
H2O Applied Technologies	Water Conservation Measures	SDB
Nexgen Automation	Controls, Automation	SB

2-5.1 (B) Project Team Responsibilities, Interrelationship, and Management Structure

Presented within the table below is summary information on our "key personnel" committed to the DGS Capitol Complex GESA project; describing the assignment of responsibilities for major tasks, and the interrelationship and management structure of our team. This team has a strong work history serving with the Commonwealth and brings leading industry expertise and resources to deliver a successful DGS GESA program. McClure is PA's largest Design-Build ESCO headquartered in the State, and our experienced, local staff are ready to achieve all project goals and objectives to schedule.

Management Team Member	Project Responsibilities of Major Tasks – Key Staff	Interrelationship & Management Structure
Jon Zeller *Account Executive*	Jon is the primary point of contact for the Commonwealth of Pennsylvania during the development phase of this project through the signing of the GESA Contract. He will also remain involved throughout the construction/ implementation and post-construction phases of the project to ensure that open lines of communication are maintained between DGS and McClure Company at all times. Jon has over 18 years of PA GESA industry experience.	Direct point-of-contact. Conduit between the Commonwealth and McClure. Reports directly to the Vice President, Shayne Homan
Shayne Homan, P.E., LEED AP® *Vice President*	Having led multiple Commonwealth GESA projects, Shayne will ensure that the team has adequate resources to meet performance, financial, and scheduling goals. Shayne has over 19 years of PA GESA industry experience.	Directly Manages all Team Members throughout all GESA phases
Christopher Stultz, P.E., CEM *Project Development Manager*	Chris will manage the development team, performing utility analysis and energy audits to identify and qualify technical energy conservation measures (ECMs). Chris will design the ECMs, with focus on the performance savings, costs, and technical specifications. Chris has over 10 years of PA GESA industry experience, and has direct oversight over all ECM development, including all: mechanical, electrical, plumbing, solar/PV, fuel conversions, building envelop, roofing, and general construction.	Directly Manages all Project Development Team Members
Mike Grochalski, P.E., C.E.M *Sr. Project Development Engineer*	Reporting to Chris Stultz, Mike will utilize his 8+ years of energy engineering experience to develop ECMs related to Mechanical/ Electrical/Plumbing (MEP), HVAC, and alternative and renewable energy systems. His responsibilities include site audits, development, design, specification and layout of MEP, HVAC and related systems.	Reporting to the Project Development Manager (Chris Stultz)
Doug Boswell, P.E., LEED AP *Project Engineer*	Reporting to Chris Stultz, Doug will utilize his 10+ years of energy engineering experience to develop ECMs related to Mechanical/ Electrical/Plumbing (MEP), HVAC, and alternative and renewable energy systems. His responsibilities include site audits, development, design, specification and layout of MEP, HVAC and related systems.	Reporting to the Project Development Manager (Chris Stultz)
Jeremy Shughart, P.E. *Project Engineer*	Reporting to Chris Stultz, Jeremy will support the coordination of project subcontractors, scheduling, and job pre-construction planning from system start-up to final completion of the project. Jeremy has over 10 years of PA GESA experience that he will apply to the DGS GESA program.	Reporting to the Project Development Manager (Chris Stultz)
Brian Moore, *Engineering Manager*	Brian will utilize his 25+ years of Mechanical / Electrical / Plumbing (MEP) engineering experience and expertise to design all selected ECMs. He will oversee all the engineering activities associated with this project. Brian's responsibilities include design assistance, reviews & approvals, and equipment selections.	Directly Manages all Engineering Team Members, Aligning Efforts with Project Development Manager (Chris Stultz)
John Gunning, P.E., LEED GA *Project Development & Design Engineer*	John has over 14 years of experience providing engineering and technical expertise during project development. His areas of expertise include mechanical and HVAC systems, and his responsibilities include conducting detailed energy audits of mechanical systems, engineering end-use analysis and design review.	Reports to the Engineering Manager (Brian Moore)

Management Team Member	Project Responsibilities of Major Tasks – Key Staff	Interrelationship & Management Structure
Steve Geyer *Chief Estimator*	Steve has over 20 years of PA GESA industry experience and is responsible for the oversight of the bidding process from Estimator assignment to final bid proposal submission.	Reports to the Engineering Manager (Brian Moore)
Christina Domanski, P.E. *Bldg. Automation & Controls System Engineer*	Christina will oversee the building automation system design and sequencing of the selected energy conservation measures (ECMs). She also works closely with the Commissioning manager and M&V program reporting. Christina has over 15 years of PA GESA industry experience.	Reports to the Project Development Manager (Chris Stultz)
Shawn Skethway *Construction Manager*	Shawn is McClure Company's dedicated, full-time Project Construction Manager for the DGS GESA project, responsible for managing the day-to-day activities of the construction site; coordinating all vendors and trades towards the successful implementation of the defined work-scope. He is responsible for general construction of the project and will coordinate manpower to accommodate requirements during the construction phase. Shawn has managed multiple GESA and Design/Build projects throughout his career. He has over 25 years of experience as a Construction Manager and mechanical contractor.	Directly Manages all Construction Team Members and Subcontractors
Dave Sheaffer *Project Superintendent*	Dave is our committed, full-time Project Superintendent for the DGS GESA project. He will support the implementation process by assisting the Construction Manager (Shawn Skethway), providing additional site supervision and management of all subcontractors and construction activities. He will properly coordinate all work activities with DGS staff, utilizing pre-approved subcontractor partners, and administer the project's Safety Plan. Dave has over 9 years working in Construction Management	Reports to the Construction Manager (Shawn Skethway)
Richard Skinner, P.E. *M&V Manager*	Richard will manage the Measurement and Verification ECM savings and accurately record and analyze pre and post-retrofit energy use. Over the last five years, Richard has managed M&V programs & reporting for the DPW Selinsgrove Center and White Haven Center GESA projects. He has over 15 years of PA GESA industry experience.	Directly Manages all M&V and Post Construction Team Members
Andrew McKenna *Project Commissioning*	Andrew will coordinate the commissioning of the ECMs and accurately record results, analyze the entire process, and oversee all subcontractor commissioning collection. Andrew has over 15 years of PA GESA industry experience.	Reports to M&V Manager (Richard Skinner)

Subcontractor Selection

Due to the potential size, scale, and multiple locations of this project, and the diversity of utility-related improvement strategies, McClure Company has been actively seeking Small Diverse Business (SDBs) and Veterans Business Enterprise (VBE) partners that are currently verified under the PA DGS Bureau of Diversity, Inclusion & Small Business Opportunities (BDISBO), and that can work with us to provide additional value to the DGS Capitol Complex Guaranteed Energy Savings Act project and its various scopes-of-work. A listing of potential SDB and VBE subcontract partners that will work with McClure Company throughout each phase of the project can be found within our Organizational Chart presented under Section 2-5.1 (A) and Section 2-5.4.3. Note, the SDB and VBE subcontractors listed within our Organizational Chart do not represent a complete and final listing, rather a pool of verified, potential partners identified to date that McClure Company can include as part of a competitive pricing process utilized during the Investment Grade Audit (IGA) phase. If desired by DGS, McClure Company will competitively bid scopes-of-work associated with each Energy Conservation Measure (ECM) to various BDISBO verified SDB and VBE firms in each respective trade. This competitive vetting approach for all installation labor, material and technology typically results in lower overall project costs, or "Bid Savings", for our clients as each subcontractor competes for each project. At the discretion of the Commonwealth, any Bid Savings realized during the IGA phase will be: 1) applied back into the GESA project where McClure Company can address additional scope for DGS, or 2) accrue back to the Commonwealth as positive cashflow under "Net Annual Benefit" of the project's financial pro forma, thus improving the project's overall economic benefits.

McClure Company remains flexible regarding the selection of subcontract partners. Our open approach towards subcontractor selections maximizes participation opportunities for all verified Small Diverse Businesses and Veterans Business Enterprises and mobilizes a diverse workforce on all of our GESA projects. In addition, it warrants that the level of commitment McClure Company makes to SDB & VBE participation will be achieved, and that all project costs are properly vetted through a competitive process, thus ensuring best overall value for the Commonwealth and its taxpayers. We value the Commonwealth's feedback regarding our current pool of potential SDB and VBE subcontract partners. Any additional verified firms that could be identified would supplement our current listing and be included in our competitive vetting process.

2-5.1 (C1) Assignment of Responsibilities for Project Tasks

McClure has extensive experience developing and implementing customized GESA solutions throughout the Commonwealth. Much of this experience has been working at sites with multiple facilities featuring various usage groups, similar to those found throughout the Capitol Complex. A key component of our success providing PA GESA solutions and serving municipal clients is ensuring our team approaches each phase of the project with a clear assignment of responsibilities. As part of our internal Quality Control & Assurance (QA/QC) practices, McClure's in-house management team is organized with a built-in overlap of staff for each project task, thus ensuring that significant oversight is provided throughout each phase of the project and that each task is properly addressed in a timely and effective manner.

Project Tasks	Project Responsibilities	Individual Task Assignments													
		Jon Zeller	Shayne Homan	Chris Stultz	Mike Grochalski	Doug Boswell	Jeremy Shughart	Brian Moore	John Gunning	Steve Geyer	Christina Domanski	Todd Hoffman	Dave Sheaffer	Andrew McKenna	Richard Skinner
RFQ Phase	Prelim. Audit	■	■	■	■	■	■	■	■	■	■				
	Prelim. Energy Analysis	■	■	■	■	■	■	■						■	■
	Prelim. Cost Estimating	■		■	■	■	■	■		■					
	Prelim. Subctr. Selection	■		■	■	■	■		■			■	■		
	RFQ Assembly	■	■	■	■	■	■								
Investment Grade Audit Phase	Detailed Facility Audit	■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Detailed Energy Analysis	■	■	■	■	■	■							■	■
	Final Cost Estimating	■	■	■	■	■	■	■		■					
	Final Sub. Selection	■	■	■	■	■	■					■			
	Energy Audit Report	■	■	■	■	■	■								
	Contract Administration	■	■												
Pre-construction Phase	Engineering Design Phase							■	■						
	Equipment Procurement							■				■			
	Subcontractor Design Phase			■	■	■	■	■	■			■			
	Design Review & Permitting			■	■	■	■	■	■	■	■	■	■	■	■
	Coordination Meetings	■	■	■	■	■	■	■	■	■	■	■	■		
Construction Phase	Mobilization			■								■	■		
	Project Installation		■									■	■		
	Project Meetings	■	■	■	■	■	■					■	■		
	Project Safety Analysis		■									■	■	■	■
	Quality Control / QA Testing										■	■	■	■	■
Post-Construction	Punch list & Project Closeout		■									■	■	■	■
	Commissioning			■	■	■	■		■		■	■	■	■	■
	As-Built Drawings							■	■	■					
	Owner Training	■				■	■				■	■	■	■	■
	On-Going M&V	■	■								■			■	■

2-5.1 (C2) Key Personnel Time Percentage

The Table featured below presents the percentage of time that key McClure personnel will be assigned across the various phases of this GESA project.

Percentage (%) of Time Commitment to DGS GESA Project	Title / Project Role	Years of GESA Experience	IGA	Construction	Post-Construction
Jon Zeller	Account Executive	19	100%	50%	25%
Shayne Homan, P.E., LEED AP®	Vice President of Energy Services	20	50%	50%	25%
Christopher Stultz, P.E.	Project Development Manager	11	100%	30%	20%
Mike Grochalski, P.E., C.E.M	Sr. Project Development Engineer	9	100%	30%	20%
Doug Boswell, P.E., LEED AP	Project Development Engineer	11	100%	30%	20%
Jeremy Shughart, P.E.	Project Development Engineer	21	100%	40%	20%
Jeremy Scharadin	Mechanical Designer	6	100%	40%	20%
Christina Domanski, P.E., CEM	Building Automation System Eng.	13	100%	50%	40%
Brian Moore, P.E.	Engineering Manager.	26	100%	100%	15%
Matthew Tressler, P.E., CEM	Senior Engineer	20	100%	100%	15%
John Gunning, P.E., LEED GA	Project Development & Design	15	100%	100%	15%
Steve Geyer	Chief Estimator	39	100%	100%	15%
Shawn Skethway	Construction Manager	26	25%	100%	40%
Dave Sheaffer	Construction Superintendent	10	5%	100%	40%
Andrew McKenna	Project Commissioning Manager	16	5%	20%	100%
Richard Skinner, P.E.	M&V Program Manager	16	20%	20%	100%

2-5.1 (C3) Ability to Manage Construction, Repairs, Regular Service & Emergencies

Founded in 1953, McClure Company is a full-service integrated energy, engineering, and contracting firm with an in-house team of engineers, installers, and maintenance service technicians. From our seven (7) PA office locations, we currently employ over 100 industry professionals and more than 550 field service and construction craftspeople. Having developed and implemented customized GESA solutions or performed Design-Build MEP installations or maintenance services for hundreds of municipal and other State Agency type clients located throughout the Commonwealth, McClure has the right experience, expertise and local resources that DGS needs in its ESCO partner.

Our Construction Management team has demonstrated history working within PA and delivered more GESA solutions and design/build projects to more PA agency clients than any other competitor; bringing significant management expertise and capability to this GESA project. We are very accustomed to working within open, public facilities such as those managed and maintained by DGS. During Construction, McClure's Construction Management team will maintain open communication with DGS staff at all times and will properly coordinate all construction activities in accordance with the project's Safety Plan and any other DGS specified requirements. This experienced team is highly capable of managing all construction, repairs, regular service, or emergencies that may arise. The full resources of McClure Company will be available to streamline GESA program development and implementation; ensuring the delivery of a higher quality GESA solution to DGS.

As an existing service provider (Vendor #117-888) with a long-standing relationship with the Commonwealth, McClure's Service Department can provide direct 24/7 response to any repair, routine maintenance or emergency service needed by DGS throughout the contract term. The McClure Construction Management team will provide continual on-site project management and field supervision throughout construction.

2-5.1 (D) Commitment of Project Team

McClure Company commits that it shall not substitute personnel identified on the Project Management Team and shall not alter the structure of the Project Management Team organization chart without prior written authorization by the DGS.

2-5.2 Work Plan

An overview of McClure Company's technical plan towards implementing our proposed GESA solution is summarized under this section. Our proposed Base GESA program includes the further development and installation of twelve (12) of the Core Energy Conservation Measures (ECMs) defined by the RFQ and includes nine (9) additional measures. Furthermore, utilizing a limited level of Energy Related Costs Savings (ERCS), our Base Alternate program addresses all fifteen (15) Core ECMs and includes twelve (12) additional, innovative measures and flexible options for DGS's consideration that further enhance the program's overall economic, technical, and environmental benefits over the long-term.

NOTE: Our team of local, in-house P.E.'s and LEED certified engineers will further develop ECM designs in accordance to the PA DGS GESA Project Design Manual. McClure Company has substantial in-house engineering design capability and expertise. This ability enables McClure Company to more cost-effectively address engineering design requirements when compared to other ESCOs. Unlike competitors, we do NOT need to out-source these services to 3rd party firms, which requires the ESCO to then apply their added Overhead and Mark-Ups fees to the 3rd party design costs. Our approach towards design engineering results in significant cost-savings benefits for our clients, enabling us to address more capital improvements for DGS.

In addition, McClure design engineers are an integral part of our dedicated project team, and will remain involved throughout Development, Construction, and Post-Construction services, thus ensuring the success of this GESA project serving DGS and the Commonwealth.

A complete listing of our proposed Base GESA program ECMs, broken-out per DGS site, are presented within the table on the following page. For DGS's consideration, additional GESA program options (Base Alternate) are also possible and are further discussed under **Volume II: ECM/Cost Submission**. For proposal purposes, our Work Plan describes the steps necessary to successfully implement these Base ECMs, from GESA Contract execution through completion of construction, including commissioning and other post-construction services.

2-5.2 (1) Design Process

Having previously completed multiple GESA solutions serving the Commonwealth, McClure has a thorough understanding of the DGS design process and expectations. We are responsible for the entire process and understand that we are accountable for the results it produces. In accordance to Bulletin #2 and #1 (Rebid), there is no DGS Energy Consultant for this project. To ensure a more streamlined process, our team will maintain open lines of communications with DGS at all times throughout each phase of the project. Utilizing our in-house engineering design capability, we shall complete all ECMs designs in accordance to the DGS GESA Project Design Manual and DGS specifications. We shall follow these standards and proceed as follows:

1. **Initial Design Process Meeting:** Introduction and review of requirements, procedures and approval process with DGS.
2. **Re-Occurring Design Meetings:** Presentation and facilitation of design decisions and energy measures with DGS.
3. **Design Progress Meetings:** Strategic review with DGS of detailed design work, project schedule, and installation.
4. **Design Approval:** Obtain approval of all local, state, federal and other regulatory agencies with jurisdiction.
5. **Investment Grade Audit Report:** Submission of final design, costs, and savings of each measure.
6. **Final Project Acceptance:** Acceptance by the Commonwealth of the final project scope.

Upon execution of the GESA Contract, and issuance of the Notice to Proceed (NTP), McClure Company will finalize the detailed design of all Energy Conservation Measures (ECMs) comprising DGS's GESA project. All ECMs will be brought up to a 100% design level under this phase of the project. McClure Company will directly prepare the plans and specifications for all proposed Energy Conservation Measures (ECM), and those measures that are reviewed and accepted by the Commonwealth. We will work collaboratively with DGS throughout the entire process. Any feedback or comments from DGS will be addressed by our Design team and incorporated into each measure's final design. Together, we will review for approval all final plans and specifications.

Base GESA Program

Work Plan Scope-of-Work

ECM ID#	"Base" ECM Type (Core & Additional)	Energy Conservation Meaasure (ECM)	"Base" ECMs Presented by Site							
			Rachel Carson	Finance Building	Irvis Building (*aka* - South Office)	State Records Center	18th & Herr Complex (Including Shops)	Agriculturtal Building	Agricultural Vet Laboratory	22nd & Forester St, Office
1	Core	LED Lighting Upgrades	X	X	X	X	X	X	X	X
3	Core	Weatherization	X	X	X	X	X	X	X	X
4	Core	BMS Control Optimization	X	X	X	X	X	X	X	X
5	Core	Rachel Carson Temperature Master Diffuser Upgrades	X							
6	Core	Rachel Carson Pneumatic HVAC System Upgrades	X							
7	Core	Rachel Carson Steam Loop Removal	X							
8	Core	Rachel Carson Domestic Water Pump Replacements	X							
9	Core	Finance VFDs for HVAC Motors		X						
10	Core	Irvis Water Waster to DX/Water Coil			X					
11	Core	Records Center Summer Condensing Boiler Installation				X				
12	Core	18th and Herr Decentralized Heating System Installation					X			
14	Core	Agriculture Boiler Replacement						X		
17	Additional	Irvis FCU Controls			X					
19	Additional	22nd & Forster Convert Electric AHU to Hot Water								X
20	Additional	22nd & Forster VFDs for Fans								
21	Additional	Plumbing Improvements	X		X	X	X	X	X	X
22	Additional	Steam Trap Replacements		X	X					
23	Additional	Electrical Transformer Upgrades	X	X	X	X		X	X	
24	Additional	Boiler Controls				X			X	X
25	Additional	Rachel Carson Insulation Covers	X							
26	Additional	Rachel Carson Chiller Optimization	X							

Base GESA Program - Matrix Notes	
"Core"	An ECM defined by DGS under Appendix S or the RFQ
"Additional"	An ECM developed by McClure Company that enhances overall economic, technical, environmental benefits of the program
Core ECMs 2, 15 and 17 are included under McClure's Base Alternate GESA program	
Please see McClure's **Volume II: ECM/Cost Submission** for details relating to our Base Alternate GESA program option	

DGS Defined Core ECMs Drove Our Proposal Development *– Our local, Harrisburg-based team will openly and collaboratively work with PA DGS towards further tailoring the final scope-of-work implemented under this GESA program to the Commonwealth's needs and expectations.*

2-5.2 (2) Potential Design Issues

Presented below are some potential design issues related to this project. However, with over 60 years of design/build construction experience working within PA, we are confident that we can properly address and avoid these issues, and ensure that they do not adversely affect the DGS project.

Potential Issues	McClure's Proposed Solutions
Design Team Collaboration & Communication with DGS Site Managers	• Establish open communication with DGS, and all parties involved with ECM engineering design reviews and approvals. • McClure's expansive engineering team will resolve design related challenges, utilizing 360° peer reviews for immediate quality cost control review, open communication between the trades, and increased project understanding throughout the entire construction team.
Distributed Working at Multiple DGS Sites	• Identify and categorize facilities/sites with similar assets, structures, and needs to develop standardized applications and solutions. • Identify repeatable, modular solutions allowing for rapid development at each site.
Subcontractor Involvement and their Adherence to Schedule	• Construction insight from subcontractors and their specialized knowledge will be employed early on in addition to comprehensive safety / asbestos plans. • Teamwork and clear, continuous communication with all subcontract partners will prevail throughout the entire project life cycle.
Design of Facility Lighting and Sensors	• Glare and luminous efficacy shall be carefully considered, in addition to maximizing lumens per watt, while maintaining specified color temperatures. • Budget and integration into certain spaces are carefully considered and measured for lighting and occupancy sensors.
System Functionality and Simplicity	• Design of proper systems while integrating standard expectations of maintenance and operation to limit complicated equipment for local staff. • Utilize best available technologies properly applied to each site for highest level of intended operational success.

2-5.2 (3) Team Project Management and Execution

From Development through Construction and Post-Construction Services, McClure Company will professionally manage and execute this Project by maintaining open lines of communication with all DGS stakeholders. We recognize that open communication and proper coordination of all activities with all parties involved is an essential component to implementing successful GESA solutions, particularly when working at multiple sites. Our local Harrisburg headquarters and experience delivering similar work-scopes to other state agencies has made us uniquely qualified and skilled to serve as DGS's ESCO partner. We will work with all stakeholders to freely share information, coordinate project meetings where items can be fully addressed, and promptly respond to all issues and inquiries on a timely basis.

As presented under **Section 2-5.1 (A) Organization Chart**, our team is organized with an overlap of key staff for various project tasks and responsibilities, providing redundant oversight by McClure professionals for each project phase. This Quality Control/Quality Assurance (QA/QC) type approach towards Project Management ensures that each facet of the project is properly overseen and addressed to the highest standard. To ensure project execution is successfully implemented, McClure Company has dedicated a full-time Construction Manager and Superintendent to the Capitol Complex GESA project. They will lead our implementation efforts during the project's Construction phase and will have the full support and resources of McClure Company available to them at all times. They will be a constant presence during project construction and execution, managing all construction activities, and properly coordinating all subcontractors, installations, and equipment/material deliveries with DGS prior to commencing any work. Safety and Security of all individuals are a priority for our Construction Management team, and they will administer our Safety Plan, which will be customized specifically for each site within the Capitol Complex GESA project. An important part of our coordination meetings involves planning and incorporating safety into each upcoming task and project, helping to avoid injuries and ensure safe & secure working environments. This team will be readily available to DGS throughout the entire process and will work to identify and address risk factors associated with each scope of work.

McClure Technology Utilized to Enhance Management and Execution of the Project	
Schedule	Update MS Project schedule regularly to track critical activities, deliveries, and installations.
PM Software	In-house customized project management software for safety, purchasing, fabrication, QA/QC. Includes submittal management program that can collaborate with associated vendors, engineers, subs and clients.
Modeling	3D design capabilities when applicable for trade coordination, clash detection, reduced rework, quality of design and install. Coordinated drawings converted to fabrication drawings for in-house fabrication.
Subcontractors	Maintaining a reliable subcontractor base, including SDB & VBEs, for any scope outside self-perform MEP.
Field Technology	Onsite technology to document progress, safety reports, access project information, communicate field conditions, and provide as-built drawings. McClure utilizes a data vault while in the field, which allows the foreman to have an information hub where access to the most current drawings are readily available, and informed decisions can be made quickly. Plangrid software and other construction management programs are also utilized when needed, such as Raken, Submittal exchange, Proforma, Newforma, Project Site & Procore.

Working closely with the local DGS staff, McClure Company's construction manager and field superintendent will coordinate all project tasks and installations. Ultimately, the construction manager will be responsible for the successful and timely completion of the project. Some of the key tasks addressed by McClure's construction manager include:

- Execute the project by fulfilling all contract obligations, policies, and procedures.
- Facilitate and realize DGS and other major project stakeholder's project goals, objectives, needs and requirements.
- Properly coordinate and manage all project meetings; taking and sharing detailed meeting minutes with all involved parties, ensuring all stakeholders have an understanding of the project's status and planned activities.
- Monitor and ensure all Quality Control-Quality Assurance (QA/QC) protocols are being followed and met, and that the Safety Plan is implemented effectively.
- Supervise daily labor and safety of all employees, subcontractors, installers, and field personnel…safely and responsibly complete daily tasks within public facilities.
- Manage subcontractor security clearances, Lockout/Tagout (LOTO) safety procedures, labor and tool safety checks.
- Ensure major equipment and materials are ordered on time, arrive on site are stored, and are installed correctly, securely.
- Follow the project schedule closely to ensure major milestones are met.
- Lead construction meetings by reviewing schedule, construction challenges, safety protocols, and opportunities.
- Identify and rectify any project-related deficiencies or risks to the Commonwealth.

2-5.2 (4) Construction Packages, Long Lead Items and Phases

Based upon our proposed Base GESA program, McClure has identified early construction packages, long lead items and the phases of construction utilizing internal standards and industry best practices. Each of these items are addressed below:

Construction Packages

In response to this RFQ, McClure Company conducted significant research and due diligence towards preparing detailed Construction packages for this project, which are assembled and estimated utilizing multiple local manufacturers and vendors. Our efforts have resulted in being able to provide the Commonwealth with accurate pricing and construction planning for each ECM. During the design phase, construction packages will be reassessed and estimated. Preliminary construction packages already identified include:

1. Lighting and materials
2. Heating, including boilers, A/C units, associated equipment & materials
3. Piping Distribution material, pumps, VFDs
4. Building Envelope
5. Controls and associated systems components

Long Lead Items:

Lead times for project related equipment, materials and technology have also been assessed, especially for larger HVAC equipment and accessories, and these durations have been factored into McClure's preliminary construction schedules. McClure Company will regularly check in with equipment and material vendors, suppliers and manufacturers during the IGA phase and commencement of the Construction phase to ensure lead times are accurate and on schedule. During the design phase, lead times and schedules will be reassessed and properly coordinated with DGS. Preliminary lead times already identified include: *Distributed Heating Equipment (4-6 Weeks) /Central Heating Equipment (6-8 Weeks) / Lighting Equipment (6-8 Weeks)*

Phases of Construction:

Upon acceptance of the IGA report by the Commonwealth, and our receipt of the Notice to Proceed from DGS, McClure Company will move into the Construction Phase of the project. As presented under **Section 2-5.1 (C1): Assignment of Responsibilities for Project Tasks**, and within the table on the following page, McClure approaches Construction through two distinct phases: 1) the Pre-Construction Phase, which addresses ECM design, equipment & subcontractor procurements, reviews, and coordination meetings, and 2) the Construction phase that implements the scope-of-work associated with each ECM. Following all construction activities, McClure's Post-Construction Services would then commence, which involves commissioning, training of DGS staff, M&V, delivery of As-Built drawings, and other agreed to services.

Pre-Construction Phase	Engineering Design Phase
	Equipment Procurement
	Subcontractor Design Phase
	Design Review & Permitting
	Coordination Meetings
Construction Phase	Mobilization
	Project Installation
	Project Meetings
	Project Safety Analysis
	Quality Control / QA Testing

Phasing of the project is an early focus of McClure Company. Depending on the final scope agreed upon, McClure Company may need to phase HVAC related scopes of the project to minimize disruption of the facility during heating and cooling seasons. McClure Company has created a preliminary phasing plan as outlined below:

- Phase 1 – Select Office/Site Lighting, Fuel/HVAC Conversions and Controls, and Building Envelope: Summer 2021
- Phase 2 – Select Office/Site Lighting, HVAC (Heating Systems): Summer/Fall 2021
- Phase 3 – Select Office/Site Lighting, Controls, and HVAC upgrades (Cooling Systems): Fall/Winter 2021/2021

2-5.2 (5) Critical Material and Equipment

McClure Company understands the importance of having critical material and equipment ready and available at the project site during construction, the timing/lead-time associated with acquisition and delivery, and how to professionally manage the entire process to ensure streamlined, timely deliveries. Presented below is a comprehensive listing of critical pieces of equipment and material associated with each Base GESA program ECM and the projected lead-time to acquire and deliver each to the DGS job site. As PA's largest design/build mechanical contractor and ESCO, McClure Company will leverage its market position and purchasing power with manufacturers to control costs and ensure all material, equipment and technology are delivered on time to DGS sites for construction efforts. All new material and equipment will have a demonstrated history of successful operation serving similar type facilities and environments. New equipment and technology, such as lighting, water fixture or toilet stocks, will be standardized for DGS so new systems can more cost-effectively and efficiently be maintained by staff over the long-term. Upon delivery, all new material and equipment will be secured in designated, pre-coordinated delivery areas approved by DGS, and prepared for scheduled installation.

ECM #	Proposed Base GESA Program Core ECMs and Work Plan	Critical Equipment / Material Per ECM	Projected Lead Time
1	LED Lighting Upgrades	Fixtures, lamps	6-8 Weeks
3	Weatherization	Sealants, weather-stripping, caulking, insulation	4-8 Weeks
4	BMS Control Optimization	Controllers, sensors, thermostats	4-6 Weeks
5	Rachel Carson Temperature Master Diffuser Upgrades	Diffusers, controllers	4-8 Weeks
6	Rachel Carson Pneumatic HVAC System Upgrades	Controls, thermostats, wiring,	4-6 Weeks
7	Rachel Carson Steam Loop Removal	Boilers, traps, piping, valves / connectors	4-6 Weeks
8	Rachel Carson Domestic Water Pump Replacements	Pumps	6-8 Weeks
9	Finance VFDs for HVAC Motors	VFDs	4-6 Weeks
10	Irvis Water Waster to DX/Water Coil	Dx Unit, piping, valves / connectors	4-6 Weeks
11	Records Center Summer Condensing Boiler Installation	Boiler piping, valves / connectors	4-6 Weeks
12	18th and Herr Decentralized Heating System Installation	Piping, valves, connectors	6-8 Weeks
14	Agriculture Boiler Replacement	Boilers, piping, valves, connectors	6-8 Weeks
17	Irvis FCU Controls	Controllers	8-10 Weeks
19	22nd & Forster Convert Electric AHU to Hot Water	Piping, valves, connectors	6-8 Weeks
20	22nd & Forster VFDs for Fans	VFDs	8-10 Weeks
21	Plumbing Improvements	Fixtures, valves	4-6 Weeks
22	Steam Trap Replacements	Steam traps	4-6 Weeks
23	Electrical Transformer Upgrades	Transformers, connectors	4-8 Weeks
24	Boiler Controls	Controllers	4-6 Weeks
25	Rachel Carson Insulation Covers	Connectors	4-6 Weeks

ECM #	Proposed Base GESA Program Core ECMs and Work Plan	Critical Equipment / Material Per ECM	Projected Lead Time
26	Rachel Carson Chiller Optimization	Covers	4-6 Weeks

Understanding critical material and equipment, and why they are critical, is paramount to any successful construction project. For the DGS Capitol Complex GESA project, the most critical scope items are associated with heating & HVAC equipment, control strategies, and fuel conversions (ECMs 4, 6, 7, 11, 12, 14). Lighting and building envelope measures have the quickest and highest energy savings, therefore, implementing these solutions expeditiously is important.

2-5.2 (6) Construction Challenges and Proposed Solutions

The fundamental challenge of implementing the defined GESA program, and its associated ECMs, within distributed facilities and work locations is ensuring proper coordination amongst all parties and that work does not interfere with DGS or State agency operations. Aligning construction schedules with DGS staff, daily operations, all installing subcontractors, and product & material deliveries is of critical importance. Construction of each ECM consists of implementing a diverse project scope throughout multiple properties over a wide area, which in many cases, will need to occur in parallel with each other, before the start of the next heating or cooling season. McClure has the local, PA-based Construction Management resources and expertise to dedicate to a GESA project of this magnitude and overcome all of these challenges while achieving defined project milestones to schedule. Maintaining open lines of communication with all involved parties is essential. If work is not properly coordinated or communicated with DGS staff, installation time can be wasted, or product and material deliveries could be missed and remain unsecured, all of which will adversely impact and slow the project down. To mitigate this fundamental challenge, McClure Company has dedicated a local, Harrisburg-based Construction Management team having extensive experience working with PA municipal clients throughout the State, and which have a deep understanding of logistical and operational procedures needed to deliver a successful GESA program to DGS.

Based upon industry "best practices", McClure will professionally manage all construction efforts when working within DGS facilities and public environments. This includes developing and implementing the project's Safety Plan, obtaining all necessary security clearances for McClure personnel and subcontractors, instituting Lockout/Tagout (LOTO) safety procedures, and conducting daily labor and tool safety checks. We will develop a workable schedule that successfully achieves all project milestones to an agreed upon schedule while adhering to all DGS safety policies and security protocols. Other challenges typically experienced during construction, and some proposed remedies are presented with the table below.

Construction Challenges	McClure Proposed Solutions
Holistic Upgrades Across Multiple Site Locations for Large Area Sites	• Identify and categorize sites with similar assets, structures, and needs to develop solutions and planning. • Identify durations of/and schedule any required systems shutdowns with DGS staff to ensure proper protocols are taken and critical spaces are addressed. • Identify repeatable, modular solutions allowing for rapid deployment across similar categorized facilities.
Construction and Material Storage in Public Facilities During Occupancy	• Schedule routine construction meetings with DGS staff. Communicate and coordinate with all stakeholders to safely and securely complete work and store materials in occupied areas of the facilities. • Better understand each facility's operation procedures in order to develop an accurate schedule and implementation plan. • Temporarily relocate staff as needed for work (lighting/electrical, plumbing/restrooms, etc.) being completed within work areas. • Define and coordinate appropriate site layout and laydown areas that will provide project contractors the space needed to unload trucks prior to the materials going into a building.
Hazardous / Asbestos Materials	• Utilize prior identification and removal experience of Asbestos and Hazardous material to safely and securely remediate affected materials. • Coordinate all testing and sampling with the state's environmental consultant and budget the costs of testing / sampling into project cost.
Shut-Down Impact on Working Environments	• Through proper scheduling and work coordination with DGS staff, identify specific work scope needing to be installed during shut down periods. • Safely plan any work required during shutdowns with considerations for weather and site conditions impacts. • Identify contingency plans of action for work not able to be completed due to environmental impacts and delays.

2-5.2 (7) Construction Plan

Since GESA's 1996 inception, McClure has successfully implemented over 200 GESA solutions throughout the Commonwealth utilizing our PA-based Construction Management expertise and resources. Our local team will provide fulltime, on-site construction management services throughout the entire Construction phase of the project. These services include all: permitting, procurement and delivery of equipment and materials to each job site, administering the project's Quality Control/Assurance (QA/QC) program and Safety Plan, supervising all project subcontract partners and installations, systems start-ups, commissioning, coordinating L&I inspections, close-outs and acceptance, and conducting post-construction O&M training for DGS staff. If ever needed, McClure's project-dedicated Construction Manager and Superintendent will have the full resources of McClure Company available for implementation efforts, including additional support staff from our 650-member team working from our seven (7) PA offices. Considering DGS's facilities being in close proximity to McClure's Harrisburg headquarters, McClure anticipates providing full-time Construction Management from our local office, which helps control overall project costs while enabling McClure to provide more effective management and oversight of daily construction activities. From our Harrisburg office, our team will organize appropriate site layout and laydown areas where materials/equipment can be safely and securely delivered and unloaded, direct unused vehicles to designated parking areas, and directly coordinate daily construction operations with DGS staff. McClure's Construction Managers will closely manage subcontractor access through DGS areas, administer Lockout/Tagout (LOTO) safety procedures, conduct labor and tool safety checks, ensure clean-up is fully performed and that all waste materials are properly removed and disposed by the end of each workday.

2-5.2 (8) Construction Coordination and Meetings

All construction will be properly coordinated with DGS staff prior to the start of any work. McClure Construction Manager (Shawn Skethway) will lead this effort, which is designed to minimize any negative impact on DGS facilities, staff, visitors, or operations. This will be accomplished successfully by McClure maintaining open line of communication and holding weekly construction meetings on-site with representatives of DGS, subcontractors, and McClure's Construction Manager, Superintendent, and other supporting team members. These meetings will clearly define all work activities currently being undertaken and for the future work week, status of schedule, and provide a look-ahead schedule outlining construction for the next 4 weeks. McClure will keep and track detailed meeting minutes of each meeting, and share with all subcontractors, DGS staff, and other stakeholders. These notes will capture all topics discussed during the meeting, track progress made towards resolution items, identify milestones achieved, goals for the week, and serve to keep all parties informed and aware of all construction activities currently being undertaken on site. The project's schedule and Safety Plan will be reviewed with attendees, and any outstanding QA/QC items will be identified and addressed. All work will be properly coordinated during these meetings, and will include an open dialogue to discuss strategies that can better streamline construction efforts, schedules, arrangement of subcontractor escorts, or to address any project related issues. Other critical topics discussed at weekly scheduled construction meetings include:

Topic	Detailed Discussion
Operations and Project Schedule	• All project operations will be communicated and coordinated with DGS staff, including work hours, weekly meetings, critical work, site layout, and other construction-related activities. • Project Schedule will be pre-planned and revisited, per phase, to ensure proper coordination.
Logistics	• Logistics will be based upon phase and work areas to ensure maximum productivity of installation teams. • Phasing will be based upon the final energy conservation measures selected and site categorization.
HVAC & EMS Systems Improvements, and Fuel Conversions	• Mechanical systems upgrades, fuel conversions, optimization controller hardware, and building automation implementation schedules will be closely coordinated. • Coordinate any needed systems shutdowns; Heating and Cooling systems retrofits implemented in system's off-season. • Energy Management System (EMS) control point and integration testing, cut-over testing, system optimization and 30-day monitoring will occur prior to project closeout to ensure the new EMS software is working effectively and efficiently.
Public, Occupied Environments	• Temporary measures, including power, temperature and air movement, will be agreed upon to ensure minimal disruption in fully occupied environments. • Temporary staff relocations while work is being completed within a given work area; i.e. lighting/electrical, plumbing/rest-rooms, etc. • Review of the facilities security and safety policies / procedures will occur for all project staff.

2-5.2 (9) Project Safety Plan, Management and Monitoring

A ***Safety Plan*** will be developed during the GESA IGA phase, designed to ensure health and safety for all building occupants and workers. We are committed to achieving 100% compliance to all established health and safety plan standards, policies and protocols. This plan will be applied to all subcontract partners working at DGS locations and will be reviewed weekly with them and DGS staff during construction meetings held at each respective site. McClure's safety management policy will assign and hold employees accountable for safe work practices. Safety audits will occur periodically to ensure compliance with OSHA, State, and DGS safety guidelines and McClure safety policies.

Management of the project's Safety Pan will be administered by our on-site Superintendent (Dave Sheaffer) with oversight by the project dedicated Construction Manager (Shawn Skethway). This will be accomplished through weekly tool box training and site-specific safety notifications and discussions, based upon phase and the working environment. We have a full-time Safety Director, Tom Scott, who has overseen our safety program, resulting in a companywide EMR of 0.668. Mr. Scott will also remain involved, providing administrative oversight of the Plan throughout each phase of the project.

Safety monitoring of energy use will be provided by our on-site Superintendent and company Safety Director, Tom Scott. Daily walkthroughs to document, investigate and train personnel on proper safety guidelines will occur. Lockout procedures, fall protection procedures, confined spaces training and abatement for hazardous materials will be closely monitored.

2-5.2 (10) Quality Assurance/Quality Control (QA/QC) Plan

McClure Company has an effective Quality Assurance/Quality Control (QA/QC) plan for procurement and construction and is driven to ensure that all work is safely implemented to DGS standards and satisfaction. This plan will be administered by McClure's Construction Manager throughout the project's construction phase, and includes:

- ***QA/QC Procurement Plan:*** Review, approve and submit construction submittals to all team members; Create special approval methodologies to ensure a streamlined approach; Facilitate an adequate review timeline, approval process, and delivery mechanism for submittal materials; Inspect all new equipment and material for quality, proper functionality/performance, and compliance with established specifications.
- ***QA/QC Construction / Final inspection Plan:*** Ensure work is performed in compliance with contract requirements, code, recommendations and construction industry standards; Implement training plan and program for DGS personnel; Manage and coordinate all QC activities and documentation; ensure proper document control; hold weekly job meetings; Institute a Phased Inspection plan with major stakeholders; Conduct systems start-ups and commissioning with DGS staff, DGS, Energy Consultant, and installing subcontractor partners.

2-5.2 (11) Project Closeout Plan

McClure has a demonstrated understanding of the close-out process for training of DGS personnel, manuals, occupancy permits, commissioning and final close-out, as shown below. These items will be expanded upon during the IGA phase.

- ***Training:*** Train and repurpose the current staff to properly operate, utilize, monitor, and maintain the installed systems. This is a critical component of the GESA program as it ensures the persistence of guaranteed savings over the long-term. McClure will customize its training program for DGS's identified staff based upon all newly installed equipment, systems and technology. This program will commence during the Commissioning process, which includes participation by DGS staff, and continue with scheduled training sessions over the contract term. Training sessions will be coordinated and held in a classroom setting at DGS locations, and will include a review of O&M manuals from the Original Equipment Manufacturer (OEM) and as-built drawings. Videotape of the training sessions will also be provided for future training use by DGS. Upon completion of each training session, Certificates will be issued to DGS staff demonstrating their understanding of the proper operation, maintenance, and monitoring of the newly installed systems. Re-training of DGS staff will be provided as needed or requested over the contract term.
- ***Manuals:*** By combining new & existing O&M documentation, a master operation & maintenance manual will be created for DGS staff.
- ***Occupancy Permits:*** McClure will facilitate all code required inspections for legal compliance.
- ***Commissioning:*** McClure will develop, optimize, and implement a commissioning plan by ECM. This process will focus and ensure system functionality, optimization, longevity, reliability and efficiency. Staff from McClure, DGS, and subcontract partners will participate in the Commissioning process. This is an integral part of the commencement of the commencement of the Training program.
- ***Final Close Out:*** All warranty information and undocumented changes post-design will be recorded and delivered to DGS at project closeout.

2-5.3 RFQ Project Schedule

McClure Company has extensive experience developing and building tailored GESA solutions for Commonwealth Agency clients, and has the demonstrated capability to successfully deliver complex, comprehensive project scopes while achieving all project milestones to the defined schedule and limiting any impact on day-to-day operations. Similarly, McClure Company will efficiently and cost-effectively execute our proposed GESA solution for DGS to the agreed upon schedule while maintaining open lines of communication with DGS staff at all time and in full compliance with the project's Safety Plan.

> "Having worked with McClure Company through the past year and a half, I can honestly say that this is the best company that I have ever worked with in my career. Its work was the highest quality, the men were the most skilled, and the supervisory persons were the most cooperative and organized had ever seen"
>
> **Steven W. DeSalva, P.E.**
> *Former, Director of Public Works*
> *County of Northampton, PA*

Some examples of our ability to develop and implement complex GESA solutions serving State Agency and other municipal-type clients are described below. These narrative descriptions were selected from McClure's portfolio of GESA projects that demonstrate our GESA project experience, capabilities, and expertise working with various technologies within different facility types and environments. In addition, a comprehensive listing of our GESA projects implemented to schedule is also included under **Section 2-5.4.2 (a): Firm's Experience on GESA Projects**. Note, like all of our other completed GESA projects, each of these projects serving municipal clients are within Pennsylvania; demonstrating our local capability, expertise and resources that we can commit to the Capitol Complex GESA project to ensure success. These projects utilized guaranteed energy saving dollars in combination with earned energy rebates/incentives and available grant money to fund project implementation. Some projects also included "Energy Related Cost Savings" and capital dollar contributions from the Client to supplement energy savings so to further address the client's capital master planning objectives and desired scope.

PA Department of Conservation & Natural Resources (DCNR) – Central Region: Currently nearing the end of the IGA phase, this project will make energy efficient capital improvements to over 1,500 DCNR facilities distributed throughout the Commonwealth amongst 64 different State Parks and 16 Forest Districts; having 94 separate addresses. Some of the key improvements being addressed for DCNR under this project will include:

- LED lighting system upgrades (interior & exterior), including IDA approved "Dark Sky" lighting strategies that minimize glare while reducing light trespass and skyglow.
- Upgrading HVAC and associated mechanical, electrical and plumbing (MEP) systems.
- Building envelope improvements, such as new roofs, windows, and other air infiltration reduction measures.
- Domestic Hot Water (DHW) upgrades and other Water Conservation Measure improvements.
- Waste-Water Treatment Plant improvements.
- Enhancing automated control capabilities.
- Solar PV installations and improvements to existing geothermal HVAC systems.
- Fuel Conversions, and many other customized measures that enhance efficiency, improve comfort, and reduce operating costs over the long-term.

Note: The DCNR "Central Region" GESA program consisted of serving over 1,500 facilities, totaling over 2,138,222 square feet of space, distributed throughout the Commonwealth. The Construction phase is anticipated to start in the Spring 2020 and take ap.proximately 12-14 months. This GESA program will not impact our ability to serve as DGS's ESCO partner for the Capitol Complex GESA program.

We will apply our proven, "Lessons Learned" experience and operational processes gained through serving DCNR and other agency clients while utilizing our Harrisburg-based resources and capabilities to ensure the Capitol Complex GESA program is a success for DGS.

Selinsgrove Center, Selinsgrove, PA (PA Department of Public Welfare): In 2011, McClure Company developed and implemented a customized GESA solution for PA DPW Selinsgrove Center. This project consisted of work within 47 buildings totaling over 980,000 Square Feet. McClure implemented 35 ECMs that included: Campus Wide Lighting Upgrades, Campus Wide Steam Trap Replacement, Building Automation System Replacement, Gas Fired Steam Boiler Installation, Steam Turbine Installation, 315,000 SF Roof Replacement, a 1,300 Ton Cooling System Installation, Coal Boiler Automatic Controls, (2) 1 Megawatt Emergency Generator Installation, New building construction for generators,

turbine and gas boiler, Solar Thermal Pool Heating System, Automatic Pool Cover, Insulation Upgrades, Variable Speed Pumps, and Variable Speed Fans. Total project installation cost was $11,903,563. All construction milestones and ECM installations were implemented to schedule and DPW expectations. Post-construction Measurement and Verification (M&V) services conducted on the project's guaranteed savings have proven to exceed the contractual guarantee by approximately $446,000. Currently, McClure and PA DGS are coordinating for a Phase II GESA project that will address additional lighting conversions to LED, lighting controls, Energy Management System upgrades, high-efficiency duel fired Oil/Gas burner conversions, weatherization and building envelop improvements, and water conservation measures.

White Haven Center, White Haven, PA (PA Department of Public Welfare): In 2012, McClure Company developed and implemented a customized GESA solution for PA DPW's White Haven Center. This project consisted of work within eighteen (18) distributed buildings located on 184 acres, comprising over 590,000 square feet. ECM improvements developed and built by McClure included: Campus Wide Lighting Upgrades, Campus Wide Steam Trap Replacement, Campus Wide Underground Steam Line Replacement, Building Automation System Installation, Coal Boiler Automatic Controls, New Building Construction for Summer Coal Boiler, Solar Thermal Pool Heating System, Insulation Upgrades, and Variable Speed Pumps and Fans. Total project installation cost was $8,494,911, and generates $660,909 in annual savings, including $122,945 in Equipment and Maintenance type savings. All construction milestones and ECM installations were implemented to schedule and DPW expectations.

Lackawanna County: McClure Company developed and implemented a customized GESA solution for Lackawanna County, PA. This project focused on implementing Energy Conservation Measure (ECM) improvements to facilities located throughout the County. These ECMs included: County Wide Lighting Upgrades, County Wide Building Envelope Upgrades, Combine Heat and Power / Emergency Generator, Kitchen Hood Controls / Refrigeration Upgrades, Plumbing Upgrades, Steam and Hot Water Conversion, and Courthouse Re-Commissioning. Total project cost was $7,476,933, and generates $705,070 in annual savings for the County. All construction milestones and ECM installations were implemented to schedule and County expectations

York County Government: McClure Company worked with the County to develop and implement a three-phase GESA program, which focused capital improvements to facilities located throughout the County. ECMs implemented by McClure Company included: County Wide Lighting Upgrades, HVAC System improvements/installations, Boiler and Chiller Replacements, Prison Automatic Shower and Hand Sink Controls, Plumbing Fixture Replacements, Prison Building Envelope and Laundry System Upgrades, a new Building Automation System, and Courthouse HVAC System Re-Commissioning. Each phase was properly coordinated with County operations, and implemented to schedule. Total Project cost was $9,539,807 over the three (3) phases, generating $1,204,177 in annual savings.

Centre County Government: Over the Summer (2018), McClure Company implemented the following ECMs for Centre County, PA: County-Wide LED Lighting Upgrades, Building Envelope Upgrades, Courthouse HVAC & Controls Upgrades, Cooling Tower Replacement, DWH & Kitchen RTU Replacement, County Office MUA Unit & Fluid Cooler Upgrades, County Office Boiler Plant & Controls Upgrade, Sheriff's Office Heating & Controls Upgrade, Sheriff's Office Roof Replacement, Sheriff's Office Window Replacements, and Sheriff's Office Interior Repairs. This GESA program had a total installation cost of $5,425,347, and generates $506,057 in annual savings.

Please see **Section 2-5.4.2 (a) Firm's Experience on GESA Projects** for additional case study information and examples of McClure Company achieve GESA project milestones and tasks to schedule.

2-5.3 (1) Project Schedule Narrative

McClure Company has identified critical aspects of the schedule, including the associated risks, and how our team's process will ensure achievement of critical milestone dates. Presented below is a narrative of our project schedule, which discusses the challenges of the schedule and proposed solutions. McClure will define project milestones and complete the project with minimal or no disruption to DGS's daily operations. Our Project Manager will assume direct responsibility of coordinating the Project Schedule with all stakeholders, and track and manage the critical path milestones. Within 30 days of the contract start date, McClure will complete an updated Critical Path Method (CPM) Schedule of the forecasted construction progress schedule, providing DGS with a look-ahead timetable of next steps.

Critical aspects of the schedule have been identified and will be carefully planned, executed and expedited to ensure the project schedule stays on track. The critical activities (with target start dates) include:

1. **Target: 07/10/20 – Review and Notice of Award:** Evaluation of Proposals and Notice of Award within 30 calendar days of conducting proposal interview.
2. **Target: 07/15/20-09/15/20 – Investment Grade Audit (IGA):** The final audit report will be submitted within 60 calendar days upon a Notice of Award. As part of this IGA report, McClure will perform detailed engineering, on site equipment testing, live metering and hard cost estimating to include energy baseline data; define and finalize the measurement and verification plan, Safety Plan, QA/QC Plan, Construction Plan, financing, detailed descriptions of each ECM, commissioning plan and the contract.
3. **Target: 11/16/20 – Contract Execution / Procurement:** Review and approval of IGA report, execution of GESA contract and award of GESA within 60 calendar days of IGA report submission.
4. **Target: 11/18/20-01/20/21 – Engineering & Major Equipment Procurement:** Upon DGS Notice to Proceed, final mechanical, electrical and building engineering as well as project permits and coordination with utilities will be completed. McClure will also prepare and submit equipment submittals for review. Coordination with utilities, and procurement of long-lead time equipment, subcontractors, equipment and material suppliers will be completed.
5. **Target: 11/18/20 – Pre-Construction:** At a pre-construction and orientation meeting with DGS and subcontract partners, we will review the entire scope-of-work, general conditions, work sequences, early startup requirements, Safety Plan, QA/QC Plan, and commissioning requirements to develop a baseline work-flow.
6. **Target: 11/18/20 – Critical Path Coordination:** Long lead equipment, coordination with utilities, subcontractors, equipment suppliers and DGS facility personnel.
    a. *Completion of Investment Grade Audit Report* **Target: 09/15/20**
    b. *DGS Review/Contract Procurement* **Target: 11/16/20**
    c. *Completion of Engineering* **Target: 01/20/21**
    d. *Pre-Construction Activities & Major Equipment Procurement* **Target: 11/18/20**
    e. *As-Built and O&M documentation* **Target: 30 days following substantial project completion**
7. **Construction Milestones / Fixed Dates Set:** With the understanding that no activity, aside from design/procurement shall exceed 30 days, the following milestones are established with the project schedule: Start date, substantial completion, daily hours, commencement tasks, subcontractor awards, engineering, procurement of major material, site approvals, permits, site mobilization and preparation, electrical shutdown, site and installation work, inspections, testing, training and commissioning. Although shown as one continuous activity, construction is the combination of different activities with many tasks being completed in parallel with each other in order to complete all recommended core ECM's to the established schedule. Each ECM's duration varies based upon scope and complexity; however, specific project implementation timelines will be reviewed and finalized with DGS.
8. **Irregular Circumstances:** As atypical conditions arise, the Project Manager will determine task priorities and make adjustments while communicating with all stakeholders. The start-finish relationships for each task are adjusted accordingly to meet specific deadlines.
9. **Weekly Construction and Safety Meetings Established:** Consistent, open communication with all stakeholders will mitigate potential issues and reduce risk associated with each ECM. McClure will conduct all construction activities with this approach and be available to DGS staff at any time throughout the entire process.

Associated Risks with schedule, which are identified below, will be identified, monitored, and mitigated by the following techniques:

Associated Risks	Risk Mitigation Techniques to be Employed
Hazardous Materials	• Prior to construction, McClure's construction experts will locate hazardous materials. • McClure will identify, tag and communicate all hazardous materials affected during construction.
Weather Impacts	• 2-week look ahead schedules, with built-in schedule flexibility, will mitigate weather impacts. • Weekly schedule updates and open communication will allow for adjustments and sequence changes.
Occupied Facility	• Weekly communication with DGS staff will ensure coordination by ECM, space & trade. • McClure will be flexible and schedule construction activities around occupancy needs.
Systems Shutdowns	• Identify durations of, and properly schedule & coordinate any required systems shutdowns with DGS. • Phase repairs/replacements during systems off-season to ensure limited impact on DGS staff/operations. • Identify temporary work-space relocations (as needed).

McClure's team process to ensure achievement of critical milestone dates is paramount. One critical step in the team process approach is to review the final schedule with the Commonwealth. This step will help develop and confirm the best means, methods, and durations to execute each schedule task and the effect of the task within each facilities' occupied areas. Each energy conservation measure (ECM) will be carefully coordinated and executed, by phase, with all parties and subcontractors involved through weekly project meetings and on-going group communication. McClure understands that proper planning and increased communication are two major factors in ensuring a successful, expedited schedule.

2-5.3 (2) Critical Path Method (CPM) Schedule

McClure Company has created a project schedule graphic, or critical path method (CPM) schedule, which sets forth a logical progression of critical path activities, including:

- The Notice of Selection
- Duration and submission of the Energy Audit Report
- Full execution of Energy Contract
- Permit submission and approval dates, including L&I, DEP Title V, and Insurance
- Durations of on-site work
- Scheduling of start-up and testing of equipment
- Commissioning
- Training of DGS personnel

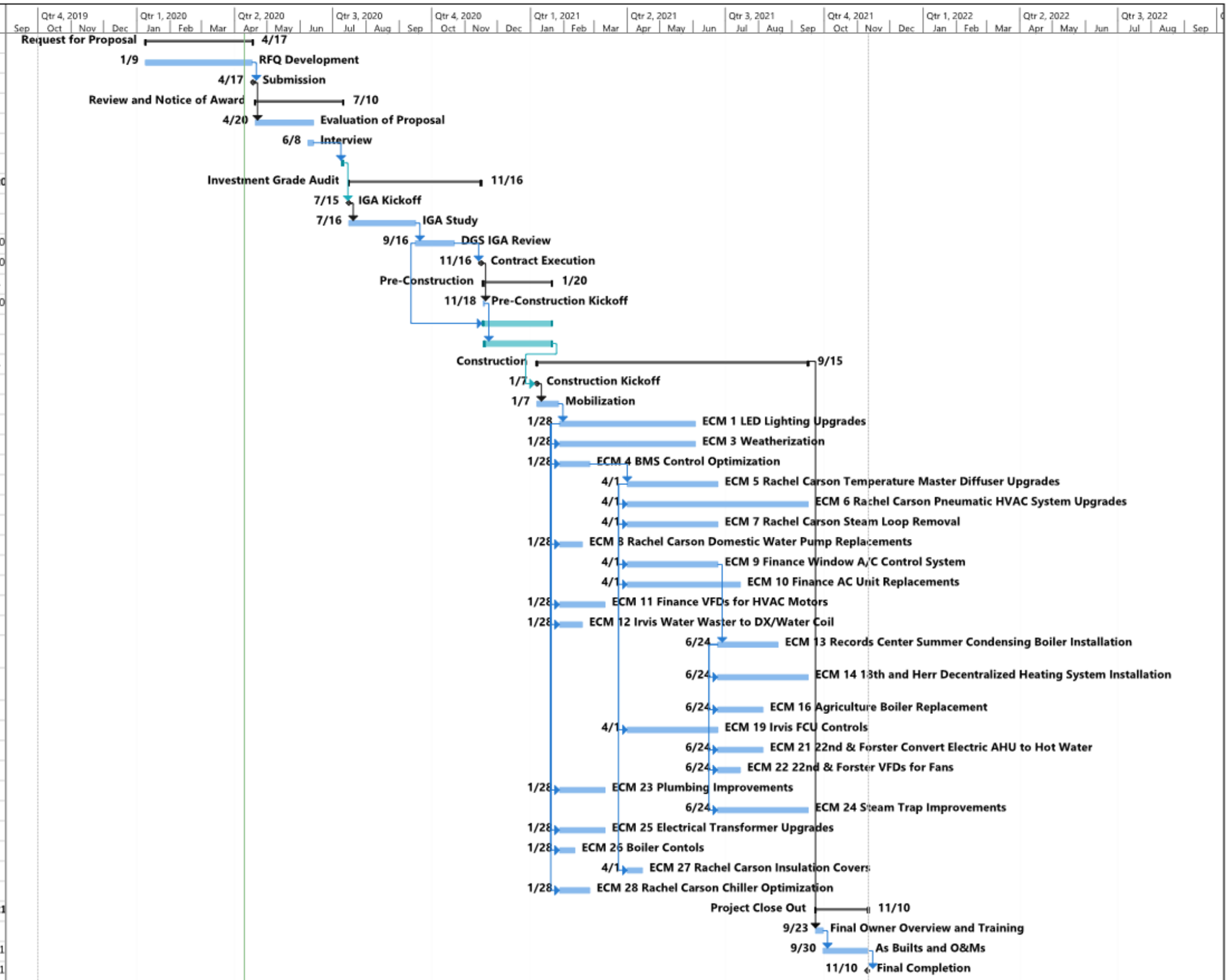
The project schedule graphic can be found in Figure 2 – Project Schedule, located at the end of this section.

2-5.3 (3) Project Coordination

McClure Company's Critical Path Method (CPM) schedule integrates and coordinates construction with all local utilities, subcontractors, equipment / material suppliers and DGS facility personnel. The table featured below summarizes McClure's integration and coordination techniques that will be undertaken with the respective project entities:

Entity	Project Schedule Integration and Coordination Techniques
System Integration	• McClure Company will assist with the necessary control system integration or conversion for existing and selected upgrades. • McClure will provide troubleshooting, commissioning support, and monitoring to supplement the services provided by the control's provider.
Subcontractors	• McClure will incorporate and coordinate all subcontractor schedules and critical path items. • McClure will communicate and revise the schedule weekly and create a forum for open issues.
Equipment Suppliers	• Equipment submittal review and lead times will be evaluated and integrated into the schedule. • Equipment production, shipping, and site arrival will be carefully monitored and documented.
DGS Personnel	• DGS personnel and other project stakeholders will be invited to attend weekly construction meetings where schedule updates and planning will occur. • Activities performed in occupied areas will be closely coordinated with DGS staff.

ID	Task Name	Start	Finish
1	**Request for Proposal**	**Thu 1/9/20**	**Fri 4/17/20**
2	RFQ Development	Thu 1/9/20	Thu 4/16/20
3	Submission	Fri 4/17/20	Fri 4/17/20
4	**Review and Notice of Award**	**Mon 4/20/20**	**Fri 7/10/20**
5	Evaluation of Proposal	Mon 4/20/20	Fri 6/12/20
6	Interview	Mon 6/8/20	Fri 6/12/20
7	Notice of Award	Fri 7/10/20	Fri 7/10/20
8	**Investment Grade Audit**	**Wed 7/15/20**	**Mon 11/16/20**
9	IGA Kickoff	Wed 7/15/20	Wed 7/15/20
10	IGA Study	Thu 7/16/20	Tue 9/15/20
11	DGS IGA Review	Wed 9/16/20	Wed 10/21/20
12	Contract Execution	Mon 11/16/20	Mon 11/16/20
13	**Pre-Construction**	**Wed 11/18/20**	**Wed 1/20/21**
14	Pre-Construction Kickoff	Wed 11/18/20	Wed 11/18/20
15	Final Engineering	Wed 11/18/20	Wed 1/20/21
16	Equipment Procurement	Thu 11/19/20	Wed 1/20/21
17	**Construction**	**Thu 1/7/21**	**Wed 9/15/21**
18	Construction Kickoff	Thu 1/7/21	Thu 1/7/21
19	Mobilization	Thu 1/7/21	Tue 1/26/21
20	ECM 1 LED Lighting Upgrades	Thu 1/28/21	Wed 6/2/21
21	ECM 3 Weatherization	Thu 1/28/21	Wed 6/2/21
22	ECM 4 BMS Control Optimization	Thu 1/28/21	Wed 2/24/21
23	ECM 5 Rachel Carson Temperature Master Diffuser Upgrac	Thu 4/1/21	Wed 6/23/21
24	ECM 6 Rachel Carson Pneumatic HVAC System Upgrades	Thu 4/1/21	Wed 9/15/21
25	ECM 7 Rachel Carson Steam Loop Removal	Thu 4/1/21	Wed 6/23/21
26	ECM 8 Rachel Carson Domestic Water Pump Replacements	Thu 1/28/21	Wed 2/17/21
27	ECM 9 Finance Window A/C Control System	Thu 4/1/21	Wed 6/23/21
28	ECM 10 Finance AC Unit Replacements	Thu 4/1/21	Wed 7/14/21
29	ECM 11 Finance VFDs for HVAC Motors	Thu 1/28/21	Wed 3/10/21
30	ECM 12 Irvis Water Waster to DX/Water Coil	Thu 1/28/21	Wed 2/17/21
31	ECM 13 Records Center Summer Condensing Boiler Installation	Thu 6/24/21	Wed 8/18/21
32	ECM 14 18th and Herr Decentralized Heating System Installation	Thu 6/24/21	Wed 9/15/21
33	ECM 16 Agriculture Boiler Replacement	Thu 6/24/21	Wed 8/4/21
34	ECM 19 Irvis FCU Controls	Thu 4/1/21	Wed 6/23/21
35	ECM 21 22nd & Forster Convert Electric AHU to Hot Water	Thu 6/24/21	Wed 8/4/21
36	ECM 22 22nd & Forster VFDs for Fans	Thu 6/24/21	Wed 7/14/21
37	ECM 23 Plumbing Improvements	Thu 1/28/21	Wed 3/10/21
38	ECM 24 Steam Trap Improvements	Thu 6/24/21	Wed 9/15/21
39	ECM 25 Electrical Transformer Upgrades	Thu 1/28/21	Wed 3/10/21
40	ECM 26 Boiler Contols	Thu 1/28/21	Wed 2/10/21
41	ECM 27 Rachel Carson Insulation Covers	Thu 4/1/21	Wed 4/14/21
42	ECM 28 Rachel Carson Chiller Optimization	Thu 1/28/21	Wed 2/24/21
43	**Project Close Out**	**Thu 9/23/21**	**Wed 11/10/21**
44	Final Owner Overview and Training	Thu 9/23/21	Wed 9/29/21
45	As Builts and O&Ms	Thu 9/30/21	Wed 11/10/21
46	Final Completion	Wed 11/10/21	Wed 11/10/21



Project: Schedule - Cap Comple
Date: Fri 4/10/20

Task | Split | Milestone | Summary | Project Summary | Inactive Task | Inactive Milestone | Inactive Summary | Manual Task | Duration-only | Manual Summary Rollup | Manual Summary | Start-only | Finish-only | External Tasks | External Milestone | Deadline | Progress | Manual Progress

2-5.4 Qualifications Forms

2-5.4.1 GESA Contractor Qualification Forms

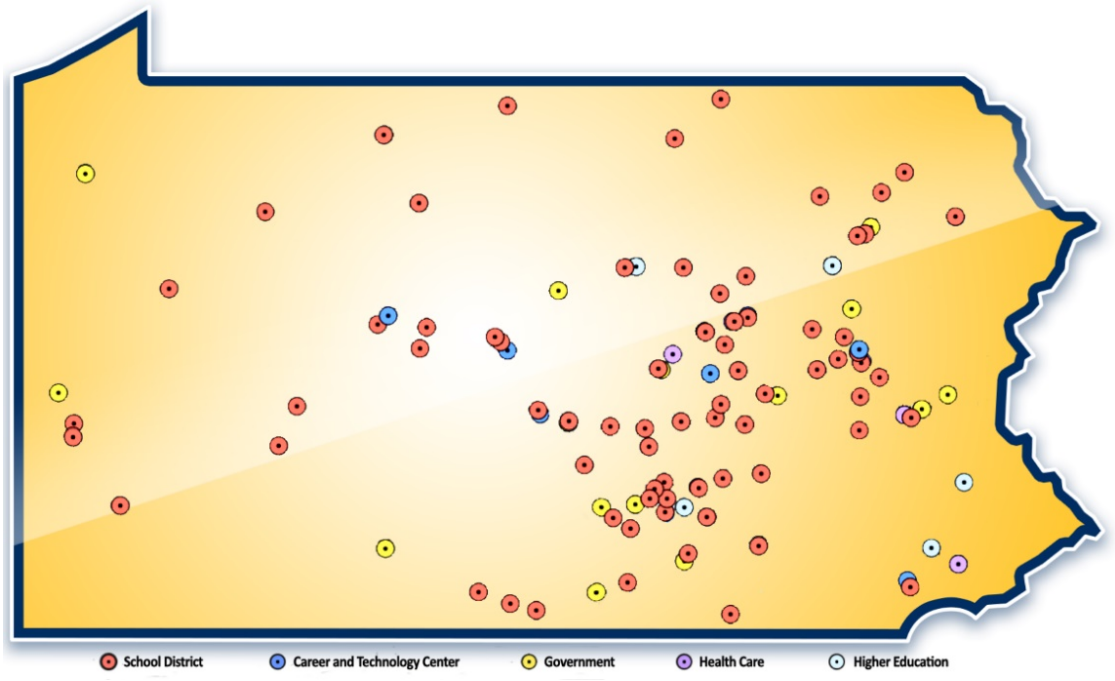
McClure's core team members have the demonstrated qualifications and experience necessary to perform this project. Our in-house team of professional engineers, architects and construction managers take great pride in the quality of work we perform and strive to develop solutions that help our clients to do more with less. In addition, McClure has direct experience already working with DGS; providing HVAC installations and maintenance services to many of its Capitol Complex facilities. We are confident in our ability to successfully develop and implement this customized GESA solution for DGS and look forward to getting started with the Commonwealth team.

McClure Previous Work Experience Serving DGS Capitol Complex Sites

Capital Complex	Total Square Feet	Type of Work / Services Provided
18th & Herr Complex (Incluiding Shops)	83,670	HVAC Services
22nd & Forester St, Office	388,544	
Agricultural Building	131,391	HVAC, Mechanical, Boiler Services
Agricultural Vet Laboratory	62,230	HVAC Repairs
Finance	429,521	HVAC System Services
K. Leroy Irvis (South Office)	207,138	HW Pump Installation, AHU replacement, Sheet Metal work, Services
Rachel Carson Building	420,125	Chiller and Plumbing Services
State Records Center	81,565	Chiller Replacement/Services
Total Square Feet of Space :	1,804,184	

To date, the McClure team dedicated to this GESA program has successfully built over 200 other PA GESA solutions in accordance to the legislation, many of which serve large PA municipal institutions having numerous, distributed facilities over a large area that are similar in operation, technology, and are comparable to the DGS sites included under this GESA program. The map featured below identifies locations throughout the Commonwealth where McClure Company has successfully developed and implemented customized PA GESA programs to schedule; clearly demonstrating our teams' Management Capabilities, Financial Ability to Provide Guarantees, Capacity of Resource Availability, and ability to Commit Resources.

McClure PA GESA Experience – Implemented Project Locations
(Partial Listing)



2-5.4.1 (a) Management Team Individual Qualifications (6-person limit)

Below is a summary of the management team's individual qualifications, including project responsibilities, time with firm, experience with GESA projects, educational / technical training, LEED accredited projects, and other information relevant to the evaluation of the individual.

Jonathan Zeller

Account Executive

Project Responsibilities	**Time with Firm: 1 year / PA GESA Experience: 18 Years**
Primary contact responsible for development, engineering, design and coordination tasks for successful project completion. Jon will communicate Commonwealth project goals to the entire team, including all listed subcontractors, as well as manage the development and engineering effort, assist with securing project financing, energy rebates, and negotiating the contract.	
Educational or Technical Training	
B.A. International Politics & Government / U.S. Army - Certified Clinical Medical Laboratory Technology	
Previous Industry Experience - Employment	
Ameresco, Business Development (12 Years) / Honeywell, Business Development (5 Years)	

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
PA Dept. of Conservation & Natural Resources (DCNR)	State Agency	2019	TBD – In IGA Phase	Account Executive
Delaware County Intermediate Unit	Education	2018	$2.4M	Account Executive
Luzerne County Community College	Education	2018	$8 M	Account Executive
Penn State University – Main Campus	Education	2014	$2.8 M	Account Executive
Flemington-Raritan Regional School District	Education	2017	$4.9M	Account Executive
Wayne Township School District	Education	2016	$10 M	Account Executive
Somerset Hills School District	Education	2015	$3.2M	Account Executive
Franklin Township	Local Gov.	2015	$1.4 M	Account Executive

Shayne Homan, P.E., CEM, LEED AP

Vice President of Energy Services

Project Responsibilities	**Time with Firm: 18 years / PA GESA Experience: 18 Years**
Shayne is responsible for all project services, from engineering to construction. After 16 years, Shayne is experienced in the entire engineering and design work for large, complex institutional work, overseeing all phases from initial concept and design to implementation and construction monitoring.	
Educational or Technical Training	
Bachelor of Science, Mechanical Engineering Technology, The Pennsylvania State University	

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
PA Dept. of Conservation & Natural Resources (DCNR)	State Agency	2019	TBD – In IGA Phase	Vice President
Luzerne County, Wilkes-Barre, PA	Government	2018	$4.2 M	Director
Lackawanna County, Scranton, PA	Government	2015	$7.9 M	Director
York County, York, PA	Government	2010-16	$9.5 M	Director
Northampton County, Easton, PA	Government	2011	$19 M	Account Manager
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	Account Manager
DPW White Haven, White Haven, PA	Government	2010	$9 M	Account Manager
Delaware County Intermediate Unit, Aston, PA	Commercial	2017	$2.6 M	Director
Pine Grove Area SD, Pine Grove, PA	Education	2017	$3.4 M	Director

West Shore SD, Redland, PA	Education	2016-18	$11.4 M	Director
Lehighton SD, Lehighton, PA	Education	2016	$7.7 M	Director
Salisbury SD, Allentown, PA	Education	2013-16	$5.8 M	Director
Northwestern Lehigh SD, New Tripoli, PA	Education	2015	$3.9 M	Director
Harrisburg SD, Harrisburg, PA	Education	2015	$5 M	Director
Moon Area SD, Moon Township, PA	Education	2015	$4.3 M	Director

Brian Moore, LEED GA

Engineering Manager

Project Responsibilities | **Time with Firm: 6 years / PA GESA Experience: 6 Years**

Brian is responsible for the day-to-day management of our engineering efforts and will lead McClure's design engineering team from initial project development through construction. He will oversee the engineering design for all ECMs requiring such services, conduct design reviews, coordinate the Commonwealth as part of its review process, prepare submittals, and produce as-built drawings of all ECMs implemented under this GESA project.

Educational Background

Mechanical Design Technology Degree, Thompson Institute

Recent Projects

Project	*Type*	*Year*	*Cost*	*Role*
PA Dept. of Conservation & Natural Resources (DCNR)	State Agency	2019	TBD – In IGA Phase	Engineering Manager
Luzerne County, Wilkes-Barre, PA	Government	2018	$4.2 M	Senior Engineer
Bedford County, Bedford, PA	Government	2015	$1.7 M	Design Engineer
Northern Lehigh SD, Slatington, PA	Education	2018	$10.7 M	Engineering Manager
Mifflin County SD, Lewistown, PA	Education	2018	$8.8 M	Engineering Manager
Conewago Valley SD, New Oxford, PA	Education	2018	$12.9 M	Engineering Manager
Delaware County IU, Aston, PA	Commercial	2017-19	$17.8 M	Design Engineer

Christopher Stultz, P.E., CEM

Manager Energy Services Project Development

Project Responsibilities | **Time with Firm: 10 years / PA GESA Experience: 10 Years**

Chris is a key member of McClure's design engineering team responsible for performing investment grade facility audits; identifying and qualifying Energy Conservation Measures (ECMs) that require MEP design engineering service. He will benchmark ECMs and develop a preliminary design that progress to buildable construction projects with budgetary savings, costs, and technical scopes of work.

Educational or Technical Training

Master of Architectural Engineering, Architectural Engineering, The Pennsylvania State University
Bachelor of Architectural Engineering, Architectural Engineering, The Pennsylvania State University

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
PA Dept. of Conservation & Natural Resources (DCNR)	State Agency	2019	TBD – In IGA Phase	Manager – Project Development
Luzerne County, Wilkes-Barre, PA	Government	2018	$4.2 M	Senior Engineer
Schuylkill County, Pottstown, PA	Government	2015-16	$900K	Senior Engineer
Bedford County, Bedford, PA	Government	2015	$1.7 M	Senior Engineer
Lackawanna County, Scranton, PA	Government	2015	$7.9 M	Senior Engineer
Kutztown Area SD, Kutztown, PA	Education	2018	$4.2 M	Senior Engineer
West Perry SD, Shermans Dale, PA	Education	2018	$8.5 M	Senior Engineer
Mifflin County SD, Lewistown, PA	Education	2018	$8.8 M	Senior Engineer

Northern Lehigh SD, Slatington, PA	Education	2018	$10.7 M	Senior Engineer
West Shore SD, Redland, PA	Education	2016-18	$11.4 M	Senior Engineer
Delaware County IU, Aston, PA	Commercial	2017-18	$17.8 M	Senior Engineer

Shawn Skethway

Manager of Construction

Project Specific Role | **Time with Firm 20 Years / PA GESA Experience: 25 years**

Shawn will oversee the field supervision and coordinate manpower and site planning requirements during the construction phase. Shawn brings with him over 25 years of experience as a project manager and field supervisor in the construction field and labor force management. Shawn will be in charge of the overall management of the projects including the coordination of subcontractors.

Educational Background

Local #520 Plumber/Pipefitter Apprenticeship Program
U S Navy, Engine Room Nuclear Sub Supervisor, USS John Marshall, 1986 to 1993

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	Type	Year	Cost	Role
Upper Adams SD, Biglerville, PA	K-12	2019-20	$10.7 M	Project Manager
Conewago Valley SD, New Oxford, PA	K-12	2018	$12.8 M	Project Manager
Elizabethtown Area SD, Elizabethtown, PA	K-12	2017	$3.7 M	Project Manager
Luzerne County, Wilkes-Barre, PA	Government	2018	$4.2 M	Project Manager
Central York SD, York, PA	K-12	2017	$5.6 M	Project Manager
Central Columbia Area SD, Bloomsburg, PA	K-12	2017-18	$1.1 M	Project Manager

Andrew McKenna

Commissioning Manager

Project Specific Role | **Time with Firm: 12 Years / PA GESA Experience: 12 years**

Richard is responsible for oversight of project from scope of work development through system commissioning, project close-out and Measurement and Verification (M&V).

Educational Background

- Registered Site Inspector, National Guild of Master Craftsmen, Ireland
- LABVIEW programmer, California State University – Fullerton, CA

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	Type	Year	Cost	Role
Kutztown Area SD, Kutztown, PA	Education	2018	$4.2 M	Commissioning Mgr
Selinsgrove Area SD, Selinsgrove, PA	Education	2014-18	$6 M	Commissioning Mgr
Bloomsburg Area SD, Bloomsburg, PA	Education	2018	$6 M	Commissioning Mgr
Bedford County, Bedford, PA	Government	2015	$1.7 M	Commissioning Mgr
Lackawanna County, Scranton, PA	Government	2015	$7.9 M	Commissioning Mgr
DPW Selinsgrove Center, Selinsgrove, PA	Government	2010	$12 M	Commissioning Mgr
DPW White Haven, White Haven, PA	Government	2010	$9 M	Commissioning Mgr

2-5.4.1 (b) Financial Ability to Provide Guarantee

2019: McClure Company is listed by Team Pennsylvania as One of the "Best Places to Work in Pennsylvania" for PA's large size businesses. Year-after-year, McClure is consistently listed as one of the best places to work in PA.

McClure Company is financially strong and stable with an industry reputation of project performance and customer satisfaction. Our energy savings guarantee is a direct, first party guarantee to the Commonwealth for the full contract term. We are a 66-year-old company that manages over $350M in guaranteed energy savings commitments to PA public institutions. We maintain a $200 million bonding capacity and have over $37M in total assets, demonstrating our financial strength and ability to deliver high quality projects on-time and on-budge. McClure Company continues to grow through acquisition of other industry leading firms, such as Burns Mechanical in 2017, and opening additional office locations throughout the Commonwealth so we may better serve our clients over the long-term. Over the last 5 years alone, we have developed and implemented over $600M worth of customized energy saving solutions, Design/Build projects and services, as presented within the table below.

	PA GESA Projects Completed (Annually)	- Revenue - McClure Energy Services Group (Only)	- Total Revenue – McClure Company
2019	16 PA GESA Projects	$68 Million	$164,000,000
2018	22 PA GESA Projects	$85 Million	$197,000,000
2017	20 PA GESA Projects	$55 Million	$113,573,808
2016	14 PA GESA Projects	$49 Million	$114,979,184
2015	12 PA GESA Projects	$51 Million	$103,997,087
2014	9 PA GESA Projects	$48 Million	$92,967,735
2013	11 PA GESA Projects	$47 Million	$97,836,841

Note: Figures presented above are specific to projects completed within Pennsylvania only, under PA GESA legislation, not projects completed outside the Commonwealth under different State legislations and programs.

As a privately-owned company, please find McClure Company's 2018 independently audited financial statements provided on the following pages within this section. As requested, a history of five (5) other project guarantees and the dollar amount of these projects is presented with the table below. Note, like all of our other 200+ completed GESA projects, each of these projects are within Pennsylvania; demonstrating our local capabilities, expertise and resources that we can commit to the Capitol Complex GESA project to ensure success. As specified, McClure did not include any ECM or cost information of the project in this portion of the Technical Submission.

Five (5) Project History: Name	Project Guarantee	Project Value
DPW, Selinsgrove Center	$537,445	$17,903,563
DPW, White Haven	$570,863	$8,494,911
County of Northampton	$1,545,917	$ 19,089,413
County of Schuylkill	$62,586	$1,876,488
County of York	$ 592,007	$ 9,539,807

In consideration of the financial information provided under this section, McClure Company demonstrates that it has the financial strength and ability to develop, design, build, and administer a project guarantee over the entire contract term.

MCCLURE COMPANY

Balance Sheets
December 31, 2019 and 2018

	2019	2018
ASSETS		
Current assets:		
Cash and cash equivalents	$ 4,789,386	$ 6,280,782
Contract receivables, net	14,213,262	18,351,953
Retainage receivable	3,598,985	4,275,420
Due from related party	11,812,162	12,029,113
Cost and estimated earnings in excess of billings on uncompleted contracts	4,634,105	3,441,524
Inventories	436,948	400,898
Prepaid expenses and other current assets	138,480	216,458
Total current assets	39,623,328	44,996,148
Property, plant and equipment, net	5,625,732	2,393,765
Goodwill, net	14,861,118	16,864,864
Other assets	117,329	109,930
	$ 60,227,507	$ 64,364,707
LIABILITIES AND STOCKHOLDER'S EQUITY		
Current liabilities:		
Current portion of long-term debt	$ 101,904	$ -
Accounts payable	9,629,427	11,873,643
Accrued expenses	8,095,195	9,228,058
Billings in excess of costs and estimated earnings on uncompleted contracts	4,956,465	9,617,270
Total current liabilities	22,782,991	30,718,971
Long-term debt	3,104,901	-
	25,887,892	30,718,971
Stockholder's equity:		
Common stock, $1 par value; 100,000 shares authorized, 100 shares issued and outstanding	100	100
Additional paid-in capital	20,338,853	20,338,853
Retained earnings (See Note 1)	14,000,662	13,306,783
	34,339,615	33,645,736
	$ 60,227,507	$ 64,364,707

2-5.4.1 (c) Resource Availability

McClure Company's Resource Availability is calculated as follows:

- 3-year average: $136,000,000
- Current Committed Backlog: $47,000,000

2-5.4.1 (d) Statement of Readiness and Commitment of Resources

Per the RFP Project Schedule, McClure Company confirms the persons identified in this RFQ are available and will be committed to the Project for the time periods referenced in the RFQ Project Schedule, and that the Resource Availability reported above will be committed to the Project, as referenced in the RFQ Project Schedule and Work Plan.

2-5.4.1 (e) Notification of Default and Debarment

McClure Company certifies that it has no contract default or debarment within the last 5 years.

2-5.4.2 Design-Consultant Qualification Forms

McClure has not partnered with any third-party design consultants for this project at this time and intends to locally perform all engineering design services with our in-house staff. We have substantial in-house engineering design capability and expertise that we will bring to the DGS Capitol Complex GESA project. This ability enables McClure Company to more cost-effectively address engineering design requirements when compared to other ESCOs. Unlike competitors, we do NOT need to out-source these services to outside firms, which requires other ESCOs to then apply their added Overhead and Mark-Ups fees to the 3rd party design costs. Our approach towards design engineering results in significant cost-savings benefits for our clients, enabling us to address more capital improvements for DGS.

Our team of local, in-house P.E.'s and LEED certified engineers will further develop ECM designs in accordance to the PA DGS GESA Project Design Manual. In addition, McClure design engineers are an integral part of our dedicated project team, and will remain involved throughout Development, Construction, and Post-Construction phases of the project. This results in our ability to streamline the provision of services to the Commonwealth, deliver a higher standard of quality into each ECM, and further ensure the success of this GESA project serving DGS.

2-5.4.2 (a) Firm's Experience on GESA Projects

Since the PA Guaranteed Energy Savings Act (GESA) originally passed as legislation, McClure Company has over 20 years' worth of GESA experience developing and implementing solutions serving governmental, public school district, higher education, and healthcare type clients throughout the Commonwealth. To date, we have successfully built over 200 PA GESA solutions in accordance to the legislation, many of which were completed under the PA DGS GESA program. Some sample case studies demonstrating our PA GESA experience are presented under this section, and include, as specified by the RFQ: date(s), location, owner, owner contact, project amount, description, status of project and if each project was completed as originally schedule. In addition, a comprehensive listing of our PA GESA project experience is also featured on the following page. Note, all but one of these listed projects serve Pennsylvania clients, and are not project completed from outside the Commonwealth under an alternate legislation or energy program.

Demonstrated Experience: McClure Company's PA GESA Projects (*Partial Listing*)

Adams County Government
Allegheny-Clarion School District
Annville-Cleona School District
Athens Area School District
Bald Eagle Area School District
Beaver Area School District
Beaver County
Bedford County
Bellefonte Area School District
Benton Area School District
Bethany Towers
Bishop Hafey High School
Bloomsburg Area School District
Bloomsburg Hospital
Bryn Mawr College
Cameron County School District
Camp Hill School District
Carbon County Area Vocational Technical School
Carlisle Water Pollution Control Facility
Central Columbia School District
Central PA Institute of Science and Technology
Central York School District
Chichester School District
City of Allentown
City of Bethlehem
City of Bethlehem Ice Rink
City of Harrisburg
City of Lock Haven
Clearfield Area School District
Clearfield County Career and Technology Center
Columbia-Montour AVTS
Commonwealth of PA, DPW, Selinsgrove Center
Commonwealth of PA, DPW, White Haven Center
Conewago Valley School District
Danville Area School District
Delaware Valley College
Delaware County Intermediate Unit
Derry Township School District
Eastern Lebanon County School District
East Lycoming School District
Elizabethtown Area School District
Fleetwood Area School District
Forest Area School District
Forest City Regional School District
Fox Chase Cancer Center
Geisinger Health System
Good Shepherd Rehab Center
Gnaden Huetten
Greencastle-Antrim School District
Greenwood School District
Halifax Area School District
Hamilton Health
Harrisburg School District
Hazleton Area School District
Hershey Medical Center
Huntingdon Area School District
Jim Thorpe School District
Juniata County Government
Juniata County School District
Kane Area School District
King's College
Kutztown Area School District
Lackawanna County Government
Lackawanna Trail School District
Lakeland School District
School District of Lancaster
Lehighton Area School District
Linden Hall School for Girls
Lebanon Valley College
Luzerne County
Lycoming College
Lycoming Career and Technology Center
Meadville Area Recreational Facility
Mifflin County School District
Mifflin-Juniata Career & Technology Center
Millersburg Area School District
Millville Area School District
Minersville Area School District
Moon Area School District
Mount Carmel Area School District
New-Hope Solebury School District
Northampton County
Northern Lehigh School District
Northern Potter School District
Northern York County School District
Northumberland County AVTS
Northwest Area School District
Northwestern Lehigh School District
Old Forge School District
Panther Valley School District
PA State Education Association (PSEA)
Penns Manor Area School District
Pennsylvania State University
Philipsburg-Osceola Area School District
Pinnacle Health Systems
Pine Grove Area School District
Quaker Valley School District
Ringgold School District
Riverside School District
St. Joseph's University
Sacred Heart Hospital
Salisbury Township School District
Schuylkill County Government
Selinsgrove Area School District
Smethport Area School District
South Eastern School District
South Middleton School District
Southern Columbia Area School District
Southern Tioga School District
Steelton Highspire School District
Sunbury Hospital
Susquehanna Township School District
Tamaqua Area School District
Tri-Valley School District
Tunkhannock School District
Tuscarora School District
Troy Area School District
Upper Adams School District
Upper Dauphin Area School District
United School District
U.S. Naval Support Station, Mechanicsburg, PA
U.S. Boiler
Wallenpaupack Area School District
Waynesboro Area School District
Weatherly Area School District
West Branch Area School District
West Perry School District
West Shore School District
West York School District
Williamsport Area School District
Williams Valley School District
York County Government

Selinsgrove Center

Selinsgrove, PA

PA Department of Human Services (DHS)

Annual Savings: $1,096,545

Project Owner Name and Location	Selinsgrove Center 1000 Route 522 Selinsgrove, PA 17870
Contract Type	GESA
Project Size	979,416 Square Feet
Project Cost	$11,903,563 Phase I - $6,000,000 Phase II in development
Date Started	June 1, 2010
Date Completed	June 31, 2011
Contract Start & End Dates	June 1, 2011 to June 1, 2026
Annual Operational Savings, Type	$373,891, Equipment and Maintenance Savings
Method of Savings, M&V	IPMVP Option A, & B
Project References	Mr. John Dubaich, PE Telephone Number: (717) 772-2087
ESCO Project Team	Shayne Homan, PE, CEM – Account Manager Matthew Tressler, PE, CEM – Senior Engineer Alyssa Wingenfield, PE, LEED AP – Engineering Bill Smith – Measurement and Verification

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Primary ECMs:

Campus Wide Lighting Upgrades

Campus Wide Steam Trap Replacement

Building Automation System Replacement

Gas Fired Steam Boiler Installation

Steam Turbine Installation

315,000 SF Roof Replacement

1300 Ton Cooling System Installation

Coal Boiler Automatic Controls

(2) 1 Megawatt Emergency Generators Installed

Solar Thermal Pool Heating System & Automatic Pool Cover

White Haven State Center

White Haven, PA

PA Department of Human Services (DHS)

Annual Savings: $660,909

Project Owner Name and Location	White Haven Center 827 Oley Valley Road White Haven, PA 18661
Contract Type	GESA
Project Cost	$8,494,911
Date Started	July 2010
Date Completed	July 2012
Contract Start & End Dates	July 2011 – July 2026
Annual Operational Savings, Type	$122,945, Equipment and Maintenance Savings
Method of Savings, M&V	IPMVP Option A & B
Project References	Mr. John Dubaich, PE, Electrical Engineer PA Department of Public Welfare (717) 772-2087 jdubaich@pa.gov
ESCO Project Team 	Shayne Homan, PE, CEM – Account Manager, project development Matt Tressler, PE – Engineer Dean Badorf – construction management Bill Smith – measurement and verification

pennsylvania
DEPARTMENT OF HUMAN SERVICES

Primary ECMs:

Campus Wide Lighting Upgrades

Campus Wide Steam Trap Replacement

Campus Wide Underground Steam Line Replacement

Building Automation System Installation

Coal Boiler Automatic Controls

New Building Construction for Summer Coal Boiler

Solar Thermal Pool Heating System

Insulation Upgrades

Variable Speed Pumps and Fans

Adams County

Gettysburg, PA

Annual Savings: $58,900

Project Owner Name and Location	District of Adams 117 Baltimore Street Gettysburg, PA 17325-2391
Contract Type	GESA
Project Cost	$1,187,374
Date Started	July 2009
Date Completed	August 2012
Contract Start & End Dates	January 2010 – December 2025
Annual Operational Savings, Type	$15,786, Equipment and Maintenance Savings
Method of Savings, M&V	IPMVP Option A & C
Project References	Mr. George Groft, District Engineer (717) 337-9825 ggroft@adamsDistrict.us
ESCO Project Team	Shayne Homan, PE, CEM – Account Manager, project development Dean Badorf – construction management Bill Smith – measurement and verification

Primary ECMs:

Redesign of Existing Heating and Cooling System

Domestic Hot Water Upgrade

Roof Top Unit Replacements

Building Automation System Installation

Lighting Upgrades

Window Replacements

Building Envelope Optimization

Plumbing Upgrades

Northampton County

Easton, PA

Annual Savings: $1,625,000

Project Owner Name and Location	Northampton County 669 Washington Street Easton, PA 18042
Contract Type	GESA
Project Size	328,149 Square Feet
Project Cost	$19,089,413
Date Started	June 1, 2010
Date Completed	October 31, 2012
Contract Start & End Dates	February 25, 2011 to June 1, 2026
Annual Operational Savings, Type	$81,866, Equipment and Maintenance Savings
Method of Savings, M&V	IPMVP Option A, & C
Project References	Mr. Scott Parsons, Deputy Directory Telephone Number: (610) 829-6396 Sparsons@northamptoncounty.org
ESCO Project Team	Shayne Homan, PE, CEM – Director of Energy Services Matthew Tressler, PE, CEM – Senior Engineer Brian Moore, LEED GA – Engineering John Gunning, PE, LEED GA – Engineering Chris Stultz, E.I.T., CEM – Energy Engineer Bill Smith – Measurement and Verification

Primary ECMs:

County Wide Lighting

Steam Trap Upgrade

RTU Replacements

Boiler Replacements

Prison BAS

Window Replacements

Plumbing Upgrades

Chiller Replacements

Roof Replacement

Electrical Upgrade

HVAC System Upgrade

Sewer Line Installation

2-5.4.2 (b) Individual Qualifications (4-person limit)

McClure Company implements approximately $100 million in design-build energy focused projects within Pennsylvania each year. Our in-house Professional Engineering expertise and staff enable McClure to self-perform engineering design services relating to mechanical, electrical, plumbing, HVAC, and renewable energy technologies. This results in greater quality control throughout the entire GESA process, and a significant cost-savings benefit to our clients as we avoid applying additional mark-ups to third-party engineering costs. As specified, presented below are the individual qualifications of four members from McClure Company's Engineering Design team assigned to the DGS GESA Project. Brian Moore (Engineering Manager) will lead this team throughout the entire GESA process with additional support from McClure's Design Engineering Group if ever needed.

John Gunning, P.E., LEED GA

Mechanical Engineer

Project Responsibilities	**Time with Firm: 14 years / PA GESA Experience: 14 Years**
John is a key member of McClure's Mechanical/Electrical/Plumbing (MEP) design engineering team responsible for engineering development and design. John has 14 years of engineering, design, and construction experience. He reports to Brian Moore and is responsible for various engineering, design and coordination tasks for successful project completion, which include field verification, engineering tasks, cooling / heating load calculations and piping and ductwork design.	
Educational or Technical Training	
Bachelor of Science in Engineering, Mechanical Engineering, Messiah College	

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	Type	Year	Cost	Role
Luzerne County, Wilkes Barre, PA	Government	2018	$4.2 M	Mechanical Engineer
Lackawanna County, Scranton, PA	Government	2015	$7.9 M	Mechanical Engineer
West Perry SD, Shermans Dale, PA	Education	2018	$8.5 M	Mechanical Engineer
Selinsgrove Area SD, Selinsgrove, PA	Education	2018	$5.9 M	Mechanical Engineer
Bloomsburg Area SD, Bloomsburg, PA	Education	2018	$6.5 M	Mechanical Engineer
Conewago Valley SD, New Oxford, PA	Education	2018	$12.9 M	Mechanical Engineer
West Shore SD, Redland, PA	Education	2016-18	$11.4 M	Mechanical Engineer
Elizabethtown Area SD, Elizabethtown, PA	Education	2017	$3.7 M	Mechanical Engineer
Forest Area SD, Marienville, PA	Education	2017	$3.9 M	Mechanical Engineer
Greencastle-Antrim SD, Chambersburg, PA	Education	2015-17	$16.7 M	Mechanical Engineer

Michael Grochalski, P.E., CEM

Senior Project Development Engineer

Project Responsibilities	**Time with Firm: 8 years / PA GESA Experience: 8 Years**
Michael is responsible for the day-to-day management of our project development efforts, and will lead McClure's development engineering team from initial facility scoping and investment grade audits to identify and qualify technical Energy Conservation Measures (ECMs). Additionally, he will oversee all subcontract partners throughout the IGA process, properly coordinate site inspections with DGS staff, and collect and analyze of utility billing histories of each DGS facility.	
Educational Background	
Bachelor of Science, Mechanical Engineering, The Pennsylvania State University	

Experience with GESA and LEED Accredited Projects (all LEED projects are designated by an asterisk*)

Project	*Type*	*Year*	*Cost*	*Role*
PA Dept. of Conservation & Natural Resources (DCNR)	State Agency	2019	TBD – In IGA Phase	Senior Engineer
Luzerne County, Wilkes-Barre, PA	Government	2018	$4.2 M	Senior Engineer
Bedford County, Bedford, PA	Government	2015	$1.7 M	Senior Engineer

Schuylkill County, Pottstown, PA	Government	2015-16	$900K	Senior Engineer
York County, York, PA	Government	2010-13	$9.5 M	Design Engineer
Northampton County, Easton, PA	Government	2011	$19 M	Senior Engineer
Delaware County Intermediate Unit, Aston, PA	Commercial	2017-18	$17.8 M	Senior Engineer
Northern Lehigh SD, Slatington, PA	Education	2018	$10.7 M	Senior Engineer
Mifflin County SD, Lewistown, PA	Education	2018	$8.8 M	Senior Engineer
Conewago Valley SD, New Oxford, PA	Education	2018	$12.9 M	Senior Engineer
Penns Manor Area SD, Clymer, PA	Education	2018	$7.3 M	Senior Engineer

Jeremy Shughart, P.E.

Senior Mechanical Engineer

Project Responsibilities	**Time with Firm: 1 year / PA GESA Experience: 20 Years**

Jeremy is responsible for overseeing development and engineering tasks, including; load calculations, equipment selection, construction document creation, and HVAC / Plumbing design. He collaborated with the client and other members of team to provide mechanical solutions to building systems that saved the client money, increased critical system reliability, and provided better serviceability of the systems.

Educational Background

Bachelor's Degree in Mechanical Engineering, The Pennsylvania State University – 1999

Experience with GESA and LEED Accredited Projects

Project	*Type*	*Year*	*Cost*	*Role*
Fleetwood Middle School, Fleetwood PA	K-12	2019	$2.1 M	Mechanical Engineer
Williamsburg Community, Williamsburg PA	K-12	2018	$3.8M	Mechanical Engineer
North Brunswick High School, North Brunswick NJ	K-12	2019	$7.8M	Mechanical Engineer
Virginia Commonwealth University, Richmond VA	University	2018	$6.2M	Mechanical Engineer

Doug Boswell, PE, LEED AP

Project Engineer

Job Responsibilities	**Time with Firm: 5 years / PA GESA Experience: 5 Years**

Doug has been with McClure Company and working in the PA GESA industry for 5 years. He is a key member of McClure's design engineering team responsible for overseeing all engineering tasks, including load calculations, equipment procurement, and HVAC / Plumbing design. He works with the client and the energy services team to provide mechanical solutions to building systems.

Educational Background

Master of Architectural Engineering, Architectural Engineering, The Pennsylvania State University
Bachelor of Architectural Engineering, Architectural Engineering, The Pennsylvania State University

Recent Projects

Project	*Type*	*Year*	*Cost*	*Role*
Juniata County, Mifflintown, PA	Government	2106	$350K	Project Engineer
Smethport Area SD, Smethport, PA	Education	2018	$6 M	Project Engineer
Allegheny-Clarion SD, Foxburg, PA	Education	2018	$5.3 M	Project Engineer
Kane Area SD, Kane, PA	Education	2018	$6.6 M	Project Engineer
Millersburg Area SD, Millersburg, PA	Education	2018	$724K	Project Engineer
Riverside SD, Taylor, PA	Education	2018	$2.9 M	Project Engineer
Athens Area SD, Athens, PA	Education	2017	$8.3 M	Project Engineer

2-5.4.2 (c) Firm's Statement of Readiness and Commitment of Resources per the RFQ Project Schedule

McClure Company re-confirms that our design engineering staff identified within this RFQ response are available and will be committed to the Project for the time period(s) as described in the RFQ Project Schedule.

2-5.4.2 (d) Entity's Notification of Default or Debarment

McClure Company certifies that it has no contract default or debarment within the last 5 years.

2-5.4.3 Construction – Key Subcontractor Qualification Forms

At this time, McClure Company has identified the following pool of "key subcontract" partners that can collaboratively work with McClure throughout each phase of the DGS GESA project. All of these firms are classified as Small Diverse Business (SDBs) and/or Veteran Business Enterprises (VBEs) partners that are currently verified under the PA DGS Bureau of Diversity, Inclusion & Small Business Opportunities (BDISBO). Our pool of potential key subcontract partners include:

Subcontractors
- Pool of Potential SDB & VBE Partners -

Firm	Work Scope	Classification
Global Energy Services	Lighting , Building Envelope, & Water Conservation	SDB
Lighting Services Inc.	LED Lighting Upgrades	SDB
National Energy Solutions	LED Lighting Upgrades	VBE
LC Insultations	Mechanical Insulation	VBE
PA Pride Insulation	Mechanical Insulation	SDB
Air Management Technologies Inc.	Mechanical, Plumbing, HVAC	VBE
Zerodraft Central Pennsylvania	Building Envelope	SDB
Keystone Electrical Supply	Electrical Systems/Components Supply	VBE
Millville Heating, Plumbing & Solar	Solar Thermal/PV	SB
Makdad Industrial Supply Company	Mechanical, HVAC Supply	SD VBE
H2O Applied Technologies	Water Conservation Measures	SDB
Nexgen Automation	Controls, Automation	SB

These firms were selected by McClure Company due to their work experience on other GESA projects, resource commitment capability, commitment to achieve project milestones and schedule, proximity to DGS locations, classification as a PA DGS verified SDB/VBE firm, capability to professionally work within public facilities and adhere to the project's Safety Plan, preliminary pricing received in preparing this submission, bonding and insurance capacity, and the history and quality of previous work performance.

As previously discussed under **Section 2-5.1: Project Management Team Overview – Subcontractor Selection,** if desired by DGS, McClure can, during the IGA phase of the project, competitively bid scopes-of-work associated with each Energy Conservation Measure (ECM) to our listed pool of subcontract partners and any additional BDISBO verified SDB and VBE firms identified within our Organizational Chart in each respective trade. This competitive vetting approach for all installation labor, material and technology typically results in lower overall project costs, or "Bid Savings", for our clients as each subcontractor competes for each project. At the discretion of the Commonwealth, any Bid Savings realized during the IGA phase will be: 1) applied back into the GESA project where McClure Company can address additional scope for DGS, or 2) accrue back to the Commonwealth as positive cashflow under "Net Annual Benefit" of the project's financial pro forma, thus improving the project's overall economic benefits.

McClure Company remains flexible regarding the selection of subcontract partners. Our open approach towards subcontractor selections maximizes participation opportunities for all verified Small Diverse Businesses or Veteran Business Enterprises and mobilizes a diverse workforce on all of our GESA projects. In addition, it warrants that the level of commitment McClure Company makes to SDB & VBE participation will be achieved, and that all project costs are properly vetted through a competitive process, thus ensuring best overall value for the Commonwealth and its taxpayers. We value the Commonwealth's feedback regarding our current pool of identified subcontract partners, including SDB and VBE firms. Any additional verified firms that could be identified would supplement our current listing and be included in our competitive vetting process.

As specified, please find presented under this section GESA experience, qualifications, statement of readiness and commitment of resources, workman's compensation rating, and notification of default or debarment for each "key subcontract" partner identified at this time.

Lighting Services, Inc.

1. Subcontractor's Experience

Bethel Park School District

Date: 2015
Owner: Bethel Park School District
Location:
Contact: Robert Kovalan - Trane
Amount: $781,503
Description: More than 6,100 interior and exterior fixtures
Status: Completed on schedule

Georgia World Congress Center

Date: 2017
Owner: Georgia World Congress Center
Location:
Contact: Cameron Griffith - Trane
Amount: $3,399,000
Description: More than 5,000 exterior fixtures
Status: Completed on schedule

Pleasant Valley School District

Date: 2019
Owner: Pleasant Valley School District
Location: Brodheadsville, PA 18322
Contact: Willem Pennings
Amount: $1,022,054.00
Description: More than 9,800 interior and exterior fixtures
Status: Completed on schedule

Woodland Hills School District

Date: Completed on schedule in 2018
Owner: Woodland Hills School District
Location: North Braddock, PA
Contact: Roshelle Fennell – Reynolds Energy
Description: More than 1,033 exterior fixtures
Status: Completed on schedule

2. Key Personnel

Mike Rohm
Project Responsibilities: Supervisor
Time with Firm: 16 years
Experienced with GESA projects: no
Education or Training: NALMCO CLEP certification, Portland Lakes Career Center, US Army – Sergeant Infantry
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight of installation work, project reporting and project close-out.

Jeffery Kinney
Project Responsibilities: Supervisor
Time with Firm: 3 years
Experienced with GESA projects: no
Education or Training: AEE CLEP certification, State of Tennessee Master Electrician and Contractor, Lenoir Community College
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

Thomas Petrey
Project Responsibilities: Supervisor
Time with Firm: 9 years
Experienced with GESA projects: no
Education or Training: AEE CLEP certification holds Electrical Contractor licenses in multiple states
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

Scott Dennison
Project Responsibilities: Supervisor
Time with Firm: 11 years
Experienced with GESA projects: no
Education or Training: AEE CLEP certification, OSHA 30-hour
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

3. Statement of Readiness

All Lighting Services Inc. personnel identified are available and will be committed to the project for the time period referenced in the RFP Project Schedule. Statement Letter of Readiness is attached.

4. Subcontractor's Workman's Compensation Experience Modification Rating

The Hartford Insurance Group
Policy Number: 45WBCBR3316
This policy is for work performed outside of the State of Ohio.
LSI is not eligible for an EMR rating from the Hartford.
We are eligible for a unity modification rating which is 1.00
The Hartford shows that our policy has been in effect since 5/2/2013 and there have been no claims.

5. Notification of Default or Debarment

Lighting Services Inc. has not been debarred and is not in default of any contract.

H2O Applied Technologies

H2O Applied Technologies LLC
PA SDB (Woman Owned)

1. **Experience on GESA Projects**
   Luzerne County Prison

   Date: 2018
   Owner: Luzerne County PA
   Contact: Subcontractor to McClure
   Amount: $565,641
   Description: Domestic Fixtures (Standard and Penal), Steam Traps, Cooling Tower Sewer Credit, Laundry Ozone System
   Status: Completed

   Chester County Correctional Facility

   Date: 2015
   Owner: Chester County PA
   Contact: Subcontractor to Constellation
   Amount: $1,311,928
   Description: Domestic Fixtures (Standard and Penal), Kitchen Equipment Retrofits, Steam Traps, Steam Insulation, Laundry Ozone System
   Status: Completed

   Lackawanna County Correctional Facility

   Date: 2015
   Owner: Lackawanna County PA
   Contact: Subcontract to McClure
   Amount: $942,416
   Description: Domestic Fixtures (Standard and Penal), Laundry Ozone System
   Status: Completed

   DPW Warren State Hospital

   Date: 2010
   Owner: State of Pennsylvania
   Contact: Subcontractor to Johnson Controls
   Amount: $623,500
   Description: Steam traps
   Status: Completed

2. **Superintendent Qualifications**
   Justin Clark, CEM
   Project Responsibilities: Senior Project Engineer
   Time with Firm: 12 years
   Experienced with GESA projects: yes
   Education or Training: Bachelor of Science Mechanical Engineering Worcester Polytechnic Institute
   Relevant information: Mr. Clark has develop over 75 project ($38 Million) of water and energy conservation measures.

   Richard Johnson, CEM
   Project Responsibilities: Senior Project Manager Development Engineer
   Time with Firm: 17 years
   Experienced with GESA projects: yes

Education or Training: Bachelor of Science, Mechanical Engineering from the University of Massachusetts
Relevant Information: Mr. Johnson has been the Project Manager for over 60 projects ($30 Million) of water and energy conservation measures.

David MacIntosh, P.E.
Project Responsibilities: Vice President Operations
Time with Firm: 11 years
Experienced with GESA projects: yes
Education or Training: Bachelor of Science Mechanical Engineering University of Massachusetts
Relevant Information: Mr. MacIntosh brings a strong technical engineering background a comprehensive experience in senior-level management.

3. **Statement of Readiness and Commitment of Resources**
H2O Applied Technologies LLC (H2O) team members assigned to the PA Capitol Complex Project are available and will be committed to the Project for the duration as describe in the project schedule.

4. **Workman's Compensation Experience Modification Rating**
2016 – 1.00
2017 – .92
2018 – .92
2019 – .92

5. **Entity's Notification of Default or Debarment**
H2O has not defaulted on any of its contracts and has never been debarred.

NOTICE OF SMALL BUSINESS SELF-CERTIFICATION
AND SMALL DIVERSE BUSINESS VERIFICATION

pennsylvania
DEPARTMENT OF GENERAL SERVICES

The Department is pleased to announce that

H2O APPLIED TECHNOLOGIES LLC

has successfully completed the Pennsylvania Department of General Services' process for self-certification as a small business under the Commonwealth's Small Business Contracting Program, and is verified as a Small Diverse Business with the following designation(s):

BUSINESS TYPE(s): **Procurement Services**

CERTIFICATION NUMBER: **322574-2012-09-SB-W**
CERTIFICATION TYPE: Woman Business Enterprise

ISSUE DATE: **09/13/2012** EXPIRATION DATE: **09/30/2019**

RECERTIFIED DATE: **8/30/2017**

Kerry L. Kirkland

Kerry L. Kirkland, Deputy Secretary
Diversity, Inclusion, and Small Business Opportunities

JUSTIN CLARK, CEM
SENIOR PROJECT ENGINEER

PROFESSIONAL EXPERIENCE:

- 2012 – Present, Senior Project Engineer, H2O Applied Technologies, Boston MA
- 2006 – 2011, Project Engineer, H2O Applied Technologies, Boston MA
- 2005 (Summer), Engineering Intern, Whatman Inc, Sanford ME

CERTIFICATIONS/AFFILIATIONS:

- Certified Energy Manager
- I-CON Systems, Inc. Certified Installer
- Steam Trap Examiner, Level I (UE Systems)
- Association of Energy Engineers
- American Society of Heating, Refrigeration and Air-Conditioning Engineers
- Engineer In Training (MA)
- OSHA 10-hour safety course (2011)

EDUCATION:

- BS, Mechanical Engineering, Worcester Polytechnic Institute

Mr. Clark joined the H2O team in 2006. He provides engineering support for all phases of H2O's projects. He audits customer facilities, analyzes utility data, and collects Measurement and Verification data and calculates water and energy savings for installed conservation measures. Mr. Clark specializes in multifamily housing, correctional facilities, steam trap surveys, and the engineering of non-domestic water conservation measures. He is a certified I-CON installer, trained by a leading manufacturer of electronic plumbing controls in the correctional industry, and holds Steam Trap Examiner Level I certification from UE Systems.

Mr. Clark conducts site audits, develops the project scope, calculates water and energy savings, writes the bid specs, and works closely with the customer's project development team to bring the project from preliminary audit to contract over the course of several weeks or months.

Since 2010, Mr. Clark has also managed the installation phase of H2O's projects, including Children's Hospital Boston, Zambarano Hospital, and Anna Maria College.

Mr. Clark has been on the project team for several of H2O largest projects: Brigham and Women's Hospital, multi-hospital installations for Catholic Health East and the North Shore-LIJ Health System, and many others.

RICHARD JOHNSON, CEM
SENIOR PROJECT MANAGER/DEVELOPMENT ENGINEER

PROFESSIONAL EXPERIENCE:

- 2010 – Present, Project Manager/Development Engineer, H2O Applied Technologies, Boston MA
- 2004 – 2010, Project Manager/Development Engineer, H2O Applied Technologies, Boston MA
- 2002 – 2003, Lead C/I Program Engineer - Energy Management Department, Keyspan Energy Delivery, Waltham MA
- 2000 – 2002, Senior Engineer - Account Support Department, NSTAR Electric & Gas Company, Westwood MA
- 1993 – 2000, Account Support Representative/Customer Service Engineer, Boston Edison Company, Boston MA
- 1990 – 1993, Energy Conservation Project Engineer, KENETECH Energy Management, Burlington MA

CERTIFICATIONS/AFFILIATIONS:

- Certified Energy Manager
- Association of Energy Engineers (AEE), New England Chapter
- ASME
- ASHRAE
- Member of the Northeast Combined Heat and Power Initiative.
- OSHA 30-hour safety course (2017)

EDUCATION:

- BS, Mechanical Engineering, University of Massachusetts - Lowell

With over 20 years of experience, Mr. Johnson develops, designs and oversees the installation of H2O's water and energy conservation projects. As Project Development Engineer he is responsible for developing accurate field audits, confirming savings, developing detailed scopes of work and ensuring smooth transitions from the engineering phase to construction and subsequent turnover for measurement and verification. As a Project Manager Mr. Johnson has managed several of H2O's largest projects, including the multi-hospital North Shore-LIJ Health System.

Prior to joining H2O, Mr. Johnson managed KeySpan's Commercial/Industrial and Multifamily utility efficiency programs. In this capacity he managed the more technologically complex projects, and supervised subcontracted implementation of mid-sized customer projects. He also managed KeySpan's Building Practices and Demonstrations program, which was created to investigate and promote emerging or underutilized utility efficiency technologies.

As a Senior Engineer at NSTAR Electric & Gas Company, Mr. Johnson assisted in implementing of Federal Area Wide energy conservation projects for NSTAR. He also developed and implemented NSTAR's interconnection guidelines for On-Site Generation (OSG) projects.

As a Technical Manager for Boston Edison's Enerlink energy analysis software product, Mr. Johnson supported 150 customer site installed software copies and upgrades. He also served as an engineer for the utility's Small C/I and Large C/I rebate programs, which entailed the design of complex energy efficient systems for both new construction and retrofit applications, preparation of managed labor and material bids, and energy savings verification and rebate documentation. He began his career as an Energy Conservation Project Engineer for KENETECH Energy Management, Inc.

DAVID S. MACINTOSH, P.E.
VICE PRESIDENT, OPERATIONS

PROFESSIONAL EXPERIENCE:

- 2006 – Present, Vice President of Operations, H2O Applied Technologies, Boston MA
- 2004 – 2006, Director, Engineering and Construction, Constellation Energy (formerly Cogenex), Lowell MA
- 2001 – 2004, Project Development Manager, Cogenex, Lowell MA
- 1997 – 2001, Senior Project Manager, Cogenex, Lowell MA
- 1988 – 1997, Manager, Engineering and Design, Select Energy Services (formerly HEC), Natick MA

CERTIFICATIONS/AFFILIATIONS:

- Licensed Professional Engineer
- Certified Water Efficiency Professional
- Association of Energy Engineers (AEE)
    - Past President/Board of Directors, New England Chapter
    - 2002 and 2005 Winner, Energy Project of the Year New England Chapter
- American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE)
- Awarded U.S. Patent *"Open Cycle Desiccant Air Conditioning Systems and Components Thereof"*
- Six Sigma Greenbelt

EDUCATION:

- BS, Mechanical Engineering, University of Massachusetts

David MacIntosh oversees H2O's engineering and construction field operations, from development and engineering through construction and post-installation. He is responsible for ensuring teamwork, good communication, top-quality project management and customer satisfaction throughout all project phases.

Mr. MacIntosh brings a strong technical engineering background and comprehensive experience in senior-level management to the H2O team. As Director of Engineering and Construction at Constellation Energy he created sales and marketing strategies and negotiated customer contracts in addition to overseeing Constellation's development, engineering and construction functions.

As Project Development Manager, Mr. MacIntosh was responsible for the development of Constellation's large, technically challenging projects. He began his career at Constellation as a Senior Project Manager responsible for facility surveys, feasibility studies, design engineering, and construction management, as well as supervision of engineering staff and selection of subcontractors and vendors. His projects included high efficiency chiller and boiler plants, water conservation systems, energy management systems, air handling systems improvements and industrial heat recovery systems in various North American locations.

While at Select Energy Services (formerly HEC) based in Natick, MA, Mr. MacIntosh directly supervised a group of project managers, engineers, drafters, on-site construction personnel and subcontractors in the design and implementation of complex energy and water conservation projects for large commercial, institutional and industrial customers.

Global Energy Services

Global Energy Services is a national full service turn-key energy saving company that specializes in Lighting Retrofits, Controls & Design, Water Conservation and Building Envelope. Global Energy Services is a seasoned industry leader with over 100 years' combined experience and expertise within our auditing/engineering staff and over 60 installers working in the field. We are currently serving customers throughout North America. We have experience dealing with Fortune 500 companies, Federal & Local Government Agencies, Healthcare facilities, schools, Universities, Municipalities and Correctional Institutions.

The following is a list of projects that Global Energy Services has implemented for GESA and Performance Contract:

Project Name	Owner/Performance Contract/Yrs	Owner Contact	State	Project totals
PA State Parks	**Energy Systems Group / 2018**		**PA**	**$1,486,922**
Description of Work: 24 Parks plus Exterior: This project is a Performance Contract – This was a complete LED lighting retrofit and/or new fixture replacement in conjunction with the Building Envelope and Water Conservation improvements throughout 24 different parks (interior and exterior lighting. Project is currently being installed now.				
Conewago School District	**McClure / 2018**		**PA**	**$557,274**
Description of Work: 5 Schools: This project is a Performance Contract – This was a complete LED lighting retrofit and/or new fixture replacement & occupancy controls throughout 5 Schools, including Elementary, Middle and High (interior and exterior lighting). Project was complete in 2018, except for the installation of new poles and area lights being completed in 2019.				
Mifflin School District	**McClure / 2018**		**PA**	**$924,392**
Description of Work: 10 Schools: This project is a Performance Contract – This was a complete LED lighting retrofit and/or new fixture replacement & occupancy controls throughout 9 Schools and an Administrative Building, including Elementary, Middle and High (interior and exterior lighting). Project was completed in 2018.				
Greensville Correctional	**Johnson Controls / 2018**		**VA**	**$481,354**
Description of Work: This project is a Performance Contract – The project consists of LED lighting retrofits and new fixtures throughout the exterior of the prison.				
Cumberland County Prisons	**Noresco / 2018**		**MD**	**$3,759,512**
Description of Work: This project is a Performance Contract – The project consists of lighting controls, and LED lighting retrofit and New Fixtures for the interior and exterior lighting for multiple locations across the state. Project beginning in December 2018.				

Statement of Readiness:
GES is completely ready to commit the services required for this unique project. GES has over 70 employees including installers, engineering and project management. We have the capacity and ability to complete the IGA audit, design and installation process needed to complete this project efficiently from start to finish on the following ECM's: Lighting.

Global Energy Services Statement of Diversity:

Global Energy Service, LLC Equality & Diversity Statement

The purpose of this policy is to provide diversity and equality to all in employment, irrespective of their gender, race, ethnic origin, disability, age, nationality, national origin, sexuality, religion or belief, marital status and social class. We oppose all forms of unlawful and unfair discrimination.

All employees, whether part time, full time or temporary, will be treated fairly and equally and with respect.

Selection for employment, promotion, training or any other benefit will be on the basis of aptitude and ability.

All employees will be helped and encouraged to develop their full potential and the talents and resources of the workforce will be fully utilized to maximize the efficiency of the organization.

Global Energy Services Experience Modification Rating:

January 1, 2019 - 2020	.76
January 1, 2018 - 2019	.64
January 1, 2017 - 2018	.67

(Attached PDF Insurance Doc's provided)

Global Energy Services Notification of Default / Debarment:

None / Not applicable

Global Energy Services Key Employees

- Frank Buchanan - Vice President, Building Envelope Division
  - Employed by Global Energy Services for the past 6 years
  - Responsibilities: Supervision of the Audit & Design Phase for the Building Envelope Division.
  - Frank spent 4 years in Electrical Engineering and 8 years as an Operations Manager in the Defense and Aerospace Industry.
  - Degree in Information Technology and Electronics
  - Member of the Association of Energy Engineers (AEE)
  - Member of the National Association of Energy Service Companies (NAESCO) and Illuminating Engineering Society (IES)

- Matthew Saboy – Vice President of Engineering
  - Responsibilities: Supervision of the auditing and design/engineering phase for the Lighting Division.
  - Over 13 years of experience in the auditing, design and implementation of over $100 million in energy efficient lighting projects. (Employed by Global Energy Services for the past 12 years)
  - Recognized by the Environmental Protection Agency as a: Surveyor Ally
  - Audited, Designed the Lighting portion of GESA – SCI Dallas Project
  - Member of AEE - Association of Energy Engineers & currently studying for CLEP & LC certification exams.
  - Member of NAESCO – National Association of Energy Service Companies.
  - Manufactures Design Training Certification: Lutron, Sensor Switch, GE, Sylvania, Phillips, Acuity and Cooper Lighting

- Roy Marshall – Vice President, Master Plumber
  - Responsibilities: Supervision of the audit / design / installation in the Water Division (construction) phase including but not limited to labor, safety, quality control, scheduling, logistics, and material/equipment procurement.
  - Over 20 years of experience in the plumbing/mechanical industry auditing, designing and installing water efficiency ECM's (Employed by Global Energy Services for the past 5 years)
  - Consulted and helped on the installation of Mock-ups on the Water portion of the GESA – SCI Dallas
  - Association of Energy Engineers: Certified Water Efficiency Professional

- Pat McKenzie – Vice President of Operations
  - Responsibilities: Supervision of the installation (construction) phase including but not limited to labor, safety, quality control, scheduling, logistics, and material/equipment procurement.
  - Over 25 years of experience in the electrical/lighting industry. (Employed by Global Energy Services for the past 7 years)
  - Project managed over $100 million in electrical/lighting projects.
  - Over 60 full time project managers, project coordinators and installers directly under his management.
  - Licensed journeyman for over 20 years

NOTICE OF SMALL BUSINESS SELF-CERTIFICATION
AND SMALL DIVERSE BUSINESS VERIFICATION

pennsylvania
DEPARTMENT OF GENERAL SERVICES

The Department is pleased to announce that

GLOBAL ENERGY SERVICES LLC

has successfully completed the Pennsylvania Department of General Services' process for self-certification as a small business under the Commonwealth's Small Business Contracting Program, and is verified as a Small Diverse Business with the following designation(s):

BUSINESS TYPE(s): **Construction Contractor, Procurement Services**

CERTIFICATION NUMBER: **348437-2013-01-SB-W**
CERTIFICATION TYPE: Woman Business Enterprise

ISSUE DATE: **01/14/2013** EXPIRATION DATE: **10/31/2020**

RECERTIFIED DATE: **10/12/2018**

Kerry L. Kirkland

Kerry L. Kirkland, Deputy Secretary
Diversity, Inclusion, and Small Business Opportunities

Subcontractor Qualifications

ZERO DRAFT
Central Pennsylvania

Similar Completed GESA Projects

- **Virginia National Guard**
  Multiple site, statewide projects correcting building envelope deficiencies
  Contract value: $700,000+
  Completed: 2011-2014

- **PA State Museum & LCB Building, Harrisburg**
  Corrected building envelope deficiencies
  Contract value: $112,535
  Completed: 2011

- **Reading Housing Authority**
  Multi-story building contract correcting building envelope deficiencies
  Contract value: $680,000
  Completed: 2012

Brian Johnson, Vice President/Superintendent

Project Responsibilities: Survey and estimate the job; scheduling and ordering materials

Time with Firm: 13 years

Experience with GESA projects: Surveyed, negotiated and managed over 70 GESA contracts for building envelope improvements

Education/Training: Bachelors in Civil Engineering, Associates in Architectural Technology; Formerly a Certified HERS Rater and Building Performance Contractor; Attendee at numerous building science workshops

Cole Johnson, Field Operations Manager

Project Responsibilities: Supervise field crew, quality control, daily timesheets, safety talk instructor

Time with Firm: 9 years

Experience with GESA projects: Field specialist on over two dozen GESA jobs throughout the Mid-Atlantic region performing building envelope improvements

Education/Training: Bachelors in Mechanical Engineering

Statement of Readiness and Commitment of Resources :

Zerodraft confirms that our company can commit the individuals above to this project at such time as services are required.

Experience Modification Rating: **2017** - .854 **2018** - .858 **2019** - .863

Notice of Default or Debarment

I hereby certify that Home Energy Solutions, Inc. (d/b/a Zerodraft Central Pennsylvania) is not currently under suspension or debarment by the Commonwealth of Pennsylvania, any other state or the Federal Government and has no history of default or debarment.

Zerodraft Central Pennsylvania is a Certified Disadvantage Business Enterprise and Small Diverse, Woman-Owned Business Enterprise

SDB Contact: Laurie Johnson, Owner/President
415 Dunkleberger Road
Mechanicsburg, PA 17055
(717) 241-4201

NOTICE OF SMALL BUSINESS SELF-CERTIFICATION
AND SMALL DIVERSE BUSINESS VERIFICATION

pennsylvania
DEPARTMENT OF GENERAL SERVICES

The Department is pleased to announce that

HOME ENERGY SOLUTIONS INC

has successfully completed the Pennsylvania Department of General Services' process for self-certification as a small business under the Commonwealth's Small Business Contracting Program, and is verified as a Small Diverse Business with the following designation(s):

BUSINESS TYPE(s): **Construction Contractor**

CERTIFICATION NUMBER: **329807-2014-08-SB-W**
CERTIFICATION TYPE: Woman Business Enterprise

ISSUE DATE: **08/11/2014** EXPIRATION DATE: **08/31/2019**

RECERTIFIED DATE: **7/26/2017**

Kerry L. Kirkland

Kerry L. Kirkland, Deputy Secretary
Diversity, Inclusion, and Small Business Opportunities