



VOLUME I - TECHNICAL SUBMISSION

*Response to Request for Quotes for a Guaranteed Energy Savings Project for the
Commonwealth of Pennsylvania Department of General Services at*

***Pennsylvania Department of Corrections
SCI Fayette - La Belle, PA***

*Project No. GESA 2020-1
Contract No. DGS GESA 2020-1*

***Tony Prelec, Account Executive
724.996.7970***

October 13, 2020



Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

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USB Includes a Full Copy of Volume I; and includes ESG’s Confidential Financial Reports



October 13, 2020

Becky Tomlinson
403 North Office Building
401 North Street
Harrisburg, Pennsylvania 17120

Subject: Response to Request for Proposals for a Guaranteed Energy Savings Project at SCI Fayette;
Project Number GESA 2020-1; Contract Number DGS GESA 2020-1

Dear Selection Committee Members:

Energy Systems Group, LLC, (ESG) is pleased to provide our response to the above-referenced Energy Savings Improvement Program to assist the Department of General Services and the Department of Corrections at SCI Fayette – Contract No. DGS GESA #2020-1. Vectren’s State of Pennsylvania Vendor Number is 406674. As a comprehensive and NAESCO accredited Energy Service Provider, ESG designs, develops, implements, operates, maintains and verifies innovative, customer focused energy and operation solutions that enhance our client partners’ facilities, productivity, comfort and finances so they can focus on meeting their core mission. ESG possesses all of the resources necessary to implement an energy performance contract project with SCI Fayette.

The ESG team offers a complete complement of staff members to develop and implement comprehensive energy efficient and guaranteed savings programs to assist various agencies in achieving mandated reductions in energy consumption. To ensure the strongest value and responsiveness, subcontractors such as mechanical, lighting and water conservation will be selected/bid for specific jobs. The enclosed proposal is for a hypothetical scope of work at estimated pricing with limited information about risks affiliated with the project site. The proposal is expected to lead to selection, an opportunity to prepare a full Investment Grade Audit with comprehensive site investigation, agreement on the actual scope of work, and price and schedule negotiation after ESG has had an opportunity to obtain pricing bids from subcontractors on the actual scope of work. A final, binding GESA Contract will require ESG’s internal parent corporation approvals consistent with standard corporate policy.

The primary point of contact for questions or notification regarding the submitted response is:

Tony Prelec, Account Executive
Email: tprelec@energysystemsgroup.com
Phone Number: 724.996.7970
Fax Number: 812-492-8541

The primary person(s) authorized to bind the company and conduct contract negotiations:

Steven D. Pride, Senior Vice President or Dan Shell, VP and General Counsel
Phone Number: 812-471-5000
Fax Number: 812-475-2544

Thank you for your time and consideration. We look forward to your acceptance of our proposal.

Sincerely,

A handwritten signature in blue ink that reads 'Steve Pride'.

Steven D. Pride
Senior Vice President

Appendix A – Quote Signature Page

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

I am authorized to sign this Quote on behalf of the Offeror and I agree and state that Energy Systems Group, LLC (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

Steven D. Pride
Print Name Legibly

Senior Vice President
Title

Appendix B - Non-Collusion Affidavit

NONCOLLUSION AFFIDAVIT

DGS Project Number: GESA 2020-1

State of Indiana :

County of Warrick : s.s.

I state that I am the Senior Vice President (Title) of Energy Systems Group, LLC (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. Energy Systems Group, LLC (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:
NOT APPLICABLE

I state that Energy Systems Group, LLC (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.

Steven D. Pride
(Signature)

Steven D. Pride
(Signatory's Printed Name)
Notary Public
Senior Vice President
(Signatory's Title)

SWORN TO AND SUBSCRIBED
BEFORE ME THIS 4th DAY OF
October, 2020.

Rachel Diane Petersen

My Commission Expires June 27, 2026



Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project

EXECUTIVE SUMMARY

Energy Systems Group (ESG) is pleased to submit this proposal in response to the SCI Fayette Request for Quotes issued by PA DGS for a guaranteed energy savings agreement (GESA) project.

ESG has a management team which has many years of experience implementing Guaranteed Energy Savings Projects within Correctional Facilities and we understand the importance of having SCI Fayette up and running on their own standalone heating plant by the end of 2021.

The information in this proposal will show **why** ESG is the leader in customer satisfaction and how we set ourselves apart from the competition. Our value is manifested in having the best expertise, financial strength, and long term dependability. But most importantly, our track record shows our commitment to forming long-term partnerships with our customers, helping them meet infrastructure and environmental goals and standing behind our workmanship 100%.

ESG at a Glance

- Award Winning, Full-Service ESCO
- NAESCO-Accredited Energy Service Provider (ESP)
- Leading Utility Energy Service Contract Partner
- U.S. Department of Energy (DOE) Qualified ESCo
- U.S. DOE Super ESPC-Approved Contractor
- U.S. Army Corps of Engineers Qualified ESCO



Since 1994, Energy Systems Group (ESG) has implemented over 730 energy efficiency and facility infrastructure improvement projects totaling over \$3.3 Billion for more than 440 Customers in 39 States. ESG is licensed in 48 States.



Our growth and expansion comes as a result of our dedication to project completion — not just with an “on-time and on-budget” mentality — but with a foundational business philosophy and a consistent objective of overachieving to provide exceptional value and results that translate into the highest level of customer satisfaction and deliver the greatest possible benefits to each of our Customers.

Another important factor contributing to our success is the fact that ESG routinely matches our project team and their capabilities and experience with each specific type of project.

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

ESG has extensive experience working in Correctional Facilities and we are very excited that we were able to develop a budget-neutral project which **fully pays for itself in five years** for SCI Fayette. The GESA project includes all the Base ECM's outlined in Appendix S, as well as some additional ECMs which we understood the staff at SCI Fayette would like included in the Base Project.

Per the guidelines of the RFQ, ESG was also able to develop a Secondary larger GESA Project for PA DOC consideration, which includes Energy Related Cost Savings and 4 additional larger ECMs. This larger GESA Project also, **fully pays for itself in five years** and produces a relatively large Net Present Value over the 18 year projection illustrated in our cash flow.

Note: ESG intends to utilize either CJL Engineering or Entech Engineering as our Design Consultant on SCI Fayette, dependent on whether one or the other might be selected as the DGS Energy Consultant for the project.

Statements Regarding RFQ Requirements

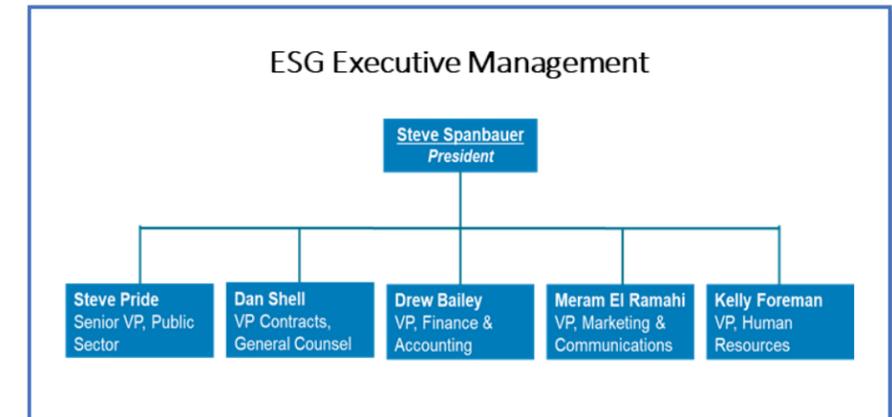
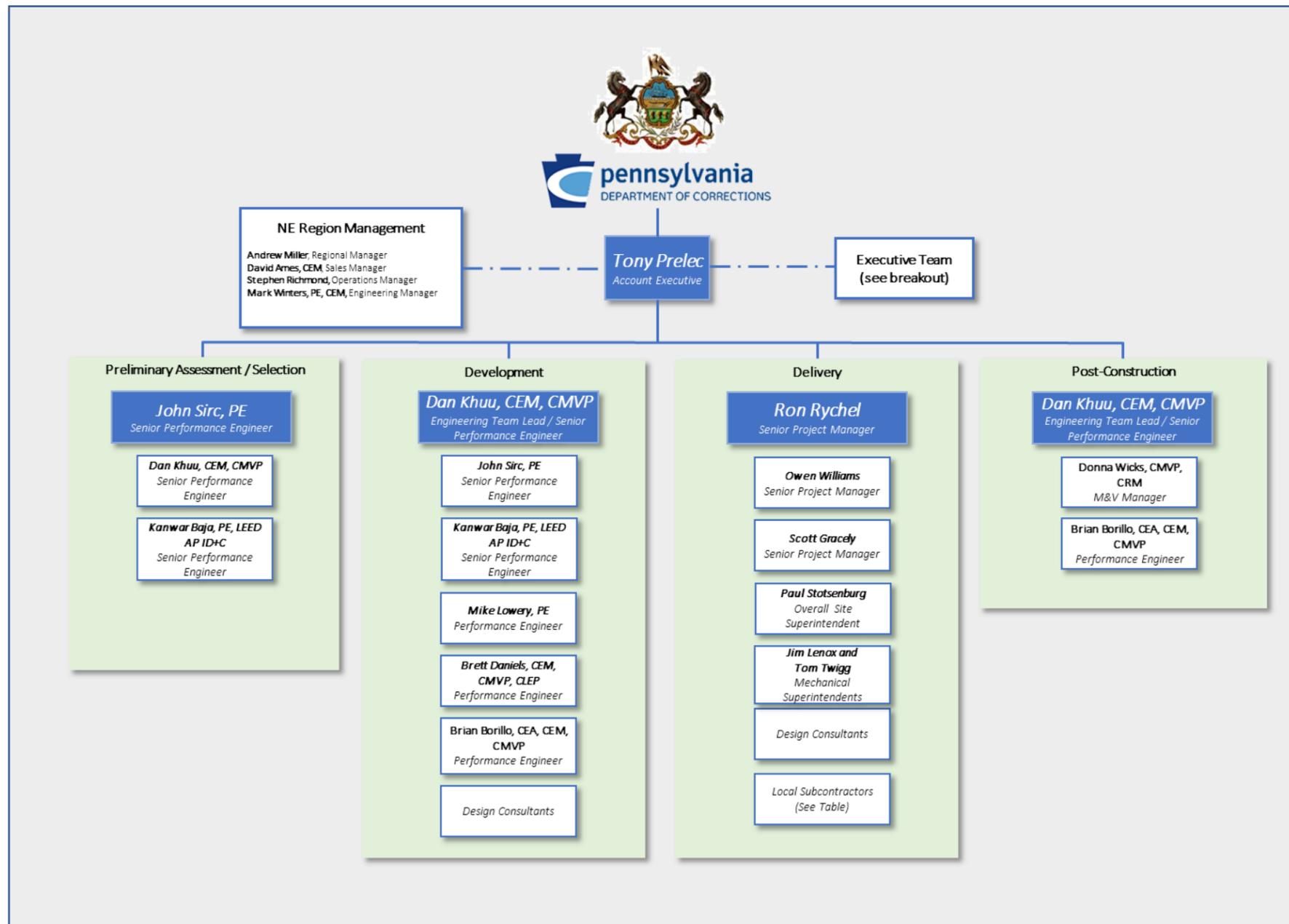
- Energy Systems Group (ESG) has received and acknowledged all three (3) bulletins released by PA DGS pertaining to the SCI Fayette RFQ.
- ESG has not included any cost information (ECMs and construction cost or energy savings) in the SCI Fayette Technical Submission
- ESG has not labeled any portion of our proposal as proprietary or confidential
- The total energy savings project in our ESG final scope of work will be at least 95% of the savings projected in the Quote, and the actual ECM costs shall be within 10% of the costs listed in the CEA/IGA, and the Base project will be self-funded from energy savings over the term of the project, in this case 5 years.
- Our sample RFQ Project schedule should not be construed as the final CPM schedule
- The Energy Consultants service fees are included in our project cash flow
- Measurement and Verification Services are included in the first three years of the project

Our team spent a considerable amount of time talking with SCI Fayette staff to fully understand the needs and desires most important to the staff, and the PA Department of Corrections, relative to this SCI Fayette GESA project. We feel our proposed GESA project addresses all the important issues brought to our attention by the SCI Fayette staff and hope that PA DGS and PA DOC will select Energy Systems Group as the ESCO of choice for this Corrections project.

Thank you for this opportunity to once again serve the Commonwealth of Pennsylvania, PA Department of Corrections and PA Department of General Services. We look forward to your acceptance of our proposal.

2-5.1 Project Management Team Overview

A. Organizational Chart



ESG SUBCONTRACT RESOURCES		
Firm	Work Scope	Pennsylvania Certifications
Air Management	Mechanical	SB, SDB, VBE
BERT	Plug Load Controls	
CJL Engineering	Engineering	
Conexus	BMS/Controls	SB
Entech	Engineering	
Global Energy Services	Lighting, Water, Building Envelope	SDB
H2O Applied Tech	Water/Steam Traps/Insulation	SDB
ICS	Water/ICON	
Lighting Services Inc. (LSI)	Lighting	SDB
Melink	Kitchen Hood	
Powersmiths	Transformers	
SPMcCarl	Mechanical	SDB
Zerodraft	Building Envelope	SDB

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B. Offeror described the assignment of responsibilities for major tasks, the interrelationship and management structure of the overall Team, including history or working relationship between Offeror and selected subcontractors on GESA projects, and the process utilized in selecting subcontractors.

ESG's philosophy around winning, developing, delivering, and providing post-construction services to our clients centers around one team providing superior solutions. Below is a list of the Energy Systems Group (ESG) Core Team Members that are directly or indirectly responsible for different aspects of Energy Performance Contracting Services for the SCI Fayette, GESA 2020-1 project. The same Core Team Members recently completed two successful GESA projects for the State of Pennsylvania.

Assignments of Core Members

Key Personnel	Responsibility for Major Tasks	Interrelationship and Management Structure
Tony Prelec <i>Account Executive</i>	Main point of contact for PA DOC and DGS throughout the life of the project – from selection through post-construction services. Tony helps ensure the project developed meets SCI Fayette's needs. He is responsible for handling all the necessary information needed for the execution of the GESA agreement.	Works with each discipline to ensure ESG provides highest value project. Reports to sales manager.
Andrew Miller <i>General Manager</i>	Andrew is responsible for the performance of all disciplines within the ESG Northeast Region.	Oversees and manages each discipline manager. Reports to Senior Vice President.
David Ames <i>Sales Manager</i>	David works with Tony Prelec to ensure ultimate client satisfaction. He remains involved in all key facets of the project but particularly development, delivery and post-construction services.	Works with Account Executive. Coordinates with other discipline managers and the team leads. Reports to General Manager.
Mark Winters <i>Engineering Manager</i>	Assigns engineering team members and provides high-level management of engineering team throughout. Ultimately responsible for quality and thoroughness of IGA and design.	Works with other discipline managers to ensure coordination and continuity. Reports to General Manager.
Steve Richmond <i>Operations Manager</i>	Overall project delivery responsibility. Steve ensures project management team delivers on the scope developed in the IGA. This is done by clear and complete transition of engineering development and design efforts, thorough pre-qualification of subcontractors, and an eye to detail regarding other key aspects of project management such as scheduling and safety.	Steve works with the other regional managers to ensure continuity and coordination. He reports to the General Manager.
Dan Khuu <i>TEAM LEAD - Senior Performance Engineer</i>	As Team Lead for PA, Dan works in a double role to first ensure the engineering aspects of the project are staffed with the appropriate personnel and then as a development and design engineer lead reviewing the team's work.	Dan works with the account executive and his team. He reports to the Engineering Manager.

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Key Personnel	Responsibility for Major Tasks	Interrelationship and Management Structure
John Sirc <i>Senior Performance Engineer</i>	Identified and qualifies potential Energy Conservation Measures (ECMs) to present to SCI Fayette for consideration. After initial qualification of measures with SCIM, John further develops the ECMs for final consideration in the IGA. He also performs design and review, commissioning and M&V plan development.	John works with the design team and Tony Prelec to optimize project for SCI Fayette. He reports to the Engineering Manager.
Kanwar Bajaj <i>Senior Performance Engineer</i>	Provides initial Energy Utilization Index (EUI) for the project development team to use in guiding their efforts. They are also involved in IGA development work, design, peer review, commissioning and diagnostic testing, M&V and warranty services	Kanwar will work with the design team and Tony Prelec to optimize project for SCI Fayette. They report to the Engineering Manager.
Ron Rychel <i>Senior Project Manager</i>	IGA work, procurement, project management, construction management, training, post-construction support and warranty services	Ron interacts with engineering team, site PM, Site Construction Superintendent and subcontractors. Reports to Operations Manager.
Scott Gracely <i>On-Site Project Manager</i>	Procurement, construction management, training, post-construction support and warranty services	Interacts with Sr. PM, SCI Fayette, Site Superintendent and subcontractors. Reports to Senior PM and Operations Manager.
Paul Stotsenburg <i>Site Superintendent</i>	Construction management, training, and warranty services.	Paul interacts with SCI Fayette, all subcontractors, as well as the on-site project manager. He reports to the Senior Project Manager.

The core project team members assigned to this SCI Fayette GESA project have an outstanding track record of implementing Pennsylvania Guaranteed Energy Savings Act projects together. The SCI Dallas project completed by this project team was completed on time and the customer is completely satisfied with all Energy Conservation Measures implemented during the construction process. ESG also exceeded our Guaranteed Energy Savings commitment in Years 1 and 2 by a substantial amount.

SUBCONTRACTOR SELECTION

Our ESG team has worked with some extremely talented subcontractors, several of which we intend to utilize for specific ECMs on the SCI Fayette project. ESG strives to utilize highly-qualified Small Diverse Business and Veteran Owned firms where possible. ESG has utilized SDB subcontractors such as Lighting Services Inc., Zerodraft, and Air Management Inc., on past projects including DCNR Western Region GESA and we are confident that they will accomplish their assignments in a timely and cost effective fashion and fully stand behind their work. The majority of our subcontractors we have used in the past have their current up-to-date Small Diverse Business and/or their Veteran Owned Business certification from the Commonwealth of Pennsylvania. Safeguarding our employees, clients, and subcontractors is paramount. To help enable this, ESG employs a three-step process to select only the most qualified subcontractors with a proven ability to perform safely. Each of these steps is facilitated by our Project Procurement Manager during the subcontractor bidding process. All safety evaluations are reviewed by ESG's Safety Manager. The three steps followed to screen subcontractors is listed in the following table:

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Step One	Step Two	Step Three
We evaluate each potential subcontractor on a combination of safety metrics, including EMR (<1.0), OSHA statistics (DART), total recordable incidence rate (TRIR), and recorded violations. We thoroughly review potential subcontractor safety records during the vetting process documented through customer references and positive results on the OSHA website.	We ask each subcontractor to complete a safety questionnaire that covers numerous potential safety issues that could be encountered during construction. We use these results to help determine if the subcontractor has the necessary understanding of the possible risks that could be encountered on the job site. This questionnaire is also used to give us an indication if the subcontractor is sufficiently prepared to work safely on a customer site.	We ask for and review each potential subcontractor's safety programs to ensure they have adequate training and the ability to address and work safely in workplace hazards. For example, if we anticipate the subcontractor will be working in a confined space and will need the necessary permitting, we will ensure they have the proper program and internal support structure to perform the necessary tasks.

CI. Offeror described assignment of responsibilities for various Project tasks for this Project to specific individuals.

With billions of dollars in GESA projects completed, ESG has unparalleled experience in developing and delivering highly successful projects for our clients. One key facet is our clear and concise assignment of responsibilities. Following is a table illustrating specific personnel who be assigned these responsibilities for the SCI Fayette project.

TASK / TEAM MEMBER	Tony Prelec	Andrew Miller	David Ames	Mark Winters	Steve Richmond	Dan Khuu	John Sirc	Kanwar Bajaj	Ron Rychel	Scott Gracely	Paul Stotsenburg	Brooke Lawrence
Preliminary Assessment & Selection												
Energy Utilization Index				✓		✓	✓	✓				
Preliminary Audit	✓		✓	✓	✓	✓	✓	✓				
Identifying Initial ECMs	✓		✓	✓		✓	✓	✓				
Initial Cost Estimating	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	
Preliminary Savings Calculations	✓			✓		✓	✓	✓	✓	✓	✓	
Preliminary Cash Flow	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Initial Scope Writeup	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Development												
Energy Utilization Index		✓		✓		✓	✓	✓	✓	✓	✓	
IGA	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Scope Writeup	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Final Cost Estimating	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Savings Calculations	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	
Cash Flow	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Delivery												
Subcontractor Selection	✓	✓			✓	✓	✓	✓	✓	✓	✓	
Project Management		✓			✓				✓	✓	✓	
Subcontractor Oversight		✓			✓				✓	✓	✓	
Training		✓			✓	✓	✓	✓	✓	✓	✓	
Schedule	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	
Post-Construction												
Measurement and Verification		✓		✓	✓	✓	✓	✓	✓	✓	✓	
Operations & Maintenance Support	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	
On-going Training	✓				✓				✓	✓	✓	

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C2. Offeror provided percentage of time key personnel will be assigned to this Project

ESG has had great success staffing projects of similar size and scope according to the percentages of time listed below for key individuals:

Percentage Of Time Assigned by Name and Role			
Ron Rychel, Senior Project Manager (1)	70%	Partners, Mechanical (&) Electrical Engineers (2)	25%
Owen Williams, and/or Scott Gracely, Site Project Manager (2)	100%	Tony Prelec, Account Executive (1)	35%
Steve Richmond, Operations Manager (1)	30%	Greg Luff, Manager EHS (1)	20%
Tom Twigg, Mechanical Superintendent (1)	30%	Donna Wicks, M & V Specialist (1)	10%
Jerry Elmlad, Corrections Specialist (1)	40%	Subcontract Partner Superintendents	60%
Dan Khuu, John Sirc, Kanwar Bajaj, Senior Performance Engineers (3)	75%		

C3. Offeror described ability to manage construction, repairs, regular service and emergencies effectively.

The key to our ability to effectively Manage Construction, Repairs, Regular Service and Emergencies is our attention to detailed project management. This project will likely have varied and diverse scope and magnitude and may consist of implementing several measures in one building, implementing a variety of measures in many buildings, or applying an individual ECM throughout numerous buildings. Our dedicated project manager and detailed protocols mitigate risk and ensure a safe, on-time delivery of the project.

- To Manage Construction effectively we need to have an overall understanding of main priorities and goals of PA DOC and SCI Fayette associated with the implementation of the GESA project. ESG implements a detailed MS project schedule that provides an overall project blueprint of all locations and activities to complete a project. Next we breakdown that overall schedule into manageable sections. A 6 week look-a-head schedule provides a past, present, and future schedule of activities in condensed time frame. Project work plans provide a 2 to 3 week detailed outlook of specific installation areas and information to coordinate installation activities, including escort requirements, with SCI Fayette facility staff and security. ESG provides a custom project summary with all activities to complete the project in an excel format to track project percentage complete. ESG delivery team has on going communication with the facility to assure all onsite coordination during the duration of the project.
- Repairs and regular service are coordinated through the ESG project management team during the installation. Once the installation is complete and operational, and O&M information is provided, warranty requests and warranty service is performed in a proactive manner by ESG project management team coordinating repairs and regular service through our subcontractors and the facility staff and security. ESG has developed a Warranty Request Document which is utilized to document, address and verify corrective work procedures under and aggressive timeline for immediate resolution.
- Emergencies: During construction and warranty periods, if an emergency were to occur, the ESG project manager is available 24 / 7 / 365 to be on-site and should be contacted by SCI Fayette personnel to help facilitate proper handling and coordination of resources to ensure a quick response. At ESG, our project manager provides a single point-of-contact for all contracts, carrying out the responsibility for the implementation phase of the project. Given the projected size and scope of this project. The project manager will work closely with the PA DGS and SCI Fayette on-site designated representatives. ESG will develop a protocol specific to the SCI Fayette facility and in conjunction with DGS representatives concerning response to emergencies. ESG, will develop a contingency plan specific to the SCI Fayette facilities, which will address specific types of emergencies that could be encountered during the project. This will allow us to effectively address any situation, which may arise.

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Response to Request for Quotes for a Guaranteed Energy Savings Project

2-5.2 Work Plan for This Project

ESG’s work plan for SCI Fayette’s proposed project is described below. Our proposed Base project includes the further development and installation of all five (5) Core Energy Conservation Measures (ECMs) defined by the RFQ and includes 10 additional ECMs. Furthermore, utilizing additional Energy Related Savings, our Second Cash Flow project addresses four (4) additional ECMs for consideration that further enhance the project’s overall economic, technical, and environmental benefits. A complete listing of our proposed Base project ECMs, and our Second Cash Flow project are presented within the table below.

ESG Base and Second Projects - Proposed ECMs

ECM #	Description	ESG Base Project	ESG Second Project
ECM #1	Install New Boiler(s) in Existing Boiler House	✓	
ECM #2	Replace Absorption Chillers with Electric Chillers	✓	✓
ECM #3	Replace Existing Trane and Siemens Controls with a completely new state of the art Building Automation System (BAS)	✓	✓
ECM #4	Interior and Exterior Lighting Replacement to LED	✓	✓
ECM #5	Water Conservation Measures	✓	✓
ESCO #1	Propane Blending Station	✓	✓
ESCO #2	Kitchen Exhaust Hood Controls	✓	✓
ESCO #3	High Efficiency Transformers	✓	✓
ESCO #4	Walk-In Box Controls	✓	✓
ESCO #5	Building Envelope Improvements	✓	✓
ESCO #6	Retro-Commissioning	✓	✓
ESCO #7	Electric Vehicle (EV) Charging Stations	✓	✓
ESCO #8	New Sheet Metal / Welding Shop	✓	✓
ESCO #9	Correct The Ventilation Issues in the Dietary Area and “K” Block Bathrooms	✓	✓
ESCO #10	Replacement of the Split Air Conditioning Systems that serve the Housing Unit Control Rooms	✓	✓
ESCO #11	Replace the Steam Boilers ECM #1 with High Temperature Hot Water Generators		✓
ESCO #12	Replace the Existing HTHW Distribution Pumps, Chilled Water & Condenser Water Pumps, Variable Frequency Drives & Instrumentation		✓
ESCO #13	Replace the Existing Cooling Towers		✓
ESCO #14	Refurbishment of the Institution’s Air Handling & Rooftop Units		✓

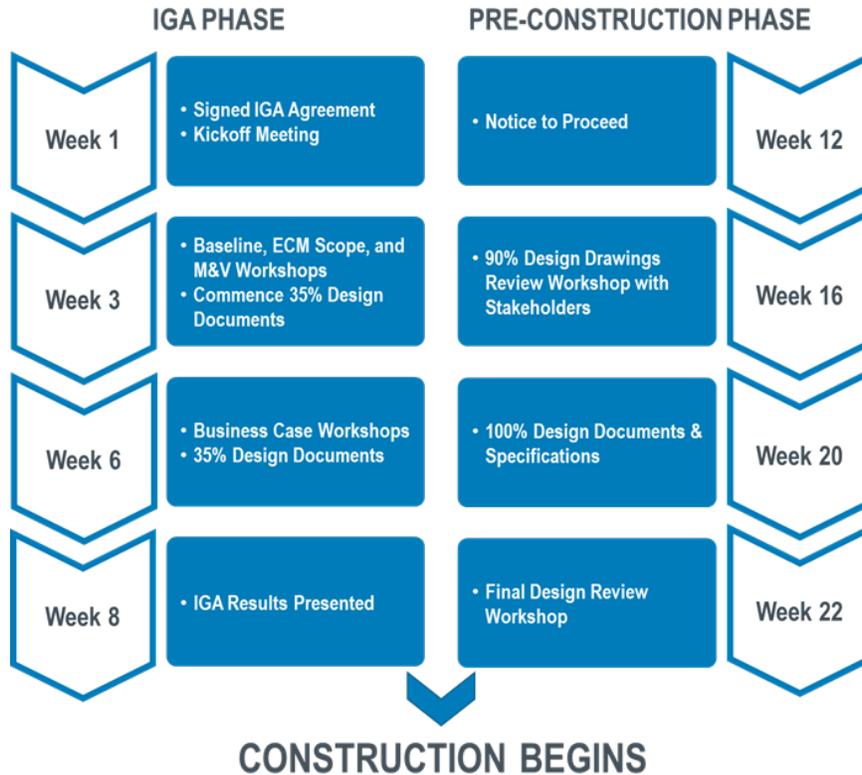
For proposal purposes, our Work Plan describes the steps necessary to successfully implement these Base Project ECMs, from GESA Contract execution through completion of construction, including commissioning and other post-construction services.

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1. Offeror demonstrated thorough understanding of the design process

Having performed several GESA projects for the State of Pennsylvania Department of Corrections, Energy Systems Group is quite familiar with the GESA Project Design Manual along with working conditions in Pennsylvania correctional facilities. A very successful approach to the work plan and design process, which we have utilized with great success on the SCI Dallas GESA project and the Western Region DCNR GESA, consisted of the following steps:



In the case of SCI Fayette, some of steps above can be accelerated if all parties agree, so that we can have the new heating plant up and running before the Fayette Thermal agreement ends in February 2022.

ESG intends to partner with either Entech Engineering or CJL Engineering as our design consultant, dependent upon whether one or the other is selected as the DGS Energy Consultant for the SCI Fayette GESA project. Both CJL Engineering and Entech Engineering have offices in Western Pennsylvania within an hour of SCI Fayette. CJL is an engineering and design firm based in Johnstown, Pennsylvania with an excellent background in MEP design. Entech Engineering is based in Reading, PA and we have used them on a previous GESA project, SCI-Dallas, with great success. ESG will utilize our chosen Design Consultant (Entech or CJL) to prepare 35% design documents and specifications of critical mechanical components, to be provided as part of the IGA submission to the Commonwealth for review. After the contract execution and the issuance of the NTP, we will utilize our chosen Design Consultant and our internal Engineers to develop and complete construction-ready design and specification documents (100% design documents) for large mechanical/HVAC ECMs. For ECMs requiring like-for-like equipment replacement, ESG engineers will complete the necessary documents in house and provide them to PA DOC, DGS, DGS's Energy Consultant and PSFEI for their review and approval.

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2. Offeror identified potential design issues

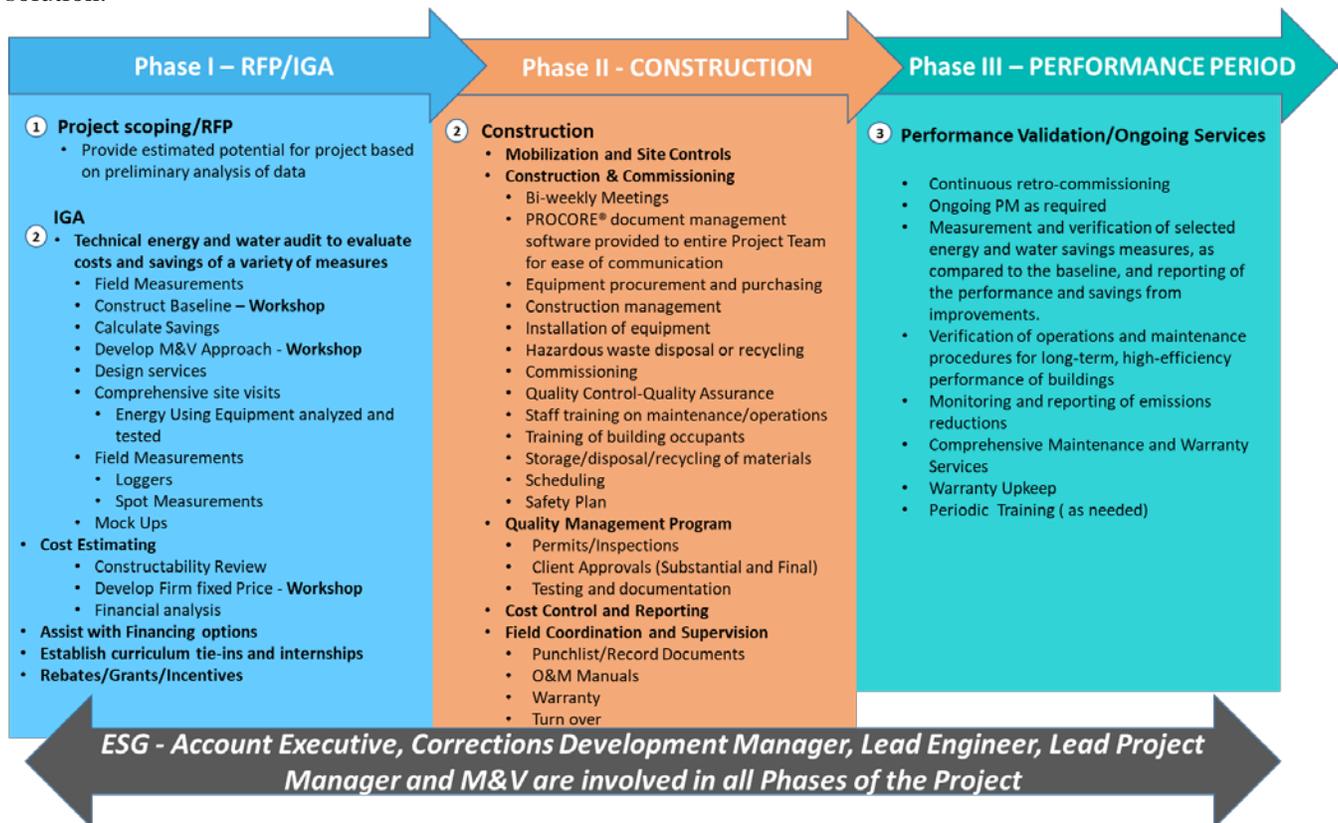
Some key design issues which ESG has identified and has prepared creative approaches to mitigate:

Design Issue	Mitigation
Working within a corrections environment	Keep the design simple – DOC’s mission is not to spend excessive man-hours on equipment repair or addressing issues with complicated, high maintenance systems
The selection of the “right” equipment that will maximize energy savings for SCI-Fayette and allow for the procurement of that equipment and the completion of the new steam plant prior to the end of the DOC-Fayette Thermal agreement	As addressed in our schedule narrative, ESG will install a new steam flow meter that will allow 2 to 3 months of real time steam consumption flow data during the winter months which will be the peak post-ESCO project demand period
Installing new boilers in close proximity to existing boilers in the Central Plant and making them “fit” within the existing building available space	Ensuring that the equipment is not oversized for the demand
Determining the most effective manner to make the necessary piping changes for the proposed heating system minimizing downtime to the Institution as it relies on the heating system for domestic hot water and the steam for the Kitchen	Experienced design and construction team that recognizes the impact to the Institution and proper communication during the design phase with SCI-Fayette to ensure that what is proposed works for SCI-Fayette
How to integrate the Siemens and Trane control systems with the proposed DDC control system while still allowing SCI-Fayette to operate both systems simultaneously and on a daily basis	Close communication with SCI-Fayette and the ESG subcontractor to ensure seamless and timely transition without impact to the Institution or its operating systems
Lighting Levels need to meet the ACA and security requirements	Measurements of that existing and that required to ensure proper light levels are satisfied
Enhancing the operation of heating, ventilation and air conditioning, and associated control systems in a fully occupied Corrections facility	Communication with SCI-Fayette to identify existing problems and issues with the existing HVAC systems and if the utilization of the space has changed from its original design to incorporate any necessary modifications to meet the new utilization
Identifying and enhancing the operational efficiency of other energy-using devices	Complete and accurate survey of the Institution to identify and address possible energy reduction opportunities
Identifying and fully developing cost savings strategies, such as fuel switching, demand-side management, on-site generation, utility bill auditing, utility rate changes, and distribution upgrades.	Examination of complete utility invoices, the desires of DOC and a complete analysis of if those opportunities exist (and at what cost/savings to DOC)

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3. Offeror described how the Team will manage and execute the project

Clear and on-going communication will be a key managing and executing the project. The communication will start during the RFP process. Below summarizes the phases of your project and ESG's responsibilities for each phase. Of note is the consistent involvement of ESG's Account Executive, Correctional Development Manager, Lead Engineer, Lead Project Manager and M&V analysts through all phases of your project. We believe in continuous communication and included workshops and meetings during all phases to insure all members of the Project Team are aware of current efforts and any potential risks so that we can all work towards a collaborative solution.



Managing any potential risks is a key portion of managing the overall Project. Once the areas of risk are all identified a risk mitigation plan will be developed and become part of the construction process. Plan steps include:

- Evaluate the risk causes, interactions (inmates, escorts, staff safety and security) and probability
- Identify the impact of the individual risks and their combined impact
- Prioritize the risk items based on their potential impact on schedule and cost
- Identify risk mitigation steps and costs

This risk mitigation methodology has proven in the past to work well on previous DOC projects. ESG believes that identifying the risks early is key to developing a plan to overcome them.

4. Offeror identified early construction packages, long lead items and phases of construction

With an eye towards completing a new heating plant before the expiration of the existing Fayette Thermal agreement, ESG has identified two of the five core ECMs as the most critical and challenging ECMs to complete for SCI Fayette. With ESG's correctional team fully dedicated to the SCI Fayette project, the Commonwealth of Pennsylvania can rest assure that the development, design and project delivery will be handled correctly, timely and within all policies and procedures of the DOC. This shall also include the understanding of ordering equipment and materials to allow scheduling of projects to be done seasonally as needed and to fully conform to SCI Fayette's operational needs.

The following list of core ECM's are critical to the operation of the facility and need to be ordered in advance, scheduled to arrive on site at the precise scheduled time to enable the scheduled professionals to be onsite for the construction (and all in a manner which will be the least intrusive to the facility).

- **ECM #1** Install new boiler(s)
- **ECM #2** Replace absorption chillers with electric chillers,
- **ECM #3** Modify or replace building automation systems (BAS),
- **ECM #4** Interior and exterior light replacement to LED,
- **EMC #5** Water conservation measures.

For all ECMs, ESG will provide submittals for DGS's Energy Consultant to review and approve. Long lead items will be identified during the IGA and submittals phase, and 35% design packages will be prepared for DGS' Energy Consultants for approval in an expedited and timely manner. The construction phase begins after submittal review and approval process to allow all material and equipment to be ordered and phased in as desired by SCI Fayette. Our basic design build approach is listed in the adjacent graphic. The timing for each Energy Conservation Measure (ECM) shall be defined within the implementation schedule.

ESG cannot overstate our excellent track record with developing and completing projects in correctional facilities in the time allocated by our clients. We focus on both understanding how we are impacting the facilities working and living environment, completing tasks within the timeframe of the construction period in a minimally invasive manner. ESG prides itself on being very flexible, understanding facility needs and being innovative, which mitigates issues that could potentially impact all phases of the construction and project completion. Below is a table indicating Base ECMs and additional ECMs identified by ESG along with the estimated lead times, which illustrates the longer lead time items in descending order.

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Proposed ECMs	Critical Material & Equipment	Estimated Lead Time
Install back-up propane air mixing station	Propane equipment, piping, valves	10-12 weeks
Replace absorption chillers with electric chillers	Chiller, piping, valves, controls	10-12 weeks
Install new boiler(s) in existing Central Utility Plant	Boiler, piping, valves, burners, controls	8-16 weeks
Replacement of the cooling towers and HTHW, CW and CHW pumps, VFDs and controls (they are prepackaged skids)	Cooling tower, pumps, VFDs and controls	8-12 weeks
Water conservation	Fixtures, ICON controllers, valves	6-8 weeks
Replace transformers	Transformers, wiring	6-8 weeks
HVAC system upgrades	RTUs, AHUs, FCUs	2-16 weeks (depends on manufacturer, time of year and type of equipment)
Replace existing DDC systems (Siemens and Trane)	DDC controllers, equipment and sensors	4-6 weeks
Kitchen hood controls	VFDs and controls	4-6 weeks
Install EV charging stations	Charging station	4-6 weeks
Perimeter lighting	LED fixtures	4-6 weeks
Interior and exterior lighting upgrade to LED	LED fixtures and lamps	2-6 weeks
Walk-in controllers	Controls	2-4 weeks
Refurbishment of AHUs and RTUs	Sealant, belts, sheaves	2-4 weeks
Weld/Sheet Metal Shop located near the warehouse	Building material	2-4 weeks
Building Envelope Upgrades	Weather-stripping, caulking, insulation	2-4 weeks
Retro-commissioning/air and water balancing	Immediate	Immediate
Upgrade Entrepreneurial Training/Educational Programs	N/A	N/A

After the IGA acceptance by DGS and DOC as well as execution of the GESA contract, ESG will:

- Issue contracts to our partners
- ESG will order long lead time equipment
- Provide ECM 35% design specifications and drawings to the Energy Consultant
- Meet with SCI Fayette security team
- Arrange kick-off meetings with each key subcontractor
- Conduct detailed safety and security meetings with all employees and subcontractors
- Order construction trailer and necessary mobile equipment

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- Designate final laydown areas with DOC and the SCI Fayette staff
- Discuss proposed final work schedule with SCI Fayette staff and security
- Determine number of daily escorts required based on schedule
- Review hazardous material log book and confirm if any abatement will be necessary
- Acquire final ECM Design documents and drawings from the Energy Consultant
- Begin the actual Energy Conservation Measures based on the agreed upon schedule
- Conduct weekly safety and progress meetings with SCI Fayette and our subcontractors
- Complete all ECM's in a timely fashion
- Commissioning of all systems
- Provide detailed staff training for the SCI Fayette staff on all systems and equipment
- Develop final turnover O & M manuals for all systems and equipment
- Review standard manufacturer warranties of all installed equipment
- Turnover the project to PA DOC and confirm that all work has been implemented to their satisfaction

5. *Offeror demonstrated understanding of critical material and equipment and why they are critical, timing/lead times for acquisition and how they will be managed*

For the proposed ECMs, the critical long-lead items are special order mechanical system components, such as Boilers, Chillers and/or Deaerators. We expect the lead times for these components to be 8-16 weeks. The mechanical system components are critical because:

- Per Bulletin #3, the agreement with Fayette Thermal expires in February 2022. Therefore, it is imperative that the new steam plant be completed by the end of 2021 to allow for proper commissioning and testing, including stand-by and back-up equipment.
- The replacement chillers, along with any other modifications to the chilled water/condenser water systems, must be completed including testing and commissioning, if possible, by April 2021 to allow operation for May 2021.
- The testing of distribution pumping and controls strategies are contingent upon being able to place the large mechanical components in a timely manner. Any delay in releasing or ordering mechanical equipment would impact and extend the overall project schedule.
- The HTHW and chilled systems need to be operational to perform water balances to ensure that proper water flows are available at all buildings as necessary.
- The propane mixing station must be sized and completed in place at or prior to the completion of the steam boiler plant to ensure that fuel switching can be properly commissioned and the boilers tested on the propane back-up system.
- If DOC opts to go with ESG ESCO #11 ECM, the Replacement of the Steam Boilers ECM #1 With High Temperature Hot Water Generators, the local 100 bhp steam boiler system that serves the Kitchen must be fully operational prior to steam being disconnected.
- Lighting, water and building envelope materials are generally available in 2 to 6 weeks.
- Remaining ECM equipment that is not seasonal will be ordered after approvals and installed based on the approved escort and implementation schedule.
- Special order equipment with long lead times (e.g. boilers and chillers) will be expedited in the submittal process.

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In the preparation of our proposed schedule, ESG has reviewed the various lead times with our selected suppliers, suppliers that we believe best “fits” into a Commonwealth facility. For example:

- The Miura boilers at the Central Utility Plant have been used for at least the last 10 years.
- The Unilux HTHW boilers, if eliminating the steam is desired by DOC, are the same boilers being used at SCI-Forest.
- The proposed Smardt chillers were used at the Capital Complex in Harrisburg.
- The DDC system proposed is not only an open protocol system but currently being installed by ESG at SCI-Muncy.

As we have conveyed, ESG intends to install new steam and chilled water meters in the existing piping during the IGA phase to determine the true steam load of the Institution and to verify the selection of the chillers. This will allow the steam boilers to be submitted for approval and ordered prior to the issuance of the 100% drawings which will allow sufficient time for their procurement. With the chillers, the flow meters will confirm that the proper sizing selections have been made and, if necessary, adjustments to those sizes can be made prior to equipment release.

During the design process, ESG will work hand-in-hand with these key equipment suppliers along with the DDC contractor to address issues to ensure seamless transitions from that existing to new. Such activities will be presented in our detailed project schedule and can be tracked during our biweekly meetings/calls.

Such selections enables DOC personnel to offer “in-house” advice and assistance within DOC. Ultimately, this will assist SCI-Fayette in the operation and maintenance of the Institution while offering the sharing of real world experiences within the DOC system.

Additionally,

Since Energy Systems Group has a vested interest in the complete success of this project, DGS can be assured of the following:

- Materials and equipment will be correctional grade and their selection based upon life-cycle costs rather than initial acquisition costs.
- Energy Systems Group will make every effort to standardize the products to reduce SCI Fayette’s operations and maintenance burden.
- Every product or application associated with this project will meet applicable standards, such as ASHRAE's guide for equipment efficiencies, or Illuminating Engineering Society guidelines for lighting standards.

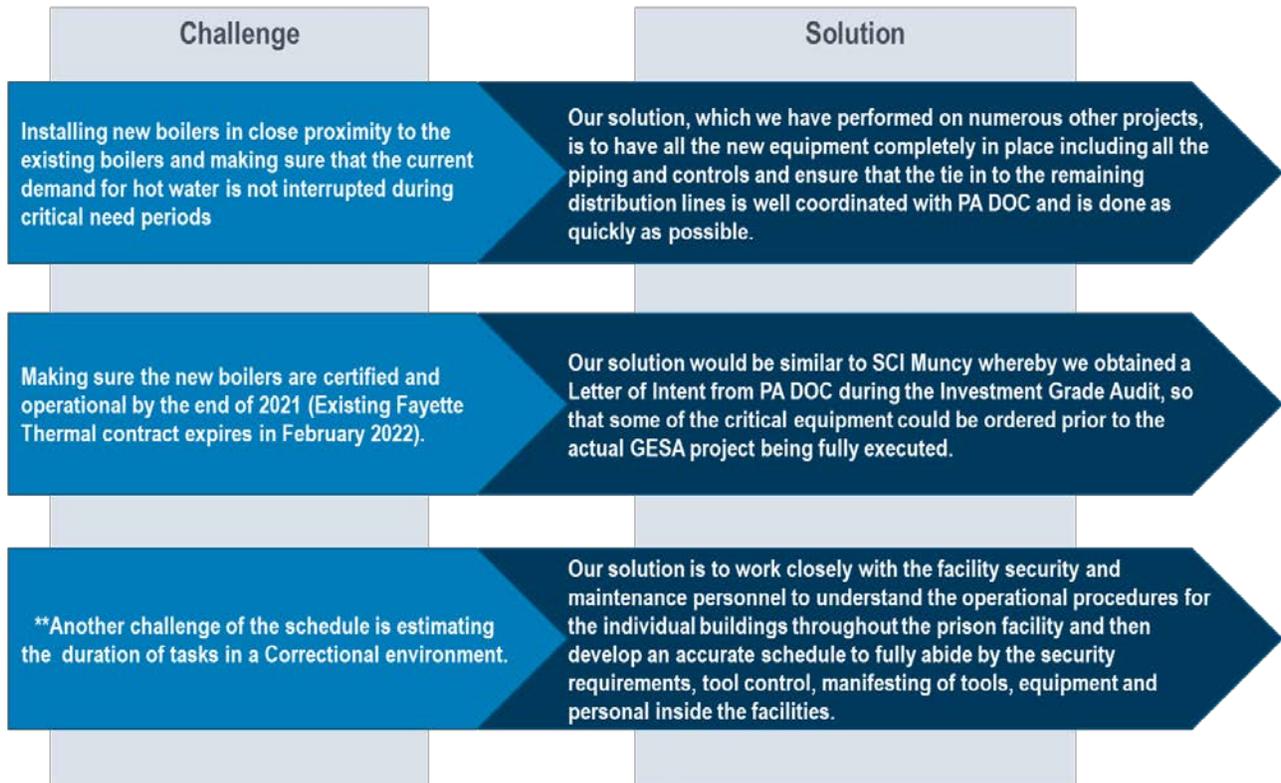
We will leverage *our extensive buying power* along with our ability to aggregate the purchasing requirements of many of our customers. In this way, we can obtain the highest quality grade products and services for DOC and SCI-Fayette, and at the lowest possible price. Again, our goal will be to maximize the impact and value we provide without sacrificing the quality needed for a successful outcome.

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6. Offeror demonstrated understanding of construction challenges and proposed solutions

The following graphic highlights the main challenges we foresee and our solutions to them.



*** Scheduling challenges include: completing security back ground checks of all ESG employees and all subcontractor employees; the scheduling of deliveries of materials and equipment to the facility; and the manifesting of tools and equipment from outside the perimeter to inside the facility, through the Sally Port or Gate House locations on a daily basis; and scheduling of escorts with the work crews. Another challenge in the corrections environment is working within the cellblock areas while trying to minimize disruptions to the normal operations of the facility. One critical component of our project is the need to remove inmates from cells and relocate them while the toilets, sinks and lighting fixtures are replaced or updated. As a possible remedy, it may be necessary for housing units to hold some cells vacant for inmate relocation while the work is being completed to their cells. Another critical component is the need to ensure that the facility maintains heat during the heating season. Our plan will include boiler upgrades to be completed during the summer when the building heat is not required.*

During the IGA phase, the ESG Delivery team shall meet with SCI Fayette staff to prepare a preliminary implementation schedule for the project. The development of this schedule will take into account SCI Fayette priorities and goals for this energy savings project. DOC and ESG shall review the construction challenges and logistics with each individual ECM, to further understand and define the optimum timeline for starting, performing and completing energy improvement work during the course of the project. The objective of this pre-installation administration process, is to allow DOC and ESG to prepare a base line working construction plan which will be redefined and updated with as the development of the IGA. ESG will also utilize the preliminary implementation schedule with to assist subcontractors with addressing or confirming procurement and installation requirements associated with this project.

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7. *Offeror thoroughly described a construction plan, including site operations, logistics, lay down area, including a detailed discussion on how the Offeror will accomplish the work within a fully occupied corrections environment.*

ESG’s delivery team shall hold weekly progress meetings at the ESG Field Office with DOC and subcontractors. A conference call will be set-up for the progress meetings so others such as DGS and DGS’s Energy Consultant can join in the meeting remotely. Meeting minutes and six (6) week look ahead schedule will be prepared for every progress meeting. These meetings will be dedicated to reviewing and addressing all coordination and production issues, escort allocation for each ECM and action items with current work schedule and preparing for future work. In addition, these meetings will facilitate DGS and DOC monthly on site administrative procedures, L&I inspections and future customer training and O&M Manual review meetings.

ESG will provide onsite supervision to oversee and manage the daily project coordination and assure weekly scheduled implementation work is performed per the agreements and time-line commitments summarized within the project progress meeting minutes and look ahead schedules. ESG’s supervision will continually monitor and manage the ECM work-in-progress to coincide with the required security procedures and with assuring minimal disruption to SCI Fayette facility.

ESG recognizes that there will be some disruption to the everyday activities that will result in inmates having to be relocated from the work areas on a daily basis:

ECM / Activity	Reason
ECM #3 – DDC Controls	Access to sensors for new wiring and sensors
ECM #4 - Lighting	Replacement/retrofitting of lighting
ECM #5 – Water Conservation	Access to cell toilet chases for replacement of flush valves/installation of new controls
ESCO #2 - Kitchen Hood Controls	Access to hoods although work can take place on off hours so as not to inhibit the Kitchen activities
ESCO #3 - Transformers	Access to transformers and replacement outages
ESCO #4 - Walk-In Box Controls	Access to walk-ins although work can take place on off hours so as not to inhibit the Kitchen activities
ESCO #5 – Building Envelope Improvements	Access to doors and exterior walls
ESCO #6 - Retrocommissioning	Access to diffusers, registers and grilles; access to mechanical rooms and/or roofs
ESCO #9 – Dietary and “K” Block Ventilation Issues	Access for improvements (Dietary can be done during off hours so as not to inhibit dishwashing activities)
ESCO #10 – Housing Unit HVAC Control Room Improvements	Access to control rooms and roofs
ESCO #11 – HTHW boilers	Access to Laundry area for the installation of the new Kitchen steam boiler system
ESCO #14 – Refurbishment of AHUs & RTUs	Access to roofs

ESG shall prepare to utilize covered and secure exterior fenced in staging areas, such as the Warehouse to store

the majority of the equipment and materials required for this project. Materials will be transported to the interior perimeter each work week and shall be stored at an approved interior location within a designated secured area as approved by the SCI-Fayette Security Staff. Daily cleanup and disposal procedures will be performed by all subcontractors based on facility operations and guidelines.

ESG utilizes before and after photographs of occupied spaces to document conditions pre and post work. Great care is taken to leave ALL occupied spaces in exactly the same condition as before the work took place. ESG anticipates very limited disruption to inmate traffic interface routing, program or daily operation disruptions. If a disruption is necessary, it would be limited and approved by facility staff a minimum of two weeks prior to the scheduled work start. Final determination with obtaining secured access and movement while performing ECM work will be addressed and approved during the IGA development timeline.

8. Explain construction coordination and meetings and how they will be handled with Funding Agency, site(s) & DGS;

Construction coordination and meetings will handled as follows:

Basically we have four types of meetings to handle construction coordination on a project: Project Kick off Meetings, Customer Progress Meetings, Subcontractor Meetings and Closeout Meetings.

1. Project Kick off Meetings occur when we start an installation of an individual energy ECM such as Lighting. These meetings are attended by the facility management staff, subcontractor project manager, and ESG project management. We review the installation matrix from the confirmed scope of work, coordinating activities with the facility through ESG on site supervisors for day to day activities. Including worker facility policies, safety requirements, security coordination, and daily reports.
2. Customer Progress Meetings occur weekly or bi-weekly based upon the amount of activity on the project site. These meeting are attended by the ESG project management and engineering team, facility site team, funding agency and DGS administrators. There is a set agenda that includes safety, energy conservation measure item review, measurement & verification review, MS project schedule 6 week look ahead schedule – subcontractors work plans for daily activities, project summary matrix of all activities to complete the project, project submittal review, working conditions review and other items for discussion. These meeting provide a project snap shot of installation activities.
3. Subcontractor Meetings occur on a weekly and as needed basis between ESG project staff, facility staff, and subcontractor(s) coordinating with facility management staff and security for daily activities. These meetings also serve to resolve any issues on a project and bring resolution to the facility management and staff.
4. Closeout Meetings occur at the completion of an energy conservation measure (like lighting). These meetings are attended by the facility management staff, ESG project management, and the subcontractor, we review the confirmed scope of work matrix and make sure all items are complete. The subcontractor provides a summary of the installation, we review the operation and maintenance manuals, warranty applications/procedures, training, and complete project sign off documents with the designated person. These meetings are used to ensure the systems are fully operational for SCI Fayette.

9. Offeror discussed Project Safety Plan, Management and Monitoring

ESG's Safety Plan & Safety Management Approach

The following activities and guidelines will be used at SCI Fayette to help ensure that work is being completed safely from construction kickoff through project acceptance.

During Project Development, the Lead Engineer and Project Manager complete a comprehensive (20-page) Environmental Health and Safety (EHS) questionnaire. The questionnaire covers any potential hazard that could be an exposure to existing employees, contractors, or the public. It is then vetted by the project management team. This integration method fosters everyone's ownership of the project and the development of the site-specific safety plan.

Upon Contract execution the following activities and guidelines will be utilized:



Safety Plan – ESG creates site-specific Accident Prevention Plans (APP). The APP is strictly adhered to throughout construction and each of our subcontractors must sign off that they are aware of and will follow all of the guidelines. ESG's Project Manager and Construction Manager ensure that daily construction activities are performed in a safe manner at all times.



Implementation – Project safety orientation training, daily safety briefings, and pre-task planning meetings to review the Definable Features of Work comprise the safety effort in the field. These sessions build trust because everyone is involved with safety, not only the Safety Manager. Regular assessments and feedback are captured in site audits, and deficiency logs used to capture both deficiency and positive correction in form of lessons learned at weekly customer/management meetings.



Monitoring Subcontractors – ESG monitors our subcontractors through several means including employing a robust APP, demanding that they abide by all ESG and customer safety requirements, attending and participating in safety meetings, completing safety orientation at the beginning of project construction, and following all safety inspection conclusions.



Stop Work Notices – All workers have the authority to stop work activities if an imminent danger condition is noted or perceived. These conditions include, but are not limited to, danger of serious injury, fatality, property damage, or environmental release. All ESG employees and subcontractors have the responsibility to stop and/or prevent work at any time. No worker will face recrimination if they issue a *Stop Work Notice*. Any time a *Stop Work Notice* is issued, an *ESG Near Miss Form* must be completed.



Safety Stand Downs – ESG also holds safety *Stand Downs* that all employees must participate in whenever negative trends are observed in our work force or with our construction partners. Although infrequent, the purpose of the *Stand Down* is to bring the negative trends or near misses to everyone's attention and to refocus safety in a particular area to stop the downward trend before a serious accident can occur.

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Safety is not simply a program at ESG—it is a mindset and an expectation of our employees and our subcontractors. Keeping our employees, subcontractors, and customer personnel safe while implementing construction projects is our primary concern. There are multiple steps to ensure a safe working environment throughout a project’s duration. As a part of our safety culture, ESG promotes the following guidelines:



- Before each job, we identify hazards and determine how to avoid them. We review safety details with all employees who will perform the work.
- While working, we watch out for each other and take action if we see unsafe conditions.
- Reporting safety concerns is rewarded and protected to remove any hesitation from employees doing so.

ESG’s recent Recordable Incident Rate (RIR), Experience Modification Rate (EMR), and Days Away Restricted Time Rate (DART) underscore our company’s focus on construction site safety.

Year	OSHA Recordable Incident Rate (RIR)	Experience Modification Rate (EMR)	Days Away Restricted Time Rate (DART)
2020 (to date)	0.42	0.85	0.42
2019	0.55	0.82	0
2018	0.59	0.65	0.30
2017	0.61	0.66	0
2016	0.00	0.66	0

EMR compares your workers’ compensation claims experience to other companies similar in size who operate in the same industry. Most employers who have annual premiums in excess of \$3,000 receive an EMR. The industry average EMR is a 1.0. **ESG’s EMR is consistently and significantly better than the industry average.**

Safety Management

ESG’s safety management program is supported by corporate management, administered by the company’s project management team, and monitored by ESG’s Corporate Safety Department (Corporate Safety).

Safety will be accomplished by providing a safe work environment for our employees, subcontractors, and our customer’s employees, inmates, and visitors; incorporating safety into the planning, construction, and maintenance of the project site and equipment; and complying with applicable rules, policies, procedures and regulations relating to Federal, State, Customer policies and ESG requirements.

Please know that ESG expects our managers to lead by example. Any incident that may occur is evidence that the safety prevention effort has failed. If an incident is to occur, immediate action is taken to address deficiencies in our safety program.



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Accident prevention is of primary importance in all phases of the project delivery and administration. It is ESG's responsibility to provide safe and healthy working conditions, and to establish and insist on safe practices at all times by all employees and subcontractors.

Safety integration is a primary component of project development, implementation, and the operations of ESG projects. Your ESG project manager is required to establish a specific safety plan for the project at the construction site. The details of the safety plan include customer requirements and procedures, as well as procedures outlined in the ESG Corporate Safety Plan. It is incumbent upon the project manager to proactively enforce safety compliance on a daily basis and document any incidents, should they occur. Selected subcontractors go through a rigorous prequalification process that includes a detailed review of their safety programs and OSHA records. ESG's project management software is utilized during each inspection to document, track, and help resolve any infractions that may arise.

Corporate Safety will oversee construction site safety training for the SCI Fayette project to include a verification process to ensure that all personnel understand and are competent in the application of compliance and safety regulations. The project team will provide a facility and operational framework capable of integrating health, environmental, and safety concepts into daily work activities. ESG's Safety Manager also assesses potential health and safety hazards, performs site inspections, ensures provision of needed signage, enforces use of personal protective equipment and adherence to emergency safety procedures, and ensures daily safety-related job planning.

Subcontractor Selection & Safety Evaluation

Safeguarding our employees and subcontractors is paramount. To help enable this, ESG employs a three-step process to select only the most qualified subcontractors with a proven ability to perform safely. Each of these steps is facilitated by our Project Procurement Manager during the subcontractor bidding process. All safety evaluations are reviewed by ESG's Safety Manager.

Step One	Step Two	Step Three
<p>We evaluate each potential subcontractor on a combination of safety metrics, including EMR (<1.0), OSHA statistics (DART), total recordable incidence rate (TRIR), and recorded violations. We thoroughly review potential subcontractor safety records during the vetting process documented through customer references and positive results on the OSHA website.</p>	<p>We ask each subcontractor to complete a safety questionnaire that covers numerous potential safety issues that could be encountered during construction. We use these results to help determine if the subcontractor has the necessary understanding of the possible risks that could be encountered on the job site. This questionnaire is also used to give us an indication if the subcontractor is sufficiently prepared to work safely on a customer site.</p>	<p>We ask for and review each potential subcontractor's safety programs to ensure they have adequate training and the ability to address and work safely in workplace hazards. For example, if we anticipate the subcontractor will be working in a confined space and will need the necessary permitting, we will ensure they have the proper program and internal support structure to perform the necessary tasks.</p>

Pandemic Mitigation Measures

In order to provide the safest and healthiest work environments for our employees and customers during the recent outbreak of the novel COVID-19 virus, ESG has implemented a Pandemic Preparedness and Response Plan (PPRP) on projects in implementation. We added the PPRP as a supplement to the project's Construction Site Safety Plan. The PPRP follows current recommendations from the Centers for Disease Control and Prevention (CDC) along with other government agencies.

New action items within the PPRP include a wellness screen at least twice a week and a travel screen at least twice a month for each subcontractor employee working on one of our projects. These screens are documented and are assigned to the subcontractor to complete.

ESG is also implementing the following action items until further notice:

- Minimizing non-essential group travel, including ESG site management (Project Manager, Construction Manager, and Site Safety and Health Officer)
- Leading daily/ongoing COVID-19 education for workers with signature attestation of participation and understanding.
- Practicing social distancing (six or more feet from one another), especially where it is necessary to gather in groups (10 or fewer) with subcontractors
- Encouraging strict handwashing and sanitizing practices to prevent the spread of germs
- Monitoring temperatures of personnel at the start of each work shift
- Anyone with a temperature of above 100°F or greater will be given a mask, sent for testing, and not allowed to return to work until cleared by a medical professional.
- When working in occupied buildings, adhering to CDC guidelines including and wearing a face mask or approved cover of the nose and mouth
- Reducing subcontractor work crews to less than 10 personnel for the next 15 days (to revisit once 15-day period has passed)
- Ordering workers to stay at home if feeling sick

10. Offeror discussed an effective QA/QC plan

Quality Assurance and Quality Control Procedures (Engineering and Construction)

A Design Quality Control (DQC) plan will be developed by the Lead Engineer and Lead Project Manager - the Design Quality Control Staff (DCQ Staff). The DQC Staff will create and implement a comprehensive Project Communication Plan that indicates the frequency of design meetings and the agenda for each meeting. The Communications Plan shall detail what the key design decision points are, and will assure that these items are reflected on the CPM Schedule and integrated with Construction and Implementation plan.

ESG has a continuous Quality Control Process for assuring performance meets or exceeds the DGS/SCI Fayette's expectations in all phases of the project implementation. The quality process will adhere to three basic principles:

1. Prevent errors from being introduced
2. Ensure that errors are detected and corrected as early as possible
3. Eliminate the causes of the errors as well as the errors themselves

An outline of the Engineering Quality Control (EQC) and Construction Quality Control (CQC) Plans are provided.

ESG’s Approach to Engineering Quality Control and Construction Quality Control

The Engineering Quality Control (EQC) and Construction Quality Control (CQC) plan will be co-developed by ESG’s Lead Engineer and Lead Project Manager, together comprising the EQC Staff. The EQC and CQC for this project are broken down into five (5) distinct steps provided in the matrix below which coordinate and integrate seamlessly throughout the project.

ESG’s Lead Engineer is responsible for the accuracy and completeness of the plans and related designs prepared by each of the disciplines for the project and for completing and submitting the following to the lead project manager:

1. All checks and checklists
2. Reports
3. Computations
4. All other design support documentation

Included in the EQC/CQC Plan will be a Project Communication Plan that indicates the frequency of design meetings and the agenda for each meeting. The Communication Plan shall detail the key design decision points and assure that these items are reflected on the CPM Schedule and integrated with the Construction and Implementation plans.

Coordination of each design discipline is maintained through weekly design progress meetings and constant communication between the scheduled meetings. The weekly meetings include all disciplines and parties involved in the project development, delivery, and commissioning. An Engineering Quality Control Manager is designated for each discipline and is responsible for ensuring design integration among the trades is maintained and conflicts are identified and eliminated. At a minimum, the design review meetings will address the following items:

1. Compliance with the project requirements
2. Review for technical accuracy and adequacy
3. Compatibility among disciplines
4. Compliance with previous review comments

The EQC process matrix on the following page integrates with the Construction Quality Control (CQC) process matrix in the following section. Together these processes are an integral part of the EQC and CQC aspects of the Critical Path Method (CPM) design build delivery method.

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STEP I: Initial Project Design

Preparatory Phase:

- Design Planning Session / RFP Review
- Site Visit
- Building & Site Use (Current & Future)
- Building Construction Features

Initial Phase:

- Site Visits Executed
- Program of Requirements Review
- Reviewed by DQC Team
- Validation of Program Scope

Follow-Up Phase:

- Coordinated with Construction Schedule
- Design Basis reviewed by Customer
- Design Basis Reviewed by DQCM
- Meetings with Customer to discuss variances

STEP II: Equipment Selection

Preparatory Phase:

- Specification Review Session
- Vendor Capacity Review
- Vendor QC Production Plan
- Equipment Scheduling and Staging Plan

Initial Phase:

- Detailed Review of Design/Equipment Selection
- Life Cycle Cost Validation
- Selection Review DQCM, CQC
- Equipment Submittals DQCM, CQC
- Equipment Ordering/ Production/ Logistics Plan

Follow-Up Phase:

- Vendor QC Production Reviews
- Equipment Schedule coordination with CPM
- 3 Week/ 3Month look ahead
- Inspection of Delivered Materials by CQC
- Meetings with Customer to discuss progress

STEP III: Layout/CADD

Preparatory Phase:

- Spec. Review Session w/ Designer
- Review of Design Intent
- Coordination with Building Construction Features
- Layout Schedule and Review

Initial Phase:

- Detailed CADD Layouts
- Field Personnel Coordination
- CADD Review DQCM
- Constructability Review CQC DQC, PM
- Construction Submittals PM, CQC
- Coordination with other DOR's

Follow-Up Phase:

- CADD Layout Reviews
- Coordination with CPM
- CADD Layouts Reviewed by PM, CQC
- Meetings with Customer to Discuss Progress

STEP IV: Construction Verification

Preparatory Phase:

- Specification Review Session with Project Manager-Mechanical
- Review of Design Intent
- Coordination with Building Construction Features
- Construction Schedule
- Construction Review Process

Initial Phase:

- Monitor Construction Progress
- Field Inspections by DQCM, CQC, During Construction
- Comparison of Work to Specifications Review CQC, DQC, PM
- Construction Certifications by CQC
- Coordination with other DOR's

Follow-Up Phase:

- PM Field Report Reviews
- Monitor Construction Progress
- Coordination of CPM
- CADD Layouts Reviewed by PM, CQC
- Meetings with Customer to Discuss Progress

STEP V: As-Built Drawings/CADD

Preparatory Phase:

- Spec. Review Session w/ Designer
- Review of Design Intent
- Coordination of As-Built Data
- As-Built Schedule Review
- Prepare a Training Plan for O/M Personnel

Initial Phase:

- Field Inspection by DQCM, CQC, PM
- As-Built Review CQC, DQC, PM
- As-Built Submittals PM, DQC, CQC
- Coordination with other DOR's
- Conduct first round of Training

Follow-Up Phase:

- PM Field Report Reviews
- Field Inspections
- As-Built CADD Reviewed by PM, CQC
- Meetings with Customer to discuss progress
- Continuous Training Sessions

11. Offeror demonstrated understanding of the close out process for training of personnel, manuals, Occupancy Permits, commissioning and final closeout

For the proposed scope of work, the major objectives for implementing a closeout and commissioning process are to:

- Ensure total system operationally and functionality
- Optimize energy use in line with the ECM intent
- Lower operation and maintenance costs
- Extend the life of assets
- Reduce asset life-cycle costs
- Improve indoor comfort

Training of personnel:

ESG proposes training and monitoring as an integral part of this GESA project. We feel that an investment in continued technical training of the existing staff with respect to the utilization of the proposed systems, in combination with continued systems monitoring, will contribute to the proficiency of the staff and provide the level of efficiencies designed in our solutions. Depending on the complexity of the ECM, training can range from a few minutes in the field to classroom sessions. The training program subject matter will include information customized exactly for what it takes to perform the required maintenance and operations functions, what skill levels are required, and what specialized tools and/or instrumentation will be necessary. All training will be documented with a sign-off form. Technical support and flexibility are key ingredients for ESG's support services plan. Based on our assessment of the facility, ESG will provide maintenance and operational training for the proposed building automation systems, HVAC equipment, computerized water conservation measures and other identified equipment installations. ESG will design and perform any training programs (customized and based on the expertise level of the DOC staff) required to ensure proper maintenance of the installed equipment. ESG typically videotapes training sessions so that current and future staff have access to the training as a refresher and learning tool.

Manuals:

Providing updated O&M Manuals is an important element of the project's success. ESG will collect copies of applicable operations and maintenance material currently available in each building, including mechanical, electrical and architectural drawings, as well as technical manuals. Associated drawings and technical manuals will be checked for accuracy, and corrected as necessary. Existing O&M material will then be combined with information for all new systems to create a master O&M manual. For the proposed scope of work, this will contain a summary of all equipment and systems within the facility, and will reference where to find additional information (if required) from the drawings and technical manuals.

This manual will be used to help the on-site staff maintain equipment operation at the level that will ensure optimal energy efficiency. The O&M manuals will be used during staff training sessions to address any questions and to reinforce their importance. The O&M manuals will contain all pertinent warranty information which will also be addressed at the time of ECM training.

Occupancy Permits:

ESG will work with the PA DOC and PA Department of Labor and Industry to determine if any of our scopes would require new or revised occupancy permits and will provide the necessary information to the State Agencies as required.

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Commissioning:

Commissioning takes place in several phases, ECM development, design, construction, acceptance and post acceptance. Due to the page limitations of this RFP response, we are providing a brief overview of the commissioning process, however, a detailed, system-specific commission plan will be included in the IGA and the design phase. Commissioning is a process of documenting, adjusting, testing, verifying, and training that improves building and equipment operation. It is performed specifically to ensure that the completed facility improvements operate in accordance with the documented project requirements. ESG's commissioning steps include Operational Acceptance Testing (OAT) and Functional Acceptance Testing (FAT). The primary goal of OAT and FAT is to optimize equipment operations and maximize the benefits without comprising American Correctional Accreditations and facility security.

Final Closeout:

The final step in this phase is the execution of the Certificate of Completion. This is the statement of agreement that all work contracted for this project has been performed, and triggers the savings guarantee and financial payment. The Project Manager uses a combination of project scheduling software, custom spreadsheets, site specific reports, web technology, and regular owner meetings to keep you up-to-date on all aspects of the project.

2-5.3 RFQ Project Schedule

A1 – Narrative clearly identifies critical aspects of the schedule and associated risks, and the process to ensure achievement of critical milestone dates.

The ESG project delivery team’s approach and methodology is to manage the project schedule by defining critical milestone dates with accurate ECM implementation durations. In addition, ESG understands the critical importance of involving SCI Fayette with the initial development and final schedule orientation, to assure their needs and improvement recommendations are prioritized within the Master Site Implementation Schedule.

ESG has an excellent record of accomplishment with managing and maintaining project schedules during the Development and Delivery phases of the project. ESG utilizes a “Look Ahead Schedule” format to organize and communicate the status of each ECM throughout construction. Any unexpected delays are documented and discussed with the Funding Agency representatives and DGS as necessary before any modifications to the IGA schedule are made.

Look-ahead schedules shall be distributed and reviewed during the bi-weekly progress meeting; main purpose of the look ahead is to assist with summarizing and communicating all completed work, work currently in progress and forecasted work or ECM completion timelines associated with the project. In addition, ESG will schedule specific meetings to address a client request or coordination issue with a specific ECM as required. The Master Site Implementation Schedule shall be updated monthly and included within ESG’s Executive Summary Report.

The ESG master schedule development process provides the following advantages for a team approach GESA Project:

- **Provides clear and definite milestone timelines and/or completion dates required by the client, including but not limited to: Notice of Selection; Commencement and Completion of IGA; Submission of Resulting Report; and, Full Execution of GESA Contract.**
- Promotes partnership with the client during the development and implementation phases of the project.
- Insures careful planning, since we are affecting the environment of employees and inmates. ESG shall advise subcontractors to work within pre-determined client timelines or, when the potential exists, during off-hour shift work, to assure a specific work or shut down is scheduled to minimizing disruptions with daily operations are included within the Master Site Implementation Plan.
- Remains available to address future client requirements and will be updated monthly to document completed ECMs during the entire Delivery Phase duration. At times we encounter unexpected issues: It may be from the client requests that change the scope, or building use that has changed since the completion of the IGA, or future plans for the building have changed causing an ECM to be added and or removal from the project. In every case, ESG shall assist the client and incorporate the ECM change in scope of work with minimal impact or delay with the overall schedule.

There are two (2) types of schedule-related risks for this project: (1) design risks and, (2) construction risks.

The most prevalent overall risk to the project is the February 2022 end of the agreement with Fayette Thermal to provide the steam for the Institution’s high temperature hot water (HTHW) system, which is also the heating medium for the heating hot water and the domestic hot water systems. Fayette Thermal also provides the steam for the absorption chillers and the Kitchen.

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Risk management commences with ESG's selection of an experienced central utility plant design team. Utilizing the services of either CJL Engineering or Entech mitigates this aspect of the design risk as both are highly competent in the design of central utility plants. The next significant risk is the steam requirements of the Institution?

ESG's preliminary analysis has determined that the maximum steam demand is actually during the summer due to the absorption chillers. During the heating, or winter months, the steam demand is actually lower. The key to the project is determining the true winter steam demand loads of the Institution. Consequently, the question becomes, taking into account ECM #2 - installing new electric chillers, what is that actual demand load? This is the most prevalent design risk.

Performing the Investment Grade Audit in this upcoming winter season provides that perfect opportunity to determine that load. The Institution currently has a steam flow meter within its Central Utility Plant. As this steam flow meter is currently inoperative, ESG proposes the installation of a new insertion steam flow meter, similar to an Onicon F-2700 that can be hot tapped and installed without any steam shutdown. This will allow ESG to determine real time steam consumptions including the base loads (the HTHW used for domestic hot water heating and the Kitchen steam) and the change in steam consumption due to the outside air temperatures. This meter can also be re-used, and placed into the final design location, even if the final heating system selected switches to HTHW.

One may question why not just repair the existing meter? It has been installed since the beginning of the prison – now almost 20 years ago and, even recalibrated, may provide false readings. Also, the new steam meter proposed will allow better, more effective, data to be received. When the cost of this meter is considered versus the short term construction and long term operational costs of the new boiler plant, the costs of this meter is inconsequential.

Our proposed schedule allows for almost three (3) months of steam consumption data during some of the traditional coldest months of the year. This also allows ESG to determine the aforementioned domestic hot water and Kitchen steam loads when temperatures do rise, as they usually do, during the day and when winter “warm-ups” occur. This will ultimately allow ESG, working with DGS, DOC, SCI Fayette, PSFEI and the DGS Energy Consultant, to review the data and select the best combination of boilers to allow the Institution the most latitude in terms of not only operational efficiency but due to changes in the outside air temperatures and heating demands. By knowing the true loads, the biggest design risk is minimized.

The biggest construction risk is the ECM #1 Installation of New Boilers (steam) or ESG ESCO #11 Installation of HTHW Generators, and having them not only in place, but properly tested, commissioned and all done with sufficient operational testing time prior to the expiration of the Fayette Thermal agreement. SCI Fayette pays Fayette Thermal regardless of whether the steam produced by Fayette Thermal is used or not and it is important that the new system functions as desired before steam is terminated. Consequently, ESG has allowed a minimum operational performance period of 30 calendar days (20 work days as reflected in the schedule) of performance testing after start-up and commissioning, to prove the reliability of the respective system being installed. This includes the propane blending station, which will provide SCI Fayette with its stand-by source of fuel for not only the boilers but the Kitchen and Correctional Industries.

Based on ESG's approach to determining the true steam loads and our ability to pre-purchase prior to the completion of 100% design documents, ESG will ensure that the boilers selected will be available when needed.

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Simplifying the design as much as practical to enable a successful installation will also be a key aspect of the design and construction process. These actions will minimize the construction risk and the risk of the system operationally being able to handle the building loads and available as needed.

The attached project schedule, while not a complete detailed schedule, highlights some of the more critical measures of those activities necessary to ensure that the appropriate service will be available and fully operational when needed by the Institution. As shown for ECM #1, this starts with the installation of the concrete housekeeping pads and setting of the new boilers along with the piping, flues and electrical and control work, through termination of the Fayette Thermal steam. If the decision is to eliminate steam, except for the proposed 100 bhp low-pressure steam system for the Kitchen, the schedule depicts the phasing plan to ensure continuity of the HTHW system throughout the construction process along with the phasing necessary for the proposed HTHW boilers to “fit” within the existing central utility plant.

Also, the existing underground steam and condensate service to the Kitchen continues to deteriorate and if this system would fail, the Institution would incur significant cost in either repair or renting a temporary steam boiler to continue Kitchen and dishwashing operations. ESG’s schedule includes the early installation of a new 100 bhp low-pressure steam system to permanently eliminate this risk for SCI Fayette.

Similarly, with ECM #2, the schedule walks the reader through the installation of the new electric chillers so the new electric chillers are available for the 2022 cooling season. This allows for the shutdown that the existing steam absorption chillers next fall (2021) after the cooling season when SCI Fayette will shut down its chillers for the 2021-2022 winter.

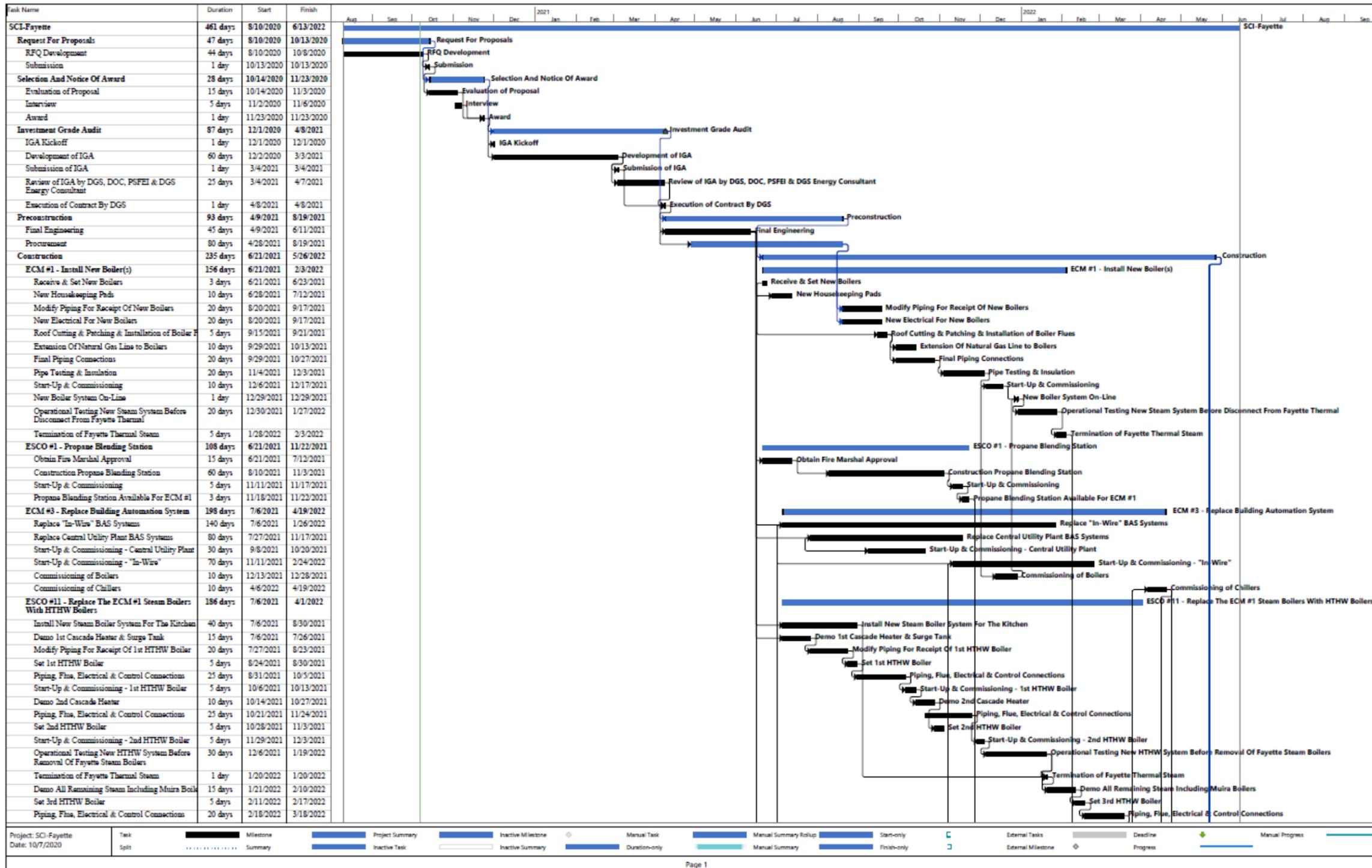
Similar to the steam system, and to ensure that the new chillers are not oversized for the actual load of the Institution, ESG can, next summer, install a similar flow meter in the existing secondary chilled water system to provide real-time data on the actual tonnage required. This will: (1) allow the right sizing and configuration to maximize efficiency while still handling the Institution’s load requirements; (2) maximize its energy savings; and, (3) still allow the chillers to be on site when needed in January 2022. To enable the Institution to have a means of “free” cooling after SCI Fayette shuts down its chillers for the 2021-2022 winter, ESG intends to have a significant amount of the new DDC control system completed and commissioned prior to this shutdown to enable the respective air handling or rooftop unit to utilize economizer mode to keep the spaces at the desired temperature.

The key aspect of ESG’s preliminary schedule is its ability to have the necessary work completed, tested, commissioned and performance tested prior to the needs of SCI Fayette.

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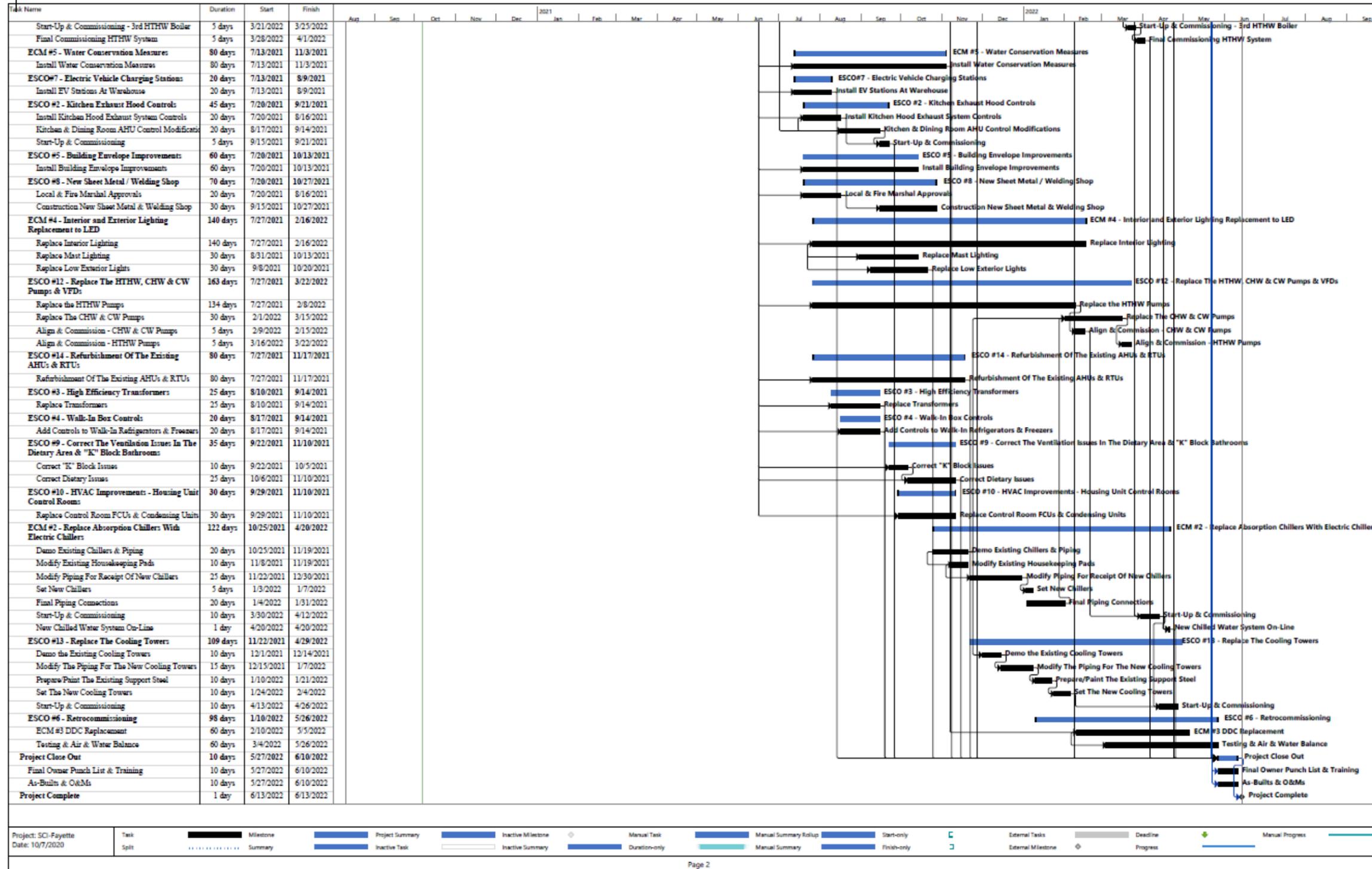
Response to Request for Quotes for a Guaranteed Energy Savings Project

A2 – Offeror sets forth a logical progression of critical path, including at least the Notice of Selection, duration and submission of the Investment Grade Audit, execution of GESA Contract, permit submission and approval dates, durations of on-site work, scheduling of start-up and testing of equipment, commissioning and training of personnel.



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Project: SCI-Fayette
Date: 10/7/2020

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

Page 2



A3 – Offeror integrates and coordinates construction with local utilities, subcontractors, equipment suppliers and Funding Agency facility personnel.

At ESG, we pride ourselves on our ability to manage complex projects and to adhere to project schedules and milestones. Through a collaborative effort, ESG publishes a project schedule and manages the project following monthly progress updates. Over the course of construction, ESG monthly schedule updates shall record progress and duration adjustments to current ECMs in progress through to substantial completion, close out and customer training. Prior to construction, we will map out a plan and mobilize the project team as well as all approved subcontractors and facility personnel to implement project operating procedures, safety training, identify required permits, submittals and utility coordination.

Communication is critical to the success of all projects, and we will utilize both formal and informal contacts to ensure we are continually apprised of your views. We will first develop a contact list of primary project participants. All reports will then be submitted based on this list. ESG will hold regular job progress meetings with all subcontractors, consultants, PA DOC, PA DGS, and facility representatives. This will allow all interested parties to monitor our installation and performance. Our project management process is structured to maintain close control of all tasks involved in implementation. At the same time, the continuous involvement of facility personnel will ensure that the impact on day-to-day operations is minimized. Our dedicated local project manager and on-site construction superintendent(s) will control the pace and responsibilities of all subcontractors and suppliers.

The ESG Team will be responsible for interfacing with all parties (local utilities providers, suppliers, consultants and subcontractors) associated with or impacted by this project. During the Investment Grade Audit (IGA) phase, ESG will work to closely review utility regulations, permits or approval requirements relative to each selected ECMs and shall include any pre-construction procurement timelines within the Master Site Implementation Plan. As mentioned previously, during construction, ESG shall administrate two progress meetings per month with the overall project team, (PA DOC, PA DGS, ESG, Energy Consultant, Engineer of Record, Utilities Representatives and Subcontractors) to manage short and long term scheduling and coordination issues as they arise, and to review current ECM progress with updated look ahead schedules. Action items and agreements arising from progress meetings will be documented within ESG meeting minute format; a look-ahead schedule section will include with each meeting minute issued.

ESG will work with local utility representatives to ensure that all utility rebate applications are submitted on time and in compliance with the rebate procedures.

ESG will work with all subcontractors to ensure that they are working in compliance with all site health and safety measures.

ESG will devote a qualified project and construction management team to be on-site during all phases of implementation to oversee and ensure seamless project execution. ESG management will work with all equipment suppliers to ensure on time deliveries of critical equipment for the project. All aspects of the project are directly overseen through ESG's on-site field office. It is our policy to work in concert with our customers to obtain preferred supplier, vendor, and contractor resources to assemble the most appropriate team. ESG's prequalification and acceptance criteria in our final selection protocol to assure recommended subcontractors and suppliers conform our high standards of performance, safety, reliability and providing customer satisfaction.

2-5.4 Qualification Forms

2-5.4.A.1 GESA Contractor Qualification Forms

Experience with GESA projects

Energy Systems Group (ESG) has implemented over 730 energy efficiency and facility infrastructure improvement projects totaling over \$3.3 Billion for more than 440 Customers in 39 States.

Our proposed team for the SCI Fayette GESA has worked on numerous GESA projects and has over 205 combined years of experience. Many of those projects are highlighted on the team’s individual qualifications sheets. ESG is quite knowledgeable with the PA GESA process. In Pennsylvania, our proposed team completed the **\$20M SCI Dallas GESA Project**, which was determined by PA DOC to be a very successful project. The SCI Dallas project took place within a Pennsylvania Correctional Facility and our team was praised by the SCI Dallas staff for implementing a successful and safe project in adherence with the security guidelines established by PA DOC and SCI Dallas. ESG was also selected to implement the PA Department of Conservation and Natural Resources (DCNR) **\$5.5M DCNR Western Region GESA project** encompassing more than 24 DCNR locations throughout Western Pennsylvania. ESG was also selected to implement the **\$18M SCI Muncy GESA project** which is currently in construction.

Our core team assigned to SCI Fayette is quite familiar with the following critical documents included in the RFQ:

- The GESA Contract
- General Conditions for the GESA Contract
- Administrative Procedures for GESA Contract
- GESA Project Design Manual
- Hazardous Material Abatement Information
- Environmental Statement
- Prevailing Wage Rates

ESG has a proven track record working on Corrections Projects without any negative incidents and for meeting or exceeding GESA project savings projections on all our projects.

a. Offeror provides Management Team Individual Qualification Individual Qualifications (6 person limit) and describes Entity’s experience with GESA projects.

Energy Systems Group’s management team’s individual qualifications are included on the following pages for your review. Listed below are the number of years of experience developing and implementing GESA type projects for our core team assigned to SCI Fayette.

Team Member	Years of Experience
Tony Prelec	24
Steve Richmond	32
Mark Winters	26
Ron Rychel	25
Dan Khuu	26
Jerry Elmblad	35

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Tony Prelec, Account Executive

Tony is a business development professional with more than two decades of experience. As an Account Executive for Energy Systems Group, Tony assists governmental agencies, local and state governments, military facilities, K-12 schools, and higher education customers in improving their energy infrastructure and reducing operating and energy costs. Prior to joining ESG, Tony worked at Pepco Energy Services as a Business Development Manager, where he was responsible for delivering performance contracts to public sector entities in Pennsylvania and was a major contributor to the Energy Services Coalition's Pennsylvania Chapter. Tony holds a B.S. in Electrical Engineering from Pennsylvania State University and holds an Electronics Degree from Parkway Technical School. He also studied Business Administration at the University of Virginia's Darden Graduate School of Business Administration.

Professional Affiliations:

Energy Services Coalition

- Pennsylvania Chapter

Past Projects / Markets Proposed:

SCI Muncy - Correctional Facility – GESA	State Govt.	PA	\$	18,305,789
DCNR West – PA GESA 4	State Govt.	PA	\$	5,680,548
City of Middletown	Local Govt.	NY	\$	12,675,618
SCI Dallas – Correctional Facility - GESA	State Govt.	PA	\$	20,434,067
Slippery Rock Area School District	K-12	PA	\$	2,404,967
Conewago Valley School District	K-12	PA	\$	430,690
Sun Votech	K-12	PA	\$	1,758,515
Lampeter Strasburg School District	K-12	PA	\$	1,634,286
Carlisle Borough Pennsylvania	Municipal	PA	\$	754,288
Elizabethtown College	Higher Ed	PA	\$	2,293,713

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Jerry Elmblad, Account Executive

Jerry has over 37 years of experience in the engineering field and has developed and administered energy reduction methods for industrial, commercial, and residential buildings. His specialty focus is developing energy infrastructure solutions for correctional facilities. In his current role, he administers and manages performance-based contracts, working on every stage of a project, from the preliminary proposal through construction and completion of the project. He prepares and negotiates orders, develops the initial scope of work, and helps create contracts. Before joining ESG, Jerry held the position of Energy Programs Coordinator for the Michigan Department of Corrections, where he provided major energy reduction projects for their 952 buildings with an energy and utility budget of \$54 million. He has also worked for the state of Michigan's all-agency Energy Committee and for the state's Energy Performance Contracts Committee as an Energy Performance Contract Compliance Inspector and as an Energy Use Reduction Coordinator. Jerry studied Engineering and Administration with the U.S. Navy.

Awards:

2006 Michigan Department of Corrections Professional Excellence Award
2009 American Correctional Association Best in Business Award for Energy
2009 Michigan Governors Energy Award for the Department of Corrections

Past Projects/Markets:

SCI Muncy PA GESA Project	State Govt.	PA	\$	18,305,789
Michigan DOC – Ionia Regional	State Govt.	MI	\$	35,000,000
Ohio DRC – Lebanon Facility & Warren Facility	State Govt.	OH	\$	13,521,663
SCI Dallas PA GESA Project	State Govt.	PA	\$	20,434,067
Wisconsin DOC - Oakhill	State Govt.	WI	\$	2,234,605
Michigan DOC (18 separate facilities)	State Govt.	MI	\$	8,550,000
Michigan DOC – Jackson Regional	State Govt.	MI	\$	2,500,000
Ohio DRC – Women’s Reformatory	State Govt.	OH	\$	5,074,596
Michigan DOC – Kinross Facility	State Govt.	MI	\$	6,000,000
Michigan DOC – Parnall Facility	State Govt.	MI	\$	2,500,000
Michigan DOC – Straits Facility	State Govt.	MI	\$	250,000
Michigan DOC – Newberry Facility	State Govt.	MI	\$	4,000,000

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Mark Winters, PE, CEM, Engineering Manager

Mark has developed over \$300 million in energy savings and renewable projects since 2000 for multiple markets. Mark forecasts project costs, analyzes energy reduction, and administers measurement and verification tests. He also conducts site assessments and manages operations and maintenance at facilities. In his current role, Mark oversees project development for the company's Northeast Region. He is involved from the beginning stages of project conceptualization and design to the completion of the contract. Mark and his team work with applications in commercial buildings, higher educational facilities, K-12 buildings, state and federal government facilities, water/wastewater plants, hospitals, detention centers, and laboratories. Prior to joining Energy Systems Group (ESG), Mark was the Vice President of Premier Energy Services. Before working at Premier, Mark was a Senior Energy Engineer for Wendel Companies. He also served as a Lieutenant in the U.S. Navy. Mark holds a B.S. in Mechanical Engineering from Youngstown State University and an MBA from the State University of New York at Buffalo.

Certifications:

Certified Energy Manager (CEM)

Professional Engineer (PE): Pennsylvania - # PE080124

Connecticut - # PEN.0029009	Massachusetts - # 49961	Rhode Island - # PE.0009958	Washington, DC - # PE906744
Delaware - # 17945	New Hampshire - # 13836	Virginia - # 0402050730	West Virginia - # 020558
Maine - # 12989	New Jersey - # 24GE05061600	Vermont - # 018.0086973	
Maryland - # 30759	New York - # 16083334		

Professional Affiliations:

Association of Energy Engineers (AEE)

Past Projects / Markets:

Central Regional School District NJ ESIP - Phase 1	K-12 School	NJ	\$	3,146,635
Teaneck Public Schools Board of Education NJ - ESIP - Phase 1	K-12 School	NJ	\$	7,562,750
Paterson Public Schools NJ - Phase 2 - ESIP	K-12 School	NJ	\$	17,293,500
Regional School Unit No. 87 (RSU-87), Maine School Administrative District	K-12 School	ME	\$	6,811,106
SCI Muncy - Department of Corrections, PA	State Govt.	PA	\$	18,305,789
Florida Union Free School District NY - EPC	K-12 School	NY	\$	3,308,443
Baltimore DOT, City of - Phase 2 Street Lights	Local Govt.	MD	\$	2,422,000
City of Baltimore Street Light Conversion - Phase 1	Local Govt.	MD	\$	19,100,000
Lower Merion Township PA	Local Govt.	PA	\$	3,728,695
West Milford Board of Education	K-12	NJ	\$	7,431,015
Baltimore DOT, City of - Phase 2	Local Govt.	MD	\$	2,422,000
Howard County Government - Phase VI	Local Govt.	MD	\$	16,400,000
Montgomery County - Phase 2	Local Govt.	MD	\$	8,972,000
WSSC - Phase 2	W/WW	MD	\$	8,680,000
Ocean City, Maryland, Town of	City Govt.	MD	\$	4,520,884
Montgomery County - Phase 1	Local Govt.	MD	\$	4,229,294
Virgin Island Street Lighting - USVI	Local Govt.	VI	\$	10,000,000

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Stephen Richmond, CEM, LEED GA, Project Delivery Manager

Steve is a seasoned construction professional with over 30 years of experience, having managed over one hundred projects over the course of his career. In his current role as a Project Delivery Manager for ESG, Steve supports project managers, construction managers and the delivery team during the implementation of projects, ensuring each project is completed on time. He manages the monitoring of the labor, material, project modifications, estimate reviews, scope reviews, contractors and suppliers for proposals, and works with the engineering group to develop changes to ensure financial achievement goals. He establishes staffing needs for the construction group as required to meet business plan; arranges for recruitment or assignment of construction personnel; ensures smooth transition between engineering and project manager. Before joining ESG, Steve worked at Johnson Controls, Inc., where he managed the execution of performance contracting and major retrofit projects. Steve holds a B.S. in Industrial Technology from Kean University with a specialization in Mechanical Contracting.

Certifications:

Certified Energy Manager (CEM); Leadership in Energy and Environmental Design Green Associate (LEED GA); OSHA 30-hour General Industry Certification

Professional Affiliations:

Association of Energy Engineers (AEE)

Past Projects / Markets:

Central Regional School District NJ ESIP - Phase 1	K-12	NJ	\$	3,146,635
Florida Union Free School District NY - EPC	K-12	NY	\$	3,308,443
Paterson Schools NJ - ESIP - Phase 2	K-12	NJ	\$	17,293,500
Regional School Unit No. 87, ME School Administrative District	K-12	ME	\$	6,811,106
SCI (State Correction Institution) at Muncy	State Govt.	PA	\$	18,305,789
Springfield Township PA - Phase 1 - LED Street Lighting	Local Govt. - City	PA	\$	786,760
Teaneck Public Schools Board of Education NJ - ESIP - Phase 1	K-12	NJ	\$	7,562,750
Hanover Fire & Rescue Commission PA - Fire Stations	Local Govt. - City	PA	\$	215,040
City of Baltimore Street Lights	City Govt.	MD	\$	2,422,000
Hempstead Union Free School District	K-12	NY	\$	11,950,645
King's Park Central School District	K-12	NY	\$	8,315,713
Marlboro Township Board of Education	K-12	NJ	\$	19,795,045
Norwood Borough	City Govt.	PA	\$	402,674
SCI Muncy	Corrections	PA	\$	18,305,789
Springfield Township	City Govt.	PA	\$	3,800,000
West Milford Board of Education	K-12	NJ	\$	7,431,015
Wyoming County Schools	K-12	WV	\$	4,033,074
Lower Merion Township	Local Govt. - City	PA	\$	11,950,000
DCNR West – PA GESA 4	State Govt.	PA	\$	5,533,648
Freeport UFSD NY	K-12	NY	\$	6,283,913
Harrison County BOE - Phase 3	K-12	WV	\$	3,832,177
Harrison County BOE - Phase 4	K-12	WV	\$	5,746,335
Long Branch PS BOE	K-12	NJ	\$	9,989,488
Montgomery County - Phase 2	Local Govt. – Co.	MD	\$	8,352,000
Morris Hills BOE, RD	K-12	NJ	\$	9,280,074
Mountain View School District	K-12	PA	\$	8,557,062
Paterson SD Roof & Solar	K-12	NJ	\$	1,929,750
WSSC - Phase IIF	Local Govt.	MD	\$	8,680,000
Butler Public Schools	K-12	NJ	\$	1,619,518

Dan Khuu, CEM, Senior Performance Engineer

Dan is an engineering professional with over 25 years of experience in the energy services industry. In his role with ESG, Dan helps clients identify efficiency measures that will improve their infrastructure and reduce energy and operating costs. Dan has worked on a number of projects for ESG, including ones for the Beecher Road School in Connecticut, the Scranton Cultural center in Pennsylvania, the University of Massachusetts, and numerous others. Before he joined ESG, Dan worked for Honeywell International and Johnson Controls, Inc., where he managed energy projects. Dan holds a B.S. in Mechanical Engineering from the Rochester Institute of Technology.

Certifications: Certified Energy Manager (CEM)
Professional Affiliations: Association of Energy Engineers (AEE)

Past Projects / Markets:

Florida Union Free School District NY - EPC	K-12 Schools	NY	\$	3,308,443
Hempstead Union Free School District	K-12	NY	\$	11,950,645
King's Park Central School District	K-12	NY	\$	8,315,713
SCI Muncy	Corrections	PA	\$	18,305,789
DCNR West – PA GESA 4	State Govt.	PA	\$	5,533,648
Butler BOE Public Schools	K-12	NJ	\$	1,619,518
Sayville School District	K-12	NY	\$	6,151,771
City of Middletown	Local Govt.	NY	\$	12,675,618
Montgomery County - Phase I	Local Govt.	MD	\$	4,229,294
SCI Dallas – Correctional Facility	State Govt.	PA	\$	20,434,067
Beecher Road School	K-12	NJ	\$	12,901,603

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Ron Rychel, Senior Project Manager

As a Senior Project Manager, Ron oversees the development of many projects in the Midwest region. He oversees the Project Managers during contract negotiations, project installation, and budgeting. Ron helps identify operational costs and energy usage that can be cut. He also directs management teams and oversees the development of specification writing and subcontractor evaluation. Ron maintains a direct line of contact for the customer and relays all necessary information, including project updates, and resource needs. He also oversees the completion of the project and ensures that energy cost projects meet savings guarantees. Ron has many years of experience in construction management and directing cross-functional project management teams on projects for the Akron Metropolitan Housing Authority, Saginaw Housing Commission, the Department of Veteran Affairs, Niles Library, Grafton Prisons, Franklin County, Cloverleaf Schools, and Kenyon College. Ron is OSHA 30-Hour General Industry Certified and holds a Bachelor of Business Administration from Kent State University.

Projects:

- Onsted Community Schools, Michigan
- Madison School District, Michigan
- Fulton County, Ohio

Certifications:

OSHA 30-Hour General Industry Certified

Past Projects / Markets:

SCI (State Correction Institution) at Muncy - GESA	State Govt.	PA	\$	18,305,789
Sands Creek Schools	K-12	MI	\$	1,900,000
Madison Schools	K-12	MI	\$	1,800,000
Ionia Prison Complex Project, 5 sites Ionia, MI	Corrections	MI	\$	35,000,000
Wayne State University	Higher Ed	MI	\$	1,100,000
Fulton County	State Govt. - County	OH	\$	1,300,000
Onsted Community Schools	K-12	MI	\$	2,900,000
Kenyon College	Higher Ed	OH	\$	8,000,000
Grafton Prison Project	Corrections	OH	\$	7,000,000
Franklin County Project	State Govt. - County	OH	\$	8,000,000
Lorain County Vocational School.	K-12	OH	\$	5,000,000
Akron Metropolitan Housing Authority	State Govt.	OH	\$	15,000,000
Vigo County Court House	State Govt. - County	IN	\$	5,000,000
Department of Military Affairs, National Guard Armories	State Govt.	PA	\$	5,000,000

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Response to Request for Quotes for a Guaranteed Energy Savings Project

b. Entity's financial ability to provide guarantee

ESG's audited financial statements, which demonstrate our financial ability to provide savings guarantees, are located on the USB copy of the Technical section due to the size of the report. As indicated in our financial statements, ESG is a profitable and viable company. Beyond our own financial strength, ESG is a subsidiary of CenterPoint Energy, Inc. (NYSE: CNP). Headquartered in Houston, Texas, CenterPoint Energy, Inc. is an energy delivery company with regulated utility businesses in eight states and a competitive energy businesses footprint in nearly 40 states. Through its electric transmission & distribution, power generation and natural gas distribution businesses, the company serves more than 7 million metered customers primarily in Arkansas, Indiana, Louisiana, Minnesota, Mississippi, Ohio, Oklahoma and Texas. CenterPoint Energy's competitive energy businesses include energy-related services, energy efficiency and sustainability solutions, and owning and operating intrastate natural gas pipeline systems that help fund utility operations. With approximately 9,600 employees and nearly \$33 billion in assets, CenterPoint Energy and its predecessor companies have been in business for more than 150 years. For more information, visit CenterPointEnergy.com. ESG's business is focused on energy-efficiency and sustainability projects with state and local government customers and the federal government. Our projects are secured by payment and performance bonds from our long-time surety, Liberty Mutual. ESG has bonding capacity of \$500 million, which has been sufficient for all bonding needs to date, but it is not meant to imply a maximum level of capacity. Needs beyond \$500 million will be favorably considered by Liberty Mutual, thereby enhancing our ability to guarantee savings, arrange financing, and obtain bonding – all of which are critical to successful energy performance contracting. Liberty Mutual has rendered an opinion that ESG is financially viable and bondable. This affords our customers the opportunity to partner with ESG at the lowest risk to their operations and reputation. In our history, no bonds have been revoked. Listed below are several ESG projects and their project value and the annual guaranteed savings value requested by the RFQ.

SIMILAR ESG PROJECTS AND THEIR SAVINGS GUARANTEES		
Project	Project Value	Guaranteed Annual Savings
SCI Dallas, Dallas PA	\$19,957,577	\$2.09 M
SCI Muncy, Muncy, PA	\$18,305,067	\$1.45 M
Ionia Complex – Michigan State Dept. of Corrections	\$34,527,610	\$3.87 M
Kentucky State Department of Corrections (Phase 1)	\$12,665,428	\$1.13 M
Kentucky State Department of Corrections (Phase 2)	\$14,320,862	\$1.27 M
Ohio Department of Rehabilitation & Corrections	\$13,521,663	\$1.18 M
Department of Conservation and Natural Resources, PA	\$5,533,648	\$303K
Baltimore City Dept. of Transportation, MD	\$14,988,426	\$689K
Howard County, MD	\$8,200,000	\$488K
City of Middletown, NY	\$12,700,000	\$1.05 M
Frederick Winchester Service Authority, VA	\$46,500,000	\$2.47 M

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Response to Request for Quotes for a Guaranteed Energy Savings Project

c. Entity's Resource Availability (Capacity)

Energy Systems Group is in a growth mode and continues to add additional personnel on a monthly basis thus allowing for more capacity on a regular basis. Listed below is the DGS recommended completed Capacity Calculation.

CAPACITY CALCULATION	
3 Year Average Sales	\$292,700,000
3 Year Average Committed Backlog	-\$85,000,000
Capacity	\$207,700,000

d. Entity's Statement of Readiness and Commitment of Resources per the RFQ Project Schedule

Energy Systems Group, LLC certifies that all personnel assigned to this project as listed on our organizational chart, included in Section 2-5.1 Project Management Team Overview, are fully committed to this project and will be 100% available to fulfill all obligations concerning the implementation of this project as outlined in Section 2-5.3.

e. Entity's Notification of Default or Debarment

This statement is to certify that Energy Systems Group, LLC (ESG) certifies it is not currently under suspension or debarment by the Commonwealth of Pennsylvania, or any other state or federal government. There are no indictments or convictions related to ESG, its officials or any other individuals who have or have had an ownership stake in ESG for the last five years.



October 5, 2020

Becky Tomlinson
403 North Office Building
401 North Street
Harrisburg, Pennsylvania 17120

Subject: *“Proposers Notification and Statement as Required in the Response to Request for Quotes for A Guaranteed Energy Savings Project at SCI Fayette, Project No. GESA 2020-1”*

Dear Ms. Tomlinson:

Energy Systems Group, LLC (ESG), is pleased to provide our written statement for the above referenced Energy Savings Improvement Program with the Department of General Services and SCI Fayette. As requested in the RFQ, the following is submitted.

Section 2-5.4.d Proposer Statement of Readiness and Commitment of Resources

Per the Request of the RFQ DGS GESA#2020-1, This letter is to certify that Energy Systems Group, LLC (“ESG”) is confirming that the persons ESG has identified in the RFP Response are available and will be committed to the project for the time period(s) referenced in *Section 2-5.3 Project Schedule of the response*, and that the Resource Availability referenced in *Section 2-5.4.c of the response*, will be committed to the projects, as referenced in the RFP Project Schedule and Work Plan.

Section 2-5.4.e Proposers Notification of Default and Debarment

Per the Request of the RFQ DGS GESA#2020-1, this letter is to certify that Energy Systems Group, LLC (“ESG”) is not currently under suspension or debarment by the Commonwealth of Pennsylvania, any other state or the federal government. There are no indictments or convictions related to ESG, its officials or any individuals who have or have had an ownership stake in ESG in the last five years

Thank you for your time and consideration. We look forward to your acceptance of our qualifications and the opportunity to compete in the next stage of the process.

Sincerely,

A handwritten signature in blue ink that reads 'Steve Pride'.

Steven D. Pride
Senior Vice President

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project

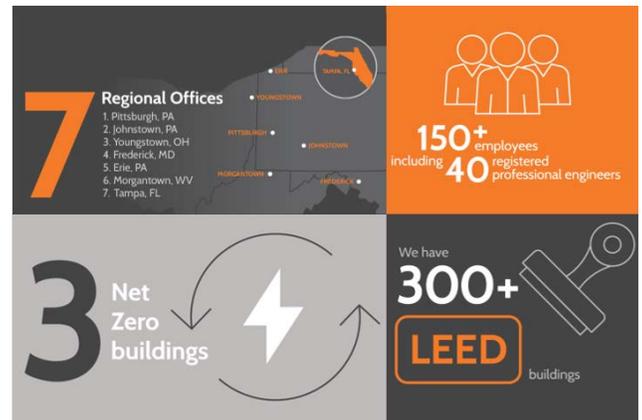
Note: ESG intends to utilize either CJL Engineering or Entech Engineering as our Design Consultant on SCI Fayette, dependent on whether one or the other might be selected as the DGS Energy Consultant for the project.

a. Firm's Experience with GESA projects



CJL Engineering – Firm Profile

Established in 1938, CJL Engineering is a full service, mechanical, electrical, plumbing, fire protection, and civil/structural consulting engineering firm known for mastering the most challenging projects in the region. With offices in western Pennsylvania, eastern Ohio, northern West Virginia, Maryland and a satellite office in Florida, our super-regional focus has enabled us to become one of the preeminent MEP firms in the industry, proudly serving a wide range of specializations and clients.



CJL Engineering – Past GESA Experience

SCI Houtzdale, DGS GESA 2018-1

Date: 2018
Owner: SCI Houtzdale
Contact: Douglas G. Hatcher
Amount: \$30M
Description: Energy Consulting Services by the Department of Corrections, SCI Houtzdale, PA as the Certified Energy Consultant for The State of Pennsylvania, CJL Engineering sits on the Commonwealth's side of the table as the energy expert to review, evaluate, support documentation & ensure that the ESCO contract & energy conservation measures (ECM) are in compliance.
Status: In Progress

SCI Muncy, DGS GESA 2017-2

Date: 2017
Owner: SCI Muncy
Contact: Douglas G. Hatcher
Amount: \$18M
Description: Consulting Services by the Department of Corrections, SCI Muncy, Lycoming County, PA. as the Certified Energy Consultant for The State of Pennsylvania. CJL Engineering sits on the Commonwealth's side of the table as the energy expert to review, evaluate, support documentation and ensure that the ESCO and energy conservation measures are in compliance.
Status: In Progress

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Response to Request for Quotes for a Guaranteed Energy Savings Project

The Pennsylvania State University, Energy Savings Program (ESP)

Date: 2016
Owner: The Pennsylvania State University,
Contact: Matt Leah, Energy Program Engineer
Amount: Open-End Contract
Description: The Team of Wayne Crouse, Inc. and CJL Engineering have been selected as a team of pre-approved firms for The Pennsylvania State University's Energy Savings Program to identify and perform design and construction projects on a DB/GMP form-of-agreement for a period up to 5 years. CJL has performed work on the following PSU facilities: Pasquerilla Spiritual Center, Paterno Library, Rackley Building, Chambers Building and East and West Steam Plant.
Status: In Progress

The Culinary Institute of America, Energy Consultant and Master Energy Plan Professional

Date: 2018
Owner: The Culinary Institute of America (CIA)
Contact: Mr. Evin Lederman, Director of Facilities
Amount: Gross Const. Cost: Estimated to be \$10-\$15 million
Description: CJL Engineering (CJL) was contracted to evaluate & provide CIA with a "long term" view of their facilities & to act as the owner's representative to identify the Energy Conservation Measures (ECM's) to develop an RFP for ESCO Contractors to bid. Provide energy modeling calculations & Return on Investment data to help the owner decide on the most effective/efficient path to take to mitigate current & future energy costs.
Status: Completed on schedule

Carnegie Museum of Natural History, Heating/Cooling Plant Energy Master Plan

Date: 2015
Owner: Carnegie Museum of Natural History
Contact: Frank Cardiello
Amount: \$3.8 Million
Description: CJL recommended and designed removal of counter-productive chilled water return by-pass line. Reduction in peak load requirement from 2,000 Tons to 1,550 Tons. Consolidation of primary/secondary/tertiary chilled water pumps (450 HP total) to a variable primary pumping arrangement (250 HP max). 850-Ton Chiller with Variable Speed Drive. 1,250-Ton Constant Speed Chiller. Variable Speed Condenser Water Pumps, Variable Speed Cooling Tower Fans, inter "Free-Cooling" Heat Exchanger. Low condenser water temperature sequences to allow for significant reduction in consumed chiller energy. Original Plant Efficiency was 1.5 KW/Ton, New at peak loading confirmed at 0.83 KW/Ton (Chillers, Pumps, Cooling Towers) CJL modeled energy reductions and received approval by 3rd party audit, allowing for the Museum received an Act 129 Energy Rebate from Duquesne Light in the amount of \$124,000. Year to date Energy Savings has exceeded \$750,000.
Status: Completed on schedule

Eastern Virginia Medical School (EVMS), Energy Performance Contract

Date: 2014
Owner: Eastern Virginia Medical School
Contact: Bill Colehower
Amount: \$9.5 Million
Description: CJL was contracted for system design services, along with the procurement and selection of an Energy Performance Contract Provider through an RFP process. The project was to reduce campus building operational costs. A mechanical systems engineering study was also performed for the renovation of Lewis Hall, a 125,000 sf. medical research and teaching facility. HVAC renovations increased energy efficiency, along with improving automatic temperature control & ventilation systems
Status: Completed on schedule

a. Individual Qualifications

James Vizzini, P.E., LEED® AP

Project Responsibilities: Partner-In-Charge, Project Manager

Time with Firm: 27 years

Experienced with GESA projects: Yes

Education or Training: Bachelor of Science, Mechanical Engineering Technology, University of Pittsburgh at Johnstown, 1987

Relevant Information: Jim maintains a close connection to all facets of his projects. His responsibilities continue to include on-site surveys, systems comparisons, scope determination, plan and specifications review as well as construction inspection. Jim also supervises HVAC systems facility evaluation and design for commercial and institutional projects, various schools, and universities.

Cris Harbaugh, P.E., LEED® AP, BD+C, BEAP, CPMP, CHC

Project Responsibilities: Mechanical Engineer

Time with Firm: 2.5 years

Experienced with GESA projects: Yes

Education or Training: Bachelor of Science, Mechanical Engineering Technology, Minor: Physics, University of Pittsburgh at Johnstown, 2008 / Associates Degree, Specialized Technologies, Computer Aided Drafting and Design (CADD), Pittsburgh Technical Institute, 1998

Relevant Information: Cris has provided technical engineering and commissioning services for various public and private institutions. His has extensive experience as a commissioning agent as well as lead Mechanical Engineer and Project Manager for multiple projects and clients in the construction industry with over 18 years of professional experience. In addition, Cris is highly active in professional societies and industry events to remain current on industry advancements.

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Christy Cramer, P.E., LEED® AP, BD+C

Project Responsibilities: Energy Modeling

Time with Firm: 12 years

Experienced with GESA projects: Yes

Education or Training: Bachelor of Science, Mechanical Engineering, Grove City College, 2002

Relevant Information: Over the past twelve years, her focus has branched from design to in-depth energy modeling and analysis for the purposes of LEED® certification, grant applications, plant and system comparison, economic payback analysis and as an aid to architectural design.

b. Statement of Readiness and Commitment of Resources

CJL Engineering confirms the person(s) identified in the RFQ response are available and will be committed to the project for the duration described in the project schedule.

c. Entity's Notification of Default or Debarment

CJL Engineering has not defaulted on any contracts and has not been disbarred within the past five years.

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1
Response to Request for Quotes for a Guaranteed Energy Savings Project

Name of Project Team Member	James Vizzini, P.E., LEED® AP
Current Job Title	Managing Partner
Job Responsibilities	Jim is responsible for management decisions, overseeing current projects and maintaining relationships with architect and clients. His responsibilities include on-site surveys, systems comparisons, scope determination, plan & specifications review as well as construction inspection. These projects have ranged from large equipment replacement such as chillers, cooling towers, boilers & air handling units, entire HVAC systems design to district heating & cooling plants. Jim has been responsible for over \$2.5 billion of mechanical & electrical construction projects.
Primary Office Location	Johnstown, PA
Employment History Company Name: Primary Job Responsibilities:	CJL Engineering.: Managing Partner (1992 – Present)
Educational Background List all academic degrees, certifications, professional affiliations, relevant publications and technical training.	Bachelor of Science, (B.S.), Mechanical Engineering Technology, University of Pittsburgh, Johnstown, PA ASHRAE Member / U.S. Green Building Council (USGBC) Building Commission / Construction Specifying Engineer October, 2006 Featured in: “Full of Hot Air?” The Chevron Science Center Renovation, University of Pittsburgh Presenter: International Association of Museum Facility Administrators Annual Conference (Carnegie Museum of Natural History, Chilled water plant Upgrade) Pittsburgh, PA - 2019 Energy and Education Conference (Geothermal Design) St. Francis University, Loretto, PA - 2009
Additional energy projects this individual has been involved with other than noted above.	Mt. Lebanon School District, Energy Project \$6M Project: The Mt. Lebanon School District engaged CJL to perform a construction logistics and cost estimate study. CJL was then hired to be the Engineer of Record. The project consisted of adding air conditioning to 9 schools in Mt. Lebanon School District. From the design start date, the project was completed in only ten months with no change orders. City of Chesapeake City Hall Scope: Energy Performance Contract to completely upgrade the HVAC systems to achieve maximum energy savings. Duquesne University Energy Center \$11.5M Scope: The project consisted of a review of the existing Energy Center to house the new condenser water equipment & electrical panels. Project was phased to allow the existing cooling towers to remain operational while the new condenser water system was installed. The chillers are being individually phased over to the new condenser water system. The field fabricated cooling towers were designed to provide the University the flexibility to expand in the future when the cooling load increases. The expansion nearly tripled the capacity of the energy center's boilers while cutting its natural gas consumption.

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Response to Request for Quotes for a Guaranteed Energy Savings Project

Name of Project Team Member	Cristian Harbaugh, P.E., LEED® AP, BD+C, BEAP, CPMP, CHC
Current Job Title	Senior Associate Mechanical Engineer
Job Responsibilities	He has provided technical engineering and commissioning services for various public and private institutions. His extensive experience as a commissioning agent as well as lead Mechanical Engineer and Project Manager for multiple projects and clients in the construction industry with over 18 years of professional experience. In addition, Cris is highly active in professional societies and industry events to remain current on industry advancements.
Primary Office Location	Johnstown, PA
Employment History Company Name: Primary Job Responsibilities:	CJL Engineering: Senior Associate Mechanical Engineer (2017 – Present) NV5: Mechanical / Energy Engineer (2016 – 2017) H.F. Lenz Company: Associate Mechanical Engineer (1999 – 2016)
Educational Background List all academic degrees, certifications, professional affiliations, relevant publications and technical training.	Bachelor of Science, (B.S.), Mechanical Engineering, Minor: Physics, University of Pittsburgh, Johnstown, PA Associates Degree, Specialized Technologies, Computer Aided Drafting and Design, Pittsburgh Technical Institute, Pittsburgh, PA USGBC: LEED® Accredited Professional, Building Design and Construction (LEED® AP BD+C) ASHRAE Certified: Building Energy Assessment Professional (BEAP) ASHRAE Certified: Commissioning Process Management Pro. (CPMP) ASHE: Certified Healthcare Constructor (CHC)
Additional energy projects this individual has been involved with other than noted above.	David L. Lawrence Convention Center, Chiller Plant Load Analysis, Pittsburgh, PA Metropolitan Life Insurance Company, Energy Analysis and Building Automation System upgrade, Johnstown, PA ENERGY STAR Building Label validation and LEED® EB evaluation and documentation services, Columbus, OH
Indicate the total years of relevant energy related experience for this individual.	10 years

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1
 Response to Request for Quotes for a Guaranteed Energy Savings Project

Name of Project Team Member	Christy Cramer, P.E., LEED® AP, BD+C
Current Job Title	Associate Mechanical Engineer
Job Responsibilities	Christy has a background in HVAC system design for a diverse range of projects from universities to laboratories and K-12 schools to hospitals. Over the past eleven years, her focus has branched from design to in-depth energy modeling and analysis for the purposes of LEED® certification, grant applications, plant and system comparison, economic payback analysis and as an aid to architectural design.
Primary Office Location	Pittsburgh, PA
Employment History Company Name: Primary Job Responsibilities:	CJL Engineering: Associate Mechanical Engineer (2007-Present) Burt Hill: Engineer-In-Training (2002-2007)
Educational Background List all academic degrees, certifications, professional affiliations, relevant publications and technical training.	Bachelor of Science (B.S.), Mechanical Engineering, Grove City College, Grove City, PA LEED® Accredited Professional LEED® Building Design + Construction
Additional energy projects this individual has been involved with other than noted above.	Union Trust Building, LEED® Silver, Pittsburgh, PA, LEED®: Administrative and energy modeling services were provided for LEED® Core & Shell v2009 certification Wooster Community Hospital, Wooster, OH: A 350,000 SF hospital campus and 84,000 SF expansion. Provided central chiller plant energy modeling to inform plant upgrade decisions and payback analysis. Modeled the campus plant and new North Expansion building for Act 129 Tax incentives Passavant Hospital, UPMC, Pittsburgh, PA, LEED® Certified: A 300,000 sf hospital expansion and central plant. Energy modeling services and associated LEED® documentation were provide for a LEED® Certified project rating
Describe the specific role and responsibilities this individual had for each listed project.	Christy provided energy modeling services and associated LEED® / Act 129 credit documentation.
Describe any other relevant technical experience.	Building Energy Modeling LEED® Documentation, Energy Audits, HVAC Design and Feasibility Analysis
Indicate the total years of relevant energy related experience for this individual.	10 years

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

201 Penn Street | Suite 300 | P.O. Box 32 | Reading, PA 19603



September 21, 2020

Tony Prelec
Energy Systems Group
P.O. Box 285
Portersville, PA 16051

**Re: Response to Request for Information
PADGS GESA Project at State Correctional Facility Fayette**

Dear Mr. Prelec:

Please find following our responses to your request for information regarding Entech's GESA Experience. Thank you for the opportunity to team with you for this important project.

1. *Experience - State of Pennsylvania Guaranteed Energy Savings Act (GESA) projects (or similar energy/correctional facility projects) on which we have worked:*

PA Department of Corrections - GESA Program

State Correctional Institute - Dallas, PA

Date: 2016

Project Status: Completed on Schedule

We completed a Utility Master Plan (UMP) to evaluate options for upgrading the central utility plant at SCI-Dallas. Once the State selected the options from the UMP, we teamed with Energy Systems Group (ESG) on an Investment Grade Audit (IGA) to develop the scope of work for the GESA project. ESG was selected to be the ESCO for the project, and we continued to work with them on the design of the steam plant as well as an upgrade to the wastewater treatment plant. The selected Energy Conservation Measures (ECMs) replaced SCI-Dallas' existing coal with new natural gas and oil-fired boilers, which will provide \$1.8M in energy savings annually. Our modifications to their wastewater treatment plant included sludge process improvements to reduce the liquids in the sludge, thus reducing the cost to dispose of the sludge. The sludge reduction will result in a 34% annual savings or \$83,000 in sludge disposal fees.

Project Amount: \$19.9M

Contact: Douglas Hatcher 717.787.4762 dhatcher@pa.gov

PA Department of Corrections - GESA Program

State Correctional Institute - Houtzdale, PA

Date: Current

Project Status: Construction Start Date Estimated 4th Quarter 2020/Completion Date Projected 2021

Entech Engineering, Inc.

Reading | Hawley | Lititz | Mountaintop | Pittsburgh | Pottsville | State College | 1.800.825.1372 | www.entecheng.com

energysystemsgroup.com



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Section 2 – Design Consultant | Page 47

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



We were selected to assist *SCI-Houtzdale* in becoming as energy efficient as possible through installation of energy and water conservation measures, upgrades, and implementation of optimal operations and maintenance procedures. We teamed with the ESCO, The Efficiency Network (TEN), to conduct an IGA at the correctional facility. We began by completing a UMP to evaluate several options for renovating the central heating system and to develop core ECMs. Once the State selected the options from the UMP, we then performed the IGA to develop the scope of work and are providing engineering services for the design and construction of steam and chilled water plant and piping upgrades.

Project Amount: TBD

Contact: Douglas Hatcher 717.787.4762 dhatcher@pa.gov

State of New Jersey – P4P Program

New Lisbon Developmental Center, New Lisbon, NJ

Date: 2010

Project Status: Completed on Schedule

When the State of New Jersey noticed its New Lisbon Developmental Center (NLDC) was incurring higher energy bills than other facilities of similar size and type, they selected Entech to perform an energy audit to identify energy conservation measures (ECM), savings projections, implementation/construction costs, and payback calculations. After the energy audit, we recommended projects with an estimated cost of over \$14.1M, which would save the NLDC over \$2.3M annually, resulting in a 6.1 year payback period. After the audit, the NLDC implemented all recommended energy projects. As part of this effort, we became a "P4P Partner" and oversaw the design and construction of the project, including the post-retrofit M&V necessary to apply for the rebates through the P4P program, through which New Lisbon was awarded \$2 million. Final construction costs were lower than anticipated, and annual energy savings were confirmed slightly higher than our \$2.3M per year estimate.

Project Amount: \$14.1M

Contact: State of New Jersey, Department of Treasury, Division of Property Management and Construction
Richard Flodmand, Deputy Director, Contract Administration 609-984-3629
richard.flodmand@treas.state.nj.us

2. *Qualifications – Please see attached resumes.*
3. *Statement of Readiness and Commitment of Resources - The Entech personnel identified are available and will be committed to the SCI Fayette project for the time-period(s) referenced in the RFQ project schedule.*
4. *Notification of Default or Debarment - Entech Engineering, Inc. has neither defaulted on any contract nor faced debarment.*

Entech Engineering, Inc.

Reading | Hawley | Lititz | Mountaintop | Pittsburgh | Pottsville | State College | 1.800.825.1372 | www.entecheng.com

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Section 2 – Design Consultant | Page 48

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



Bryan C. Haag PE, LEED AP® Principal

summary

With almost 20 years of experience, Bryan focuses on the opportunities to combine deferred maintenance and energy reduction projects in order to help our clients achieve more with their financial resources. His background in building energy audits and master planning allows him to integrate building condition data with the central systems in order to achieve a comprehensive view of how potential building upgrades impact central systems and can reduce costs. He also understands cost-effective approaches to upgrading both building HVAC and campus central utility systems.

education

- ▶ Drexel University | B.S. Architectural Engineering – Mechanical Engineering Focus

registrations & certifications

- ▶ Registered Professional Engineer in PA
- ▶ LEED® Accredited Professional

select project experience

State Correctional Institute | Dallas, PA

Utility Master Plan, Investment Grade Energy Audit, and Design

Utility Master Plan to evaluate options for the central utility plant at the correctional facility. Once the State selected the options from the UMP, we teamed with an ESCO (Energy Service Company) on an Investment Grade Audit (IGA) to identify energy conservation measures for central heating, wastewater treatment, water, and lighting, and to develop the scope of work. Ultimately, the ESCO was selected to complete the project, and we continued to work with them on the design of new gas boilers at the central plant and modifications to improve the sludge dewatering process at the wwtp.

State Correctional Institute | Houtzdale, PA

Energy Reduction/Central Plant Conversion Project

Engineering services to support The Efficiency Network's work with an energy performance contract for the State Correctional Institute located in Houtzdale, PA. The project started with the development of an Investment Grade Audit (IGA) which defined the scope of work for design and construction. We evaluated several options to convert the central plant from coal to another fuel source. We were the lead design team for the investment grade audit as well as lead design engineer for the project.

State Correctional Institute Waymart | Waymart, PA

Boiler Replacement

Life-cycle cost analysis, development of four schematic design options and opinion of probable cost for each, and design development of the selected option. Included a new 4,400 SF masonry building for two 500 HP firetube dual fuel (gas/oil) boilers, one relocated 800 HP CB boiler and deaerator, a control room, changing room, one staff restroom, one inmate restroom, one office, and space for expanded metal tool cages.

New Lisbon Development Authority | New Lisbon, NJ

Energy Audit

First comprehensive energy audit and utility cost study for the State of New Jersey's government facilities. As a result of the study, we developed an energy cost reduction program that reduced energy consumption, provided great opportunity to reduce the carbon footprint of the New Lisbon campus, and opened direct funding opportunities from the federal government ARRA program.

Pennsylvania Department of Environmental Protection | Harrisburg, PA

Cogeneration and Heating Master Plan for State Correctional Institute – Muncy, PA

Evaluation of options for heating the campus that included a central gas or biomass plant and distributed heating. Each option also required an analysis of combined heat and power, including gas turbine generator sets, micro-turbines, and reciprocating engines.

State of New Jersey | Bridgeton, Cumberland County, NJ

South Woods State prison Energy Audit and Cogeneration Feasibility Study

Energy audit and cogeneration study to identify and quantify potential ECMS and to consider applicable cogeneration strategies for the prison. This study was the first step of the New Jersey Energy Savings Improvement Program (ESIP) and was used to prepare and solicit bids from ESCOs. The scope of work also included the preparation of a metering package that allowed for the bidding and procurement of permanent meters at the Prison. Previously, the only meters that existed were the utility owned gas, water, and electric meters which provided metering for the entire campus.



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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



Mark A. Feeg PE, LEED AP® Senior Project Manager

summary

Mark has 21 years of engineering experience, including working on numerous air quality control (AQC), nuclear projects, and natural gas projects focusing on mechanical systems consisting of wet flue gas desulfurization (WFGD), pulse jet fabric filter (PJFF) baghouses, activated carbon injection (ACI), hydrated lime injection, and heating/ventilating/air conditioning (HVAC). Part of the Facilities Planning and Design Group, he concentrates on dehumidification, HVAC and Energy Savings Improvement Program (ESIP) projects for education and industrial clients.

Entech employee
since 2018

21 years of
experience

education

- ▶ The Pennsylvania State University | B.S., Mechanical Engineering Technology
- ▶ The Pennsylvania State University | A.S., Mechanical Engineering Technology

registrations and certifications

- ▶ Registered Professional Engineer in PA, GA
- ▶ LEED® Accredited Professional

select project experience

State Correctional Institute | Houtzdale, PA Energy Reduction/Central Plant Conversion Project

Engineering services to support The Efficiency Network's work with an energy performance contract for the State Correctional Institute located in Houtzdale, PA. The project started with the development of an Investment Grade Audit (IGA) which defined the scope of work for design and construction. We evaluated several options to convert the central plant from coal to another fuel source. We were the lead design team for the investment grade audit as well as lead design engineer for the project.

County of Berks | Leesport, PA Annex Boiler and Chiller Replacement Project

Project Manager responsible for the design, bid services and construction to install natural gas fired boilers and water heaters within the Annex building and remove the building from the campus central steam system. New chillers were installed, mechanical rooms renovated and control systems upgraded along with other associated HVAC improvements. The scope of work included services for asbestos and lead paint testing in the construction areas of the building.

County of Berks | Reading, PA Berks Heim Boiler Design

Schematic design, design development, preparation of construction documents, and phasing plan development for the installation of a decentralized heating system for Berks Heim, following the Utility Master Plan that Entech had completed previously for the North Campus.

State Correctional Institute Waymart | Waymart, PA Boiler Replacement

Life-cycle cost analysis, development of four schematic design options and opinion of probable cost for each, and design development of the selected option. Included a new 4,400 SF masonry building for two 500 HP firetube dual fuel (gas/oil) boilers, one relocated 800 HP CB boiler and deaerator, a control room, changing room, one staff restroom, one inmate restroom, one office, and space for expanded metal tool cages.

DeSales University | Center Valley, PA Wills Hall Boiler Replacement Project

Engineering services to replace the existing conventional efficiency boiler with two new natural gas condensing boilers with a minimum combustion efficiency of 92%. This project was part of an overall HVAC renewal program for Wills Hall.

Kutztown University | Kutztown, PA University Master Plan

Comprehensive campus-wide utility master plan to determine the conditions of the existing utility infrastructure on campus, estimate future needs for the systems, and analyze and compare options for addressing the conditions and needs. Heating, cooling, electrical, IT, water, wastewater, and stormwater were all included.



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Mark D. Ray CEM
Senior Mechanical Designer

summary

Mark has 38 years of experience in mechanical systems design, including plumbing, HVAC, fire protection and underground tank systems. His duties include load analysis, equipment selection, cost estimating, and coordination of details. Construction services include submittal review, coordination meetings, and site observation. Due to his extensive knowledge of mechanical systems, Mark lends his in-depth experience to various assessment and energy projects.

education

- ▶ The Pennsylvania State University | A.S., Mechanical Engineering

registrations & certifications

- ▶ Certified Energy Manager

select project experience

Entech employee since 1982

38 years of experience

Certified Energy Manager

State Correctional Institute | Houtzdale, PA
Energy Reduction/Central Plant Conversion Project

Engineering services to support The Efficiency Network's work with an energy performance contract for the State Correctional Institute located in Houtzdale, PA. The project started with the development of an Investment Grade Audit (IGA) which defined the scope of work for design and construction. We evaluated several options to convert the central plant from coal to another fuel source. We were the lead design team for the investment grade audit as well as lead design engineer for the project.

State of New Jersey | Bridgeton, NJ
South Woods Prison Energy Audit

Field operations and associated system and energy use evaluations of the facility, in order to determine if an energy conservation project could be developed to improve the facility's systems and operations.

County of Berks | Leesport, PA
Utility Master Plan - North Campus

Inspection and documentation for the utility master plan to identify, map, and assess the campus central heating, electrical, water, and wastewater utilities for Berks County's North Campus, which is host to over a dozen county services/facilities, including a nursing home, prison, community reentry center, and service center annex.

Utility and Emergency Power Assessment – North Campus

Comprehensive review, evaluation, and analysis of the existing electrical services and emergency generation sources at the Berks County Jail, Berks County Community Re-Entry Center, Berks Heim Nursing Home and Residential Care Facility, Berks County Residential Center, Berks County Agricultural Center, Berks County wastewater treatment plant, and central boiler plant. Information gathered from the assessment was analyzed and recommendations were provided to correct any deficiencies noted during the assessment to address desired system improvements. Alternate means of electric generation were suggested to both expand the County's generation capacity and offer cost savings opportunities.

Architect of the Capitol | Washington, DC
Energy Audits

Energy audits of several historic government buildings located on Capitol Hill. The audits included the Jefferson Library of Congress Building, all House Office Buildings, the Capitol Power Plant and other legislative branch buildings. Tasked with composing a significant portion of the energy audit reports the AOC submitted to Congress including energy use and saving calculations, construction costs, and operation and maintenance costs.

Bryn Mawr College | Bryn Mawr, PA
Boiler and Chiller Plant Evaluations and Boiler Replacement

Study to examine various options for boiler and chiller plants and piping distribution systems to serve ten different buildings in the center of campus. Analysis included conceptual drawings, equipment and system sizing, and cost estimates. Replacement of oil-fired hot water boiler with two boilers. Designed drawings for boiler room and basement area.



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Entech employee since 2013

7 years of experience

Michael J. Joppy PE Project Engineer

summary

Michael has seven years of experience performing energy analysis studies by creating energy models and identifying building energy use and performing a variety of engineering services for HVAC and utility projects. He is skilled at conducting evaluations including ComChecks and Hourly Analysis Program (HAP) evaluations to determine building energy usage so that our clients can understand the potential for energy saving options and make more informed decisions as they approach energy reduction on their campuses.

education

- ▶ The Pennsylvania State University | B.S. Aerospace Engineering

registrations & certifications

- ▶ Registered Professional Engineer in PA

select project experience

State Correctional Institute | Houtzdale, PA

Energy Reduction/Central Plant Conversion Project

Engineering services to support The Efficiency Network's work with an energy performance contract for the State Correctional Institute located in Houtzdale, PA. The project started with the development of an Investment Grade Audit (IGA) which defined the scope of work for design and construction. We evaluated several options to convert the central plant from coal to another fuel source. We were the lead design team for the investment grade audit as well as lead design engineer for the project.

State Correctional Institute | Dallas, PA

Utility Master Plan, Investment Grade Energy Audit, and Design

Utility Master Plan to evaluate options for the central utility plant at the correctional facility. Once the State selected the options from the UMP, we teamed with an ESCO (Energy Service Company) on an Investment Grade Audit (IGA) to identify energy conservation measures for central heating, wastewater treatment, water, and lighting, and to develop the scope of work. Ultimately, the ESCO was selected to complete the project, and we continued to work with them on the design of new gas boilers at the central plant and modifications to improve the sludge dewatering process at the wwtp.

State of New Jersey | Bridgeton, Cumberland County, NJ

South Woods State prison Energy Audit

Energy audit to identify and quantify potential energy savings opportunities at the Prison. Also included the preparation of a metering package that allowed for the bidding and procurement of permanent meters at the Prison. Previously, the only meters that existed were the utility owned gas, water, and electric meters which provided metering for the entire campus.

Architect of the Capitol | Washington, DC

Energy Audits/Energy Model Update/Energy Management Plan

Energy audits and energy model updates for historic government buildings on Capitol Hill. Included a multiple building energy audit, evaluating energy use of 16 buildings and providing Energy Conservation Measures to help reduce the overall energy used.

Hazleton School District | Hazleton, PA

Energy Conservation Measure Development

Development of energy conservation measures (ECMs) to support Siemens in their work with the Hazleton School District. Included surveying each district building to understand the existing building HVAC systems and how they are used, developing ECMs for all required buildings, developing savings calculations and cost estimates for all ECMs, and providing pre- and post- utility data analysis.

Kutztown University | Kutztown, PA

University Master Plan

Comprehensive campus-wide utility master plan to determine the conditions of the existing utility infrastructure on campus, estimate future needs for the systems, and analyze and compare options for addressing the conditions and needs. Heating, cooling, electrical, IT, water, wastewater, and stormwater were all included.



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3. CONSTRUCTION - KEY SUBCONTRACTORS

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Energy Systems Group has developed great working relationships with all of our Subcontractors and Partners over the years by working on many Guaranteed Energy Savings Projects and Performance Contracts together. The specific Subcontractors we selected for the SCI Fayette GESA project, listed in the following table, all have proven to be very reliable, timely and most importantly put safety and security first. The other reason we selected each one, is that they stand behind their workmanship, 100%. Their individual Qualification Forms follow the table below:

Firm	Work Scope	Pennsylvania Certifications
Air Management	Mechanical	SB, SDB, VBE
BERT	Plug Load Controls	
Conexus	BMS/Controls	SB
Global Energy Services	Lighting, Water, Building Envelope	SDB
H2O Applied Tech	Water/Steam Traps/Insulation	SDB
ICS	Water/ICON	
Lighting Services Inc. (LSI)	Lighting	SDB
Melink	Kitchen Hood	
Powersmiths	Transformers	
S.P.McCarl & Company	Mechanical	SDB
Zerodraft	Building Envelope	SDB

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project



AIR MANAGEMENT TECHNOLOGIES, INC.
Building Energy & Environmental Services
www.airmanagement.com

Penn State-Hazleton

Date: 2015
Owner: Penn State-Hazleton
ESCO: Johnson Controls
Contract Amount: \$426,670
Description: HVAC Updates
Status: Completed

Pennsylvania State Police Headquarters

Date: 2017
Owner: Pennsylvania State Police
ESCO: Johnson Controls
Contract Amount: \$1,487,000
Description: HVAC Updates
Status: Completed

Pennsylvania-DCNR

Date: 2019
Owner: Pennsylvania-DNCA
ESCO: Energy Systems Group
Contract Amount: \$1,285,000
Description: HVAC Updates
Status: Completed

Whitehall Copley School District

Date: 2014
Owner: Whitehall Copley School District
ESCO: Johnson Controls
Contract Amount: \$767,575
Description: HVAC Updates
Status: Completed

2. Superintendent Qualifications

Supervisor has up to 35 year of experience in mechanical construction.

Air Management Technologies, Inc.
1776 Industrial Boulevard || Lewisburg, Pa 17837
570-523-4822 || www.airmanagement.com

energysystemsgroup.com





AIR MANAGEMENT TECHNOLOGIES, INC.
Building Energy & Environmental Services
www.airmanagement.com

3. Statement of Readiness

Air Management Technologies is available and committed to complete with our under contract Local Steam and Pipefitters union personnel.

4. Workers Compensation Experience Modification Rating

2016	0.880
2017	0.851
2018	0.792
2019	0.990

5. Entity's Notification of Default or Debarment

Air Management has not been debarred and is not in default of any contract.

6. Pennsylvania Certifications

Air Management has the following certifications with the State of Pennsylvania's Department of General Services:

- Small Diverse Business
- Veteran Owned Business

Air Management Technologies, Inc.
1776 Industrial Boulevard || Lewisburg, Pa 17837
570-523-4822 || www.airmanagement.com

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

PA Department of Corrections/SCI Fayette/GESA 2020-1

Response to Request for Quotes for Guaranteed Energy Savings Project

Sub-contractor name: Conexus, Inc.



1. List all Guaranteed Energy Savings Projects you have worked on in the past with the following info for each:

Date:	2020
Owner:	Maryland Department of Corrections-Cumberland Correctional Facility
ESCO:	Noresco
Our contract amount:	\$1,460,000
Description:	A complete BAS retrofit across two separate prison facilities within the complex, including six different buildings-administration, facility support, laundry, gatehouses and gymnasium/multi-purpose/commissary buildings. Work was completed both inside and outside the secure perimeter.
Status:	Completed

Date:	2020
Owner:	Letterkenny Army Depot-Energy Project
ESCO:	Honeywell/SES
Our contract amount:	\$1,750,000
Description:	BAS retrofit and integration of existing controls across a 19 building industrial/military campus. Several buildings are high security and require security clearances to access the buildings. The project also included a complete survey and documentation to create as-builts for the entire network building automation system-both existing and newly installed systems.
Status:	Completed

Date:	2020
Owner:	Carlisle War College/US Army Heritage and Education Center-Energy Project
ESCO:	Noresco
Our contract amount:	\$902,000

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Description:	BAS retrofit in nine buildings on two separate campuses. The work included a new Niagara front-end and integration of existing Johnson Controls systems.
Status:	Completed

Date:	2015
Owner:	Pottstown School District-Energy Project
ESCO:	Reynolds Energy Solutions (now SiteLogiq)
Our contract amount:	\$800,000
Description:	Over three years, the complete replacement of the BAS across the entire school district. The work included retrofits and integrations to Johnson Controls and Andover systems.
Status:	Completed

Date:	2014
Owner:	Southern Lehigh School District-Recommissioning/Energy Project
ESCO:	CM3
Our contract amount:	\$245,000
Description:	Recommissioning and deficiency repairs for BAS in five buildings across the district.
Status:	Completed

Date:	2014
Owner:	Southern Fulton School District-GESA project
ESCO:	Reynolds Energy Solutions (now SiteLogiq)
Our contract amount:	\$395,000
Description:	New BAS in the high school and middle school, including the replacement of Trane controllers on all factory-controlled unit ventilators.
Status:	Completed

Date:	2012
Owner:	Schuylkill IU-Energy Project
ESCO:	Reynolds Energy Solutions (now SiteLogiq)
Our contract amount:	\$316,000
Description:	Retrofit new BAS in an operating school facility, including a new Niagara front-end and controls for AHU's, chilled/hot water systems, VAV boxes and RTU's.
Status:	Completed

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Date:	2011
Owner:	Commonwealth of PA-DOC/SCI Huntingdon-GESA
ESCO:	Noresco
Our contract amount:	\$519,000
Description:	New BAS installed in 6 cell block/housing units, laundry and kitchen/dining inside the secure perimeter.
Status:	Completed

Date:	2009
Owner:	Commonwealth of PA-DOC/SCI Rockview-GESA
ESCO:	Noresco
Our contract amount:	\$510,000
Description:	Retrofit of a new BAS in 11 buildings within the secure perimeter The work including housing units, laundry, chapel, dining, gym/multi-purpose, maintenance, commissary and administration
Status:	Completed

2. Superintendent Qualifications

The basic capabilities and experience of our proposed project team are summarized as follows:

Name	Seth Mills	Joe Scheffey	Keith Gard
Position	Director of Operations	Project Manager	Application Engineer
Tenure with Conexus	12 years	2 years	6 years
Overall Experience	20 years	18 years	12 years
Relevant Experience with GESA Projects	<ul style="list-style-type: none"> • Cumberland Correctional Complex • Letterkenny Army Depot-Energy Project • CWC/USAHEC Energy Project • Pottstown SD-Energy Project • Southern Lehigh • Southern Fulton • Schuylkill IU 	<ul style="list-style-type: none"> • Cumberland Correctional Complex • Various energy projects working for Siemens. 	<ul style="list-style-type: none"> • Cumberland Correctional Complex • Letterkenny Army Depot-Energy Project • CWC/USAHEC Energy Project

Conexus has 23 team members, including seven factory-trained technicians, six field installers. The installation for the SCI Fayette project will be subcontracted to Freestate Electric, who was also the installer for Conexus on the Cumberland Correctional Complex project in Cumberland, MD.

3. Statement of Readiness and Commitment of Resources

Conexus, Inc., certifies that it has sufficient capacity and readiness of personnel to fulfill all obligations concerning the implementation of this project as required.

4. Workman's Compensation Experience Modification Rating

- a. 2016-0.890
- b. 2017-0.847
- c. 2018-1.00
- d. 2019-0.880

5. Entity's Notification of Default or Debarment:

This statement is to certify that Conexus, Inc., certifies it is not currently under suspension or debarment by the Commonwealth of Pennsylvania, or any other state or federal government. There are no indictments or convictions related to Conexus, Inc., its officials or any other individuals who have or have had an ownership stake in Conexus, Inc.

6. Pennsylvania Certifications-PA Small Business

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

Sub-Contractor: Global Energy Services

**20 WEST AYLESBURY ROAD
TIMONIUM, MD 21093,
1 (888) 909-1660 Fax: 410-847-9867**

1. **Experience on GESA Projects over \$5M**
Note: As a Subcontractor we do not always know the total value of the project, therefore amounts shown reflect our portion of the overall GESA project

Project: SCI Dallas
Date: 2015
Owner: PA Department of Corrections
ESCO: Energy Systems Group
Contact: Tony Prelec
Amount: \$1,100,00
Description: Interior and Exterior LED Lighting, Controls
Status: Complete

Project: PA State Police HQ
Date: 2016
Owner: PA State Police
ESCO: Johnson Controls
Contact: John Siric
Lighting Amount: \$137,000
Water Amount: \$65,502
Building Envelope Amount: \$39,950
Description: Interior and Exterior LED Lighting, Controls, Water Conservation, Building Envelope
Status: Complete

Project: PA Western State Parks
Date: 2018
Owner: PA State Parks & Forest Districts
ESCO: Energy Systems Group
Contact: Tony Prelec
Lighting Amount: \$1,486,922
Water Amount: \$84,776
Building Envelope Amount: \$485,213
Description: Interior and Exterior LED Lighting, Controls, Water Conservation, Building Envelope
Status: Complete

Project: Selinsgrove Center
Date: 2019 / 2020
Owner: PA Department of Human Services



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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

ESCO: McClure Company
Contact: Chris Stultz
Lighting Amount: \$444,722
Description: Interior and Exterior LED Lighting, Controls, Project Managed Union Labor

Current Project Pending Contract

Project: PA Central Parks
ESCO: McClure Company

Project: DGS Harrisburg Capital Complex
ESCO: McClure Company

2. *Superintendent Qualifications*

Qualifications of your field supervisors

Name: Roy Marshall

Project Responsibilities: Material Procurement & Logistics / Installation Scheduling / Supervision of Quality Control / Supervises All Aspects of GES Operations / Supervises Water Audit, Design & Engineering / Supervision of Labor Installation / Project Logistics / Project Coordination with Operations Manager

Time with Firm: 8 years

Experienced with GESA projects: SCI Dallas, PA State Parks, Selinsgrove Center, PA State Police

Other EPC -Correctional Institutions Projects: North Branch Correctional Institute, Cumberland Maryland
Western Correctional Institute, Cumberland, Maryland

Education or Training: OSHA 30, OSHA 10, CPR, Confined Spaces,

Relevant Information: 30 years Construction Management / Master Plumber/Industrial Mechanical / Med Gas / Pipe Fitter / Refrigeration

Name: John Ey

Project Responsibilities: Operation Manager / Master Electrician / Daily Site report / Daily Supervision of Installation Team / Daily Material Logistics / Daily Scheduling / Site Coordination / Manages Daily Scope of Work / Attend Construction Meeting with Customer / Responsible for Providing AIA's, Close-out Documents, Warranty Certifications.

Time with Firm: 12 years

Experienced with GESA projects: PA State Parks, Selinsgrove Center

Other EPC -Correctional Institutions Projects: North Branch Correctional Institute, Cumberland Maryland
Western Correctional Institute, Cumberland, Maryland

Education or Training: OSHA 30, 4-year Electrical Apprentice Program,

Relevant Information: 37 years of Electrical Experience

3. *Statement of Readiness and Commitment of Resources*

Global Energy Services has over 50 field staff members (which includes Field Installers, Project managers Operation managers) ready to be assigned if need to SCI Fayette are available and will be committed to the Project for the duration as describe in the project schedule.



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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

4. *Workman's Compensation Experience Modification Rating*

2016	.73
2017	.67
2018	.64
2019	.76

5. *Entity's Notification of Default or Debarment*

Global Energy Services has not defaulted on any of its contracts and has never been debarred.

6. *Pennsylvania Certifications*

Global Energy Services

Small business Self-Certification & Small Diverse Business Verification

Certification Number: 348437-2013-01-SB-W

Certification Type: Woman Business Enterprise

Issued Date: 1/14/2013

Expiration Date: 10/31/2020

Recertification: Currently In-Process

(Attached is a PDF of our Current Certification)



20 WEST AYLESBURY ROAD, TIMONIUM, MD 21093, 1 (888) 909-1660 Fax: 410-847-9867





Construction Key Subcontractor Qualification Form

H2O Applied Technologies LLC (PA-SDB)

GESA Project Experience

Subcontractor's Experience on GESA Projects greater than \$5 million; Include date(s), location, owner, owner contact, project amount, and description. completed as originally scheduled.

1. SCI Muncy Water Conservation and Steam System Upgrades

Date: 2020
Owner: Commonwealth of PA Dept. of Corrections
Contact:
Amount: \$1.1 million
Description: Low flow plumbing fixtures, penal fixture controls, steam traps, cooling
Status: In Progress

2. Philadelphia Housing Authority Water Conservation

Date: 2018-19
Owner: Philadelphia Housing Authority
Contact:
Amount: \$2.2 million
Description: Low flow plumbing fixtures
Status: Completed

3. Philadelphia Museum of Art Water Conservation and Steam System Upgrades

Date: 2018-19
Owner: Philadelphia Museum of Art
Contact:
Amount: \$1.3 million
Description: Low flow plumbing fixtures, steam traps, thermostatic radiator valves, mechanical insulation
Status: Completed

4. Luzerne County Water Conservation and Steam System Upgrades

Date: 2018
Owner: Luzerne County
Contact:
Amount: \$508K
Description: Low flow plumbing fixtures, penal fixture controls, laundry ozone system, steam traps, cooling tower submeters
Status: Completed

121 High Street, 3rd Floor • Boston, Massachusetts 02110 T: 617.428.8600 F: 617.249.0707



5. Scranton School District Water Conservation and Steam System Upgrades

Date: 2017-18
Owner: Scranton School District
Contact:
Amount: \$1.2 million
Description: Low flow plumbing fixtures, steam traps, thermostatic radiator valves, mechanical insulation
Status: Completed

Superintendent Qualifications

Subcontractor's Superintendent's Qualifications (4-person limit); Describe project responsibilities, time with firm, and experience with GESA projects, educational or technical training, and any other information relevant to the evaluation of the individual.

Justin Clark, CEM

Project Responsibilities: Senior Project Engineer
Time with Firm: 12 years
GESAs Project Experience: Yes
Education or Training: Bachelor of Science Mechanical Engineering Worcester Polytechnic Institute
Relevant information: Mr. Clark has developed over 75 projects (\$38 Million) comprising various water and energy conservation measures.

James Allen Hurley

Project Responsibilities: Senior Project Manager
Time with Firm: 6 years
GESAs Project Experience: Yes
Education or Training: Licensed Electrician, North Carolina; I-CON Systems Certified Installer
Relevant Information: Mr. Hurley has performed work in over 50 correctional facilities throughout the US in various roles including auditor, project developer, installer, and project manager.

Statement of Readiness and Commitment of Resources

Subcontractor's Statement of Readiness and Commitment of Resources per the Project Master Schedule; Provide a written statement confirming the person(s) identified in this RFQ are available and will be committed to the Project for the time period(s) referenced in the attached RFQ Project Schedule.

H2O Applied Technologies LLC (H2O) team members identified are available and will be committed to the project for the time period referenced in the RFQ Project Schedule

Workman's Compensation Rating

Subcontractor's Workman's Compensation Experience Modification Rating for the calendar years 2016-2020.

Effective 6/1/2016: 1.00
Effective 6/1/2017: .92
Effective 6/1/2018: .92

121 High Street, 3rd Floor • Boston, Massachusetts 02110 T: 617.428.8600 F: 617.249.0707

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project



Effective 6/1/2019: .92
Effective 6/1/2020: .89

Notification of Default and Debarment

Subcontractor's Notification of Default or Debarment; Provide a listing including owner, project, date, and explanation of any contract default or debarment within the last 5 years.

H2O has not defaulted on any of its contracts and has never been debarred.

State of Pennsylvania Certifications

Small Diverse Business

121 High Street, 3rd Floor • Boston, Massachusetts 02110 T: 617.428.8600 F: 617.249.0707

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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



3110 Camp Road
Oviedo, FL 32765
1.866.963.3530
www.ics.green

Subcontractor's Name:

Intelligent Conservation Systems, Inc.

Subcontractor's Logo:



Subcontractor's Experience:

Intelligent Conservation Systems, Inc. (ICS) has completed the successful water conservation scope at SCI Dallas and is currently preparing for construction at SCI Houtzdale. ICS has additionally completed well over one hundred correctional institution projects around the US and Canada, including at least five within the state of Pennsylvania. These projects have resulted in ICS becoming the most experienced water controls contractor in the entire US.

SCI Dallas

Date: 2015
Owner: Pennsylvania Department of Corrections
Contact: Scott Gracely - ESG
Amount: \$3,272,157
Description: The scope of work for SCI Dallas was the retrofit of more than 1,100 inmate toilet and lavatory valves and over 290 inmate shower valves with I-CON electronic plumbing controls and touchscreen officer control with an I-CON computer system. Also included in the scope is the replacement of all the existing staff fixtures. Currently saving \$1,000,000 in water, sewer, and gas costs annually.
Status: Completed

Dallas County Jail, Dallas Texas

Date: 2015
Owner: Dallas County Texas
Contact: Shane White – Schneider Electric
Amount: \$3,700,000
Description: The scope of work for Dallas County Jail was retrofitting of all existing mechanical flush valves, lavatory manifolds and shower controls, with new electronic water saving controls in all inmate areas of the facility. We also installed the ICON Envisage computer system to control and monitor inmate fixture usage. Approximately 3,000 inmate toilets, 3,000 lavatories and 800 showers were retrofitted with ICON electronic water saving controls.
Status: Completed

Warren and Lebanon Correctional Institution

Date: 2016
Owner: Ohio Department of Corrections and Rehabilitation
Contact: Dave Radanof - ESG
Amount: \$3,411,080

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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project



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1.866.963.3530
www.ics.green

Description: The scope of work for this project included work in two different correctional institutes in the State of Ohio. Between the two facilities the scope involved retrofitting existing mechanical flush valves, lavatory manifolds and shower controls, with new electronic water saving controls in all inmate areas of the facility. Over 2,202 inmate toilet valves were retrofitted with ICON electronic water saving controls. Additionally, over 1468 lavatory valves were retrofitted with electronic manifold valves, 106 inmate showers were retrofitted to electronic shower valves. Also included in the project involved replacing 220 staff fixtures were replaced with new high efficiency toilets.

Status: Completed

Allegheny County Jail, PA

Date: 2011

Owner: Allegheny County PA

Contact: Scott Emerton – Noresco

Amount: \$3,120,000

Description: The scope of work for Allegheny County Jail was retrofitting of all existing mechanical flush valves, lavatory manifolds and shower controls, with new electronic water saving controls in all inmate areas of the facility. 1,513 inmate toilets, 1,464 lavatories and 342 showers were retrofitted with ICON electronic water saving controls.

Status: Completed

Indiana State Prison

Date: 2014

Owner: Indiana Department of Corrections

Contact: Kevin Orme- Indiana DOC

Amount: \$3,100,000

Description: The scope of work for Indiana State Prison was retrofitting of all existing mechanical flush valves, lavatory manifolds and shower controls, with new electronic water saving controls in all inmate areas of the facility. 1,602 inmate toilets, 1572 lavatories and 193 showers were retrofitted with ICON electronic water saving controls. 67 toilets, 50 urinals, 77 faucets and 26 showers were retrofitted with low consumption units.

Status: Completed

Subcontractor's Superintendent's Qualifications:

Chris Peterson

Project Responsibilities: Vice President of Construction

Time with Firm: 8 years

Experienced with GESA projects: Yes

Education or Training: Bachelor of Science in Building Science, 35 Years Plumbing/Construction Experience; is a Licensed Class A General Contractor; is a Licensed Plumbing Contractor; and maintains various specialty licenses.

Relevant information: Responsible for total job operations, supervise all in field Project Managers. Has managed multiple correctional projects for all types of government and security levels.

Rich Stern

Project Responsibilities: Project Manager

Time with Firm: 3 years

Experienced with GESA projects: No

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Oviedo, FL 32765
1.866.963.3530
www.ics.green

Education or Training: OSHA 30 Certified. 20 Years in Construction Industry, 3 years in water conservation installations on correctional projects.

Relevant information: Supervise field personnel, handle material and equipment logistics, conduct subcontractor and safety meetings, perform M&V, conduct training with facility staff and complete O&M Documentation.

Argerous Filsofos

Project Responsibilities: Project Manager

Time with Firm: 5 years

Experienced with GESA projects: No

Education or Training: Certified & licensed General Contractor 40+ years in 8 states. Certified Facility Manager, (20+ yrs., AIPE, BOMA, others); Certified Asbestos Contractor, Certified FEMA inspector; 5 Years in water conservation installation for correctional projects.

Relevant information: Supervise field personnel, handle material and equipment logistics, conduct subcontractor and safety meetings, perform M&V, conduct training with facility staff and complete O&M Documentation.

Subcontractor's Statement of Readiness and Commitment of Resources:

Intelligent Conservation Systems, Inc. personnel identified are available and will be committed to the project for the time-period referenced in the RFP Project Schedule.

Subcontractor's Workman's Compensation Experience Modification Rating:

McGriff Insurance Services, Inc.

Policy Numbers:

6080421905, BUA6080421886, CUE6080421936, 6080672553

These policies are for Commercial, Automotive, Umbrella, Worker's Compensation, respectively

Over the last five annual policy cycles, ICS's EMR Rating has been:

1.61 04/19/2016-04/19/2017

1.58 04/19/2017-04/19/2018

1.54 04/19/2018-04/19/2019

.83 04/19/2019-04/19/2020

.86 04/19/2020-04/19/2021

Subcontractor's Notification of Default or Debarment:

Intelligent Conservation Systems, Inc. has not been debarred and is not in default of any contract.

Subcontractor's Pennsylvania Certifications:

Certified Small Business – SAP #536532

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Subcontractor Qualifications

1. Experience on GESA projects over \$5M

Although Lighting Services, Inc. does not have any recent GESA projects, we have a great deal of experience with State projects and projects in Pennsylvania.

Bethel Park School District

Date: 2015
Owner: Bethel Park School District
ESCO: Trane
Contract Amount: \$781,503
Description: More than 6,100 interior and exterior fixtures were retrofitted or replaced with LED technology
Status: Completed

Collin County Community College

Date: 2020
Owner: Collin County Community College District
ESCO: Trane US, Inc.
Contract Amount: \$2,080,000
Description: More than 1,980 interior and exterior fixtures were retrofitted or replaced with LED technology
Status: Completed

Georgia World Congress Center

Date: 2017
Owner: Georgia World Congress Center
ESCO: Trane
Contract Amount: \$3,399,000
Description: More than 5,000 exterior fixtures were retrofitted or replaced with LED technology
Status: Completed

United States Coast Guard Academy

Date: 2019
Owner: United States Coast Guard
ESCO: Ameresco, Inc.
Contract Amount: \$2,141,347

Lighting Services, Inc.
9001 Dutton Drive | Twinsburg, Ohio 44087
800.897.0050 | www.lighting-servicesinc.com



Description: More than 18,000 interior and exterior fixtures were retrofitted or replaced with LED technology
Status: Completed

2. Superintendent Qualifications

Mike Rohm

Project Responsibilities: Supervisor
Time with Firm: 20 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: 5 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: 11 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: 12 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.

Lighting Services, Inc.
9001 Dutton Drive | Twinsburg, Ohio 44087
800.897.0050 | www.lighting-servicesinc.com

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



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.

4. Worker's Compensation - EMR

The state of Ohio is monopolistic in regards to Worker's Compensation. As a result, we are issued an EMR directly from the State of Ohio Bureau of Worker's Compensation and from our insurance carrier for all other states. Information on our Worker's compensation for all states (other than Ohio) is:

Carrier: The Hartford Insurance Group
Policy Number: 45WBCBR3316

- This policy is for work performed outside of the State of Ohio.
- Prior to 2020, LSI was not eligible for an EMR rating from the Hartford.
- We were eligible for a unity modification rating which was 1.00
- The Hartford shows that our policy has been in effect since 5/2/2013 and there have been no claims.

EMR ratings for both sources are shown in the table below:

Year	State of OH - BWC	All Other States
2017	1.69	Not Eligible for EMR. Unity Modification 1.00
2018	.99	Not Eligible for EMR. Unity Modification 1.00
2019	.47	Not Eligible for EMR. Unity Modification 1.00
2020	.47	.93

5. Entity's Notification of Default or Debarment

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

6. Pennsylvania Certifications

Lighting Services, Inc. has the following certifications with the State of Pennsylvania Department of General Services:

- Small Diverse Business
- Small Business

Copies of the above referenced certifications are attached.

Lighting Services, Inc.
9001 Dutton Drive | Twinsburg, Ohio 44087
800.897.0050 | www.lighting-servicesinc.com



Sub-Contractor: Melink Corporation-Intelli-Hood Kitchen Hood Controllers

ESG has partnered with Melink on many of our past projects and they do an excellent job of reducing unnecessary energy consumption in applications where kitchen hoods are used on a daily basis.

1. Experience on GESA Projects over \$5M

Note: As a Subcontractor, we do not always know the total value of the project; therefore, amounts shown may only reflect our portion of the overall GESA project

County of Riverside Prison (California)

Date: 2018
Contact: Climatec
Amount: \$74,226
Description: Total HP = 23.5 HP & (5) Fans
Status: Completed

FCI Seagoville (2 Locations)

Date: 2019
Contact: Ameresco
Amount: \$129,943
Description: Total HP = 38 HP & (14) Fans
Status: In Progress

Maryland Juvenile Corrections Centers (4 locations)

Date: 2016
Owner: Maryland Corrections
Contact: Johnson Controls
Amount: \$115,864
Description: Controls in the following locations: Victor Cullen Correctional; Baltimore Juvenile, Lower Eastern State Correctional, Charles Hickey Correctional
Status: Completed

2. Key Personnel and Superintendent Qualifications

Joshua Gerlock

Project Responsibilities: Business Development Manager
Time with Firm: 3 years
Experienced with GESA projects: Yes
Education or Training: Ohio University
Relevant information: Sales lead focused on a review of calculated Energy Savings, Cost Estimation, and Closeout

513.965.7300

5140 River Valley Road

Cincinnati, OH 45150

melinkcorp.com



Greg Reynolds

Project Responsibilities: Project Manager
Time with Firm: 4.5 years
Experienced with GESA projects: Yes
Education or Training: Ohio University
Relevant information: Resource and logistic coordination

Jeremy Holcomb

Project Responsibilities: Applications Engineering Supervisor
Time with Firm: 12 years
Experienced with GESA projects: Yes
Education or Training: Applications Engineer
Relevant Information: System design and technical support

Todd Dostal

Project Responsibilities: Field Supervisor
Time with Firm: 13 years
Experienced with GESA projects: Yes
Education or Training: AEE Certification, CLEP, OSHA 30-hour
Relevant information: Supervise field personnel, handle material and equipment logistics, oversee project installation, project reporting and project closeout.

3. Statement of Readiness and Commitment of Resources

Melink Corporation personnel identified are available and will be committed to the project for the time period referenced in the RFP Project Schedule.

4. Workman's Compensation Experience Modification Rating

2016 - 0.82
2017 - 0.98
2018 - N/A - See attached letter
2019 - 1.00
2020 - 0.78

5. Entity's Notification of Default or Debarment

Melink Corporation has not been debarred and is not in default of any contract.

513.965.7300

5140 River Valley Road

Cincinnati, OH 45150

melinkcorp.com

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project

Sub-Contractor: Powersmiths International Corporation



1. Experience on GESA Projects over \$5M

Note: As a Subcontractor we do not always know the total value of the project, therefore amounts shown reflect our portion of the overall GESA project

Project: Please see the attached project list. The dollar amounts shown on the list are for the transformer measure only.

Opportunity Name	Amount	Close Date	Stage	Account Name
ACOE Pittsburgh Locks and Dams	\$188,490.00	3/24/2016	ESCO - Installation Phase	Honeywell International
	\$188,490.00			
1				
Thermo Fisher C/O	\$11,404.00	11/18/2013	ESCO - Project Complete	Complete Energy Solutions CES
	\$11,404.00			
1				
Philadelphia Art Museum	\$24,737.00	11/1/2018	ESCO - Initial PO Received	Johnson Controls JCI - Mid Atlantic
Upper Adams School District	\$107,904.00	3/29/19	ESCO - Initial PO Received	
	\$24,737.00			
1		10/30/2017	ESCO - Project Complete	Ameresco, Inc.
Luzerne County Community College	\$104,507.00			
	\$104,507.00			
1		3/27/2014	ESCO - Project Complete	SRC Solutions
Beaver Area Schools-retrofit	\$83,880.00	12/5/2011	ESCO - Project Complete	Red Lion Area School Dist
Red Lion Area School Dist - JCI	\$73,663.29			
	\$157,543.29			
2		4/18/2014	ESCO - Project Complete	McClure Company
York County, PA Government	\$271,169.00	8/28/2014	ESCO - Project Complete	CM3 Building Solutions, Inc.
Milton, PA SD	\$138,226.00	5/20/2015	ESCO - Initial PO Received	McClure Company
Northwestern Lehigh, PA SD	\$80,508.00	2/24/2014	ESCO - Project Complete	CM3 Building Solutions, Inc.
Southern Lehigh, PA SD	\$80,401.00	6/2/2014	ESCO - Project Complete	McClure Company
Williamsport, PA School District	\$58,231.00	5/20/2015	ESCO - Project Complete	McClure Company
Northern York County, PA SD	\$48,223.00	6/16/2015	ESCO - Project Complete	McClure Company
Williams Valley School District	\$42,455.00	7/3/2014	ESCO - Project Complete	McClure Company
Danville, PA SD	\$27,958.00			

2. Superintendent Qualifications

Qualifications of your field supervisors

We do not have a superintendent on our projects because we perform audit and measurement & verification services with our Project Developers during the PA and IGA phases of each project. Installation of our transformers is carried out by electrical subcontractors under contract to the ESCO.

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

3. **Statement of Readiness and Commitment of Resources**

Team members assigned to SCI Fayette are available and will be committed to the Project for the duration as describe in the project schedule.

As stated in number 2 above, our team performs audit and M&V during the PA and IGA phase. We do not have a role on site during the construction phase.

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

2016	1.00
2017	1.00
2018	1.00
2019	1.00

5. **Entity's Notification of Default or Debarment**

Powersmiths has not defaulted on any of its contracts and has never been debarred.

6. **Pennsylvania Certifications**

Please list any Small Business, Small Diverse Business, or Veteran Business Enterprise certifications that your company currently holds and that are up to date and valid.

None apply



Burke & Company, LLC dba S.P. McCarl & Company

GESA Project Experience

S.C.I. Smithfield Boiler Plant Upgrades	
Date: 2011 Owner: Department of General Services	Esco Contractor: Noresco Mechanical Contract Amount: \$8.1 Million
<p>Description: Installation of a new boiler house, bag house and ash handling system. The steam from the new boiler plant serves both S.C.I. Huntingdon and S.C.I. Smithfield. The project included: demolition of existing mechanical systems, replacement of rooftop units, condensate return units and piping replacements, hot water exchanger installations, steam traps and VAV dampers. The existing boiler system remained operational throughout construction. This project utilized ECMs to achieve energy savings for both prison campuses.</p>	
S.C.I. Laurel Highlands New Building Construction	
Date: 2011 Owner: S.C.I. Laurel Highlands	Esco Contractor: Johnson Controls, Inc Mechanical Contract Amount: \$4 Million
<p>Description: Construction of a new cogeneration facility to utilize landfill gas as a fuel source. This renewable energy project involved state of the art technology, using landfill gas in an environmentally friendly and energy efficient manner. In addition to the complex mechanical equipment, there was an extensive amount of process piping including fuse welded piping for the natural gas and methane gas systems.</p>	
S.C.I. Cresson New Biomass Cogeneration Plant	
Date: 2012 Owner: S.C.I. Cresson	Esco Contractor: Johnson Controls, Inc Mechanical Contract Amount: \$1.5 Million
<p>Description: Construction of a new cogeneration facility to utilize softwood chips as a renewable energy fuel source which was used to generate electricity and steam for the facility. The cogeneration facility replaced three existing gas-fired boilers and became the primary steam source.</p>	



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Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1 Response to Request for Quotes for a Guaranteed Energy Savings Project



Burke & Company, LLC dba S.P. McCarl & Company

Ebensburg Center Boiler Decentralization	
Date: 2010	Esco Contractor: Noresco
Owner: Ebensburg Center	Mechanical Contract Amount: \$2.8 Million
<p>Description: Decentralization from off-campus steam supplier's facilities to utilize natural gas boilers at each facility on campus. A total of fifteen buildings were affected by the decentralization. The hot water boilers provided significant savings in lieu of steam boilers. The project included extensive excavation for fused plastic underground piping. Thousands of feet of fused plastic piping were installed.</p>	
Williamsburg School District HVAC Renovations	
Date: 2018	Esco Contractor: Schneider Electric
Owner: Williamsburg School District	Mechanical Contract Amount: \$1.6 Million
<p>Description: Renovation of all HVAC systems to provide an energy savings for the school district. Demolished unit ventilators, fan coil units, baseboard heaters, rooftop units. Installed new VRV system including condensers, unit ventilators, fan coils, ceiling cassettes and rooftop units. This was a fast-paced project that needed completed in time for students to return for the Fall semester.</p>	

Statement of readiness and commitment of resources

In accordance with the upcoming S.C.I. Fayette project, Burke & Company, LLC dba S.P. McCarl & Company is prepared and ready for the mechanical scope of work. We have trusted, qualified local 354 pipefitters that will provide quality work, as well as an established foreperson. We also have sufficient project management and staff personnel to ensure this project will go smoothly. Our years of experience working on large, complex GESA projects for State Correctional Institutes will be crucial for a successful project.

No notifications of default or debarment

Safety Statistics:	
2019 EMR	0.733
2018 EMR (predecessor company)	0.733
2017 EMR (predecessor company)	0.721
2016 EMR (predecessor company)	0.715
Recent Awards: (predecessor company)	
2018 SMACNA Zero Injury Award	
2018: 1 st place in the 50,001 – 100,000 man-hour category	



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energysystemsgroup.com





hereby grants

National Women's Business Enterprise Certification

to

Burke & Company, LLC DBA S.P. McCarl & Company

who has successfully met WBENC's standards as a Women's Business Enterprise (WBE).
 This certification affirms the business is woman-owned, operated and controlled and is valid through the date herein.

WBENC National WBE Certification was processed and validated by Women's Business Enterprise Center - East, a WBENC Regional Partner Organization.

Elizabeth M Walsh

Authorized by Elizabeth M. Walsh, President
 Women's Business Enterprise Center - East



Certification Granted: January 24, 2020
 Expiration Date: January 24, 2021
 WBENC National Certification Number: WBE2000124

NAICS: 238220, 236220
 UNSPSC: 72131600



Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1
Response to Request for Quotes for a Guaranteed Energy Savings Project

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



The Department is pleased to announce that
Burke & Company, 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

CERTIFICATION NUMBER: **537867-2020-01-SB-W**
CERTIFICATION TYPE: **SMALL DIVERSE BUSINESS**

ISSUE DATE: **01/28/2020** EXPIRATION DATE: **01/28/2022**

RECERTIFIED DATE:

A handwritten signature in black ink that reads "Kerry L. Kirkland". The signature is written in a cursive style.

Kerry L. Kirkland, Deputy Secretary
Bureau of Diversity, Inclusion & Small Business Opportunities

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

BRAD KESSLER



546 54TH STREET
ALTOONA, PA 16602 814-329-1004
bkessler@spmccarl.com

WORK EXPERIENCE

SP McCarl & Co.

Project Coordinator/Superintendent/ 2010-Present
Foreman

RJ Meyer's Roofing

Superintendent/Foreman 2006-2007

SMWIA LU# 19

Journeyman 2007-present

Blair Sign Company

Shift Supervisor 1996-2004

EDUCATION AND TECHNICAL TRAINING

SMWIA LU #19 Apprenticeship
Certificate

2004-2007

Altoona Area High School
Degree

1992-1996

Recent Major Projects

PSU Visual Arts Mechanical Upgrade Site Superintendent/Project Coordinator

- \$6,000,000+
- Assisted with the design of the mechanical and architectural systems
- Replace HVAC system
- Upgrade/integrate electrical service entrance to 3 buildings
- Replace interior 3 story shaft wall system
- Install new steel dunnage on the roof
- Worked off hours for 2 months during spring semester on select areas, while maintaining all systems online during the day and worked 3 months during the summer, to have everything done for fall semester.
- Scheduled and coordinated all subcontractors

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

BRAD KESSLER



546 54TH STREET
ALTOONA, PA 16602 814-329-1004
bkessler@spmccarl.com

PSU Theatre Pipe Replacement/Energy Retrofit and Replacement Site Superintendent/Sheetmetal Foreman

- \$3,000,000+
- Replace mechanical piping systems
- Replaced 7 air handling units
- Installed 45 exposed fan coil units, with exposed ductwork and diffusers
- Worked off hours for 6 months, to replace the piping systems and install the FCU's, while maintaining systems on during the day. Followed by 3 months, to replace all of the air handlers and associated duct and piping.
- Scheduled and coordinated all subcontractors

AASD Natatorium HVAC Upgrades Site Superintendent/Sheetmetal Foreman

- \$500,000
- Replaced the existing indoor air handling units with outdoor pool dehumidification units
- Installed new duct and piping systems over the pool, while maintaining the pool full of water
- Scheduled and coordinated all subcontractors

ALL PROJECT EXPERIENCE

Project Name	Year	Approx. Contract Amt.	Location
PSU JOC Projects (superintendent/project coordinator)	2016, 2015, 2014, 2013		PSU Main Campus
AASD Natatorium HVAC Replacement (superintendent)	2013	\$500,000	Altoona Area High School
Geisinger Gray's Woods Clinic Phase II (sub-foreman)	2012	\$5,100,000	Geisingers Gray's Woods
Altoona Hospital F-5 pediatrics/F-6 Renovations (foreman)	2011	\$1,400,000	Altoona Hospital

Pennsylvania Department of Corrections / SCI Fayette / GESA 2020-1

Response to Request for Quotes for a Guaranteed Energy Savings Project

BRAD KESSLER



546 54TH STREET
ALTOONA, PA 16602 814-329-1004
bkessler@spmccarl.com

Altoona Hospital T-1 ED Alterations and Expansion (foreman/journeyman)	2010	\$2,700,000	Altoona Hospital
US Court of Appeals Renovations (Roofing foreman)	2007	\$2,500,000	Washington DC
PSU Beaver Stadium Roof Replacement (superintendent)	2007		PSU Main Campus

ADDITIONAL TRAINING & CERTIFICATIONS

OSHA 30	2017
AWS D9.1 Welding Certification	2006
Fred Pryor Supervision Training	2003

**Energy Systems Group
Financial Statements
with
Banking and Trade References**

***ENERGY SYSTEMS GROUP, LLC
AND SUBSIDIARIES***

Consolidated Financial Report

December 31, 2019, 2018, and 2017

PROPRIETARY
&
CONFIDENTIAL

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PROPRIETARY
&
CONFIDENTIAL

INDEPENDENT AUDITOR'S REPORT



**HARDING, SHYMANSKI
& COMPANY, P.S.C.**

Certified Public Accountants
and Consultants

21 S.E. Third Street, Suite 500
P.O. Box 3677
Evansville, IN 47735-3677

(812) 464-9161
Fax (812) 465-7811

545 S. Third Street, Suite 102
Louisville, KY 40202-1935

(502) 584-4142
Fax (502) 581-1653

www.hsccpa.com

An Independently
Owned Member,
RSM US Alliance

Board of Directors
Energy Systems Group, LLC and Subsidiaries

Report on the Financial Statements

We have audited the accompanying consolidated financial statements of Energy Systems Group, LLC and Subsidiaries, which comprise the consolidated balance sheets as of December 31, 2019, 2018, and 2017, the related consolidated statements of operations and member's equity and cash flows for the years then ended, and the related notes to the consolidated financial statements (collectively, the financial statements).

Management's Responsibility for the Financial Statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with accounting principles generally accepted in the United States of America; this includes the design, implementation, and maintenance of internal control relevant to the preparation and fair presentation of financial statements that are free from material misstatement, whether due to fraud or error.

Auditor's Responsibility

Our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditor considers internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. Accordingly, we express no such opinion. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

INDEPENDENT AUDITOR'S REPORT (CONTINUED)



We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Opinion

In our opinion, the financial statements referred to on the previous page present fairly, in all material respects, the financial position of Energy Systems Group, LLC and Subsidiaries, as of December 31, 2019, 2018, and 2017, and the results of its operations and its cash flows for the years then ended in accordance with accounting principles generally accepted in the United States of America.

Harding, Altmanski & Company, P.S.C.

Evansville, Indiana
February 27, 2020

PROPRIETARY
&
CONFIDENTIAL

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS

December 31, 2019, 2018, and 2017

(In thousands)	2019	2018	2017
ASSETS			
Current Assets			
Cash and cash equivalents	\$ 44,191	\$ 42,227	\$ 49,356
Contracts and accounts receivable, less allowance for doubtful accounts \$166, \$58, \$0	30,775	28,042	19,392
Notes receivable	-	48	89
Due from affiliate	2,913	2,713	1,652
Revenues earned in excess of billings on uncompleted contracts	12,782	21,623	17,843
Contract cost assets	19,336	16,349	14,824
Assets held for sale	3,222	4,827	-
Other current assets	2,654	4,381	2,829
Total current assets	115,873	120,210	105,985
Other Assets			
Goodwill	29,740	29,740	29,740
Other intangible assets, net of accumulated amortization of \$4,080, \$3,371, and \$2,660	9,061	9,770	10,481
	38,801	39,510	40,221
Property and Equipment, Net	4,806	5,959	11,235
Operating Lease Right-of-Use Asset	6,598	-	-
	\$ 166,078	\$ 165,679	\$ 157,441

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS (CONTINUED)

December 31, 2019, 2018, and 2017

(In thousands)	2019	2018	2017
LIABILITIES AND MEMBER'S EQUITY			
Current Liabilities			
Accounts payable, including retainage of \$13,056, \$10,568, and \$10,675	\$ 32,818	\$ 28,699	\$ 38,140
Billings in excess of revenues earned on uncompleted contracts	35,471	45,570	36,195
Accrued expenses and taxes	16,657	16,751	14,545
Current operating lease liability	1,297	-	-
Total current liabilities	86,243	91,020	88,880
Long-Term Operating Lease Liability	5,301	-	-
Other Liabilities	1,460	3,748	2,627
Total liabilities	93,004	94,768	91,507
Member's Equity	73,074	70,911	65,934
	\$ 166,078	\$ 165,679	\$ 157,441

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS AND MEMBER'S EQUITY
December 31, 2019, 2018, and 2017

(In thousands)	2019	2018	2017
Revenues			
Construction revenues	\$ 265,801	\$ 260,801	\$ 254,685
Operations and maintenance and other revenues	<u>36,003</u>	<u>30,532</u>	<u>27,135</u>
Total revenues	301,804	291,333	281,820
Cost of Revenues	<u>224,787</u>	<u>218,155</u>	<u>214,385</u>
Gross profit	77,017	73,178	67,435
Operating Expenses	<u>61,188</u>	<u>58,192</u>	<u>52,445</u>
Operating income	15,829	14,986	14,990
Other Income (Expenses)			
Interest, net	1,345	1,339	256
Other, net	<u>(11)</u>	<u>(18)</u>	<u>35</u>
	<u>1,334</u>	<u>1,321</u>	<u>291</u>
Net income	17,163	16,307	15,281
Member's equity at beginning of year	70,911	65,934	60,653
Cumulative effect adjustment for adoption of ASU 2014-09 as of January 1, 2018	-	(1,330)	-
Member dividend	<u>(15,000)</u>	<u>(10,000)</u>	<u>(10,000)</u>
Member's equity at end of year	<u>\$ 73,074</u>	<u>\$ 70,911</u>	<u>\$ 65,934</u>

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS

December 31, 2019, 2018, and 2017

(In thousands)	2019	2018	2017
Cash Flows from Operating Activities			
Net income	\$ 17,163	\$ 16,307	\$ 15,281
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation	958	1,181	1,128
Amortization	709	711	709
(Gain) loss on disposal of property and equipment	615	18	(20)
Impairment loss	1,129	855	766
Changes in assets and liabilities:			
Decrease (increase)			
Contracts and accounts receivable	(2,733)	(8,650)	8,215
Revenues earned in excess of billings on uncompleted contracts	8,841	(3,780)	(9,117)
Contract cost assets	(2,987)	4,102	(3,399)
Other current assets	1,727	(1,552)	1,864
Increase (decrease)			
Accounts payable	4,119	(9,441)	13,823
Billings in excess of revenues earned on uncompleted contracts	(10,099)	2,418	(1,427)
Accrued expenses and taxes	(94)	2,206	1,384
Other liabilities	(2,288)	1,121	(230)
Net cash provided by operating activities	17,060	5,496	28,977

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)

Years Ended December 31, 2019, 2018, and 2017

(In thousands)	2019	2018	2017
Cash Flows from Investing Activities			
Proceeds from sales of property and equipment	\$ 500	\$ 1	\$ 37
Purchases of property and equipment	(444)	(1,606)	(3,248)
Payments on note receivable	48	41	17
Net advances to affiliate	(200)	(1,061)	(1,049)
Net cash used in investing activities	(96)	(2,625)	(4,243)
Cash Flows from Financing Activities			
Principal payments on affiliate long-term borrowings	-	-	(45,000)
Member dividend	(15,000)	(10,000)	(10,000)
Net cash used in financing activities	(15,000)	(10,000)	(55,000)
Net increase (decrease) in cash and cash equivalents	1,964	(7,129)	(30,266)
Cash and cash equivalents at beginning of year	42,227	49,356	79,622
Cash and cash equivalents at end of year	\$ 44,191	\$ 42,227	\$ 49,356
Supplemental Disclosure of Cash Flow Information			
Cash payments for:			
Interest	\$ -	\$ -	\$ 885
Supplemental Schedules of Noncash Investing Activities			
Property and equipment transferred to assets held for sale	\$ -	\$ 4,827	\$ -
Right-of-use assets obtained in exchange for operating lease liabilities	\$ 7,540	\$ -	\$ -

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies

Nature of Business

Energy Systems Group, LLC and Subsidiaries (collectively, Company), an Indiana limited liability corporation, is a comprehensive energy services and performance contracting company providing energy, facility, and financial solutions to commercial, industrial, governmental, and institutional customers. In addition, the Company builds, owns, and operates certain renewable energy producing assets. The Company's operations are based throughout the contiguous United States, primarily in the Midwest, Mid-Atlantic, Northeast, and Southern regions, as well as California.

Principles of Consolidation

The consolidated financial statements include the accounts of Energy Systems Group, LLC and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Limited Liability Company

Since the Company is a limited liability company, no member is liable for the debts, obligations, or liabilities of the Company, except as otherwise legally obligated. The term of the Company shall be perpetual unless and until it is dissolved pursuant to state law or as provided in the limited liability company agreement.

Concentration of Credit Risk

Financial instruments, which potentially subject the Company to concentrations of credit risk, consist principally of cash and cash equivalents, contracts, and accounts receivable. At times, such cash and cash equivalents in banks may be in excess of the Federal Deposit Insurance Corporation insurance limit.

Cash and Cash Equivalents

For purposes of reporting the consolidated statements of cash flows, the Company considers all cash accounts, which are not subject to withdrawal restrictions or penalties, and all highly liquid debt instruments purchased with a maturity of three months or less to be cash equivalents. The amounts invested with the member's Parent classified as cash and cash equivalents at December 31, 2019, 2018, and 2017 were \$40,957, \$42,227, and \$49,357, respectively.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies (Continued)

Revenue Recognition

On January 1, 2018, the Company adopted ASU 2014-09, “*Revenue from Contracts with Customers*” (ASC 606). A majority of the Company’s revenues are from construction contracts and some customer contracts also include operation and maintenance (O&M) services. The consolidated statements of operations and member’s equity disaggregates revenues by two major types of performance obligations: construction revenues and operations and maintenance and other revenues. See Note 2 for required disclosures related to the impact of adopting ASC 606 and a summary of the Company’s updated policies related to revenue recognition disclosed below.

Construction revenues are measured based on the amount of consideration specified in a contract. The Company recognizes revenue from construction contracts over time as performance obligations are satisfied using the cost-based input method, which is based primarily on contract cost incurred to date compared to total estimated contract cost to satisfy the performance obligation. The cost-based input method is the most appropriate depiction of the Company’s performance because it directly measures the value of the services transferred to the customer. Contract costs include subcontract costs, all direct material and labor costs, and those indirect costs related to contract performance. Due to the nature of the work performed, the total estimated contract costs is subject to many variables and requires significant judgment. Therefore, it is reasonably possible that changes to total estimated contract costs may occur and those revisions and revenue estimates are recognized in the period in which the facts that require the revisions become known.

In the process of performing its construction contracts with its customers, the Company considers each contract to be one performance obligation, unless the circumstances dictate otherwise. Some of the Company’s contracts have multiple performance obligations, most commonly due to the contract covering more than one phase of a project (construction and O&M). For contracts with multiple performance obligations, the performance obligations are distinct as the customer can realize benefits from the construction services without the operation and maintenance services. The transaction prices of each performance obligation are specifically stated in the contract and have been developed independently. Contract modifications are routine in the performance of the Company’s contracts. Contracts are often modified to account for changes in the contract specifications or requirements. In most instances, contract modifications are for goods or services that are not distinct, and, therefore, are accounted for as part of the existing contract.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies (Continued)

Revenue Recognition (Continued)

If the Company's contracts give rise to variable consideration, the Company would recognize revenue for variable consideration when it is probable that a significant reversal in the amount of cumulative revenue recognized would not occur. Although billing methods can vary, most construction performance obligations require an initial deposit and are either billed monthly for progress completed or according to a contractual draw schedule. Payments are typically required within 30 days of billing. Retainage represents the amounts withheld from billings pursuant to provisions in the contracts and not paid until certain milestones are met or upon completion of the project. The Company's contract assets are presented as "revenues earned in excess of billings on uncompleted contracts" in the consolidated balance sheets and represents revenue recognized in excess of amounts billed. The Company's contract liabilities are presented as "billings in excess of revenue earned on uncompleted contracts" in the consolidated balance sheets and represents billings in excess of revenue recognized.

The Company also provides ongoing O&M services under multi-year contracts including operating, maintaining, and repairing facility energy systems. Because O&M services are typically a distinct series of promises, and those services have the same pattern of transfer to the customer, the Company records the revenue ratably over the life of the contract as the related services are performed.

The Company's construction and O&M contracts may be subject to performance guarantees and product warranties.

Leases

Effective January 1, 2019, upon adoption of ASU 2016-02, *Leases (Topic 842)*, all significant lease arrangements are recognized at lease commencement. Operating lease right-of-use (ROU) assets and lease liabilities are recognized at commencement. An ROU asset and corresponding lease liability are not recorded for leases with an initial term of 12 months or less (short-term leases) as the Company recognizes lease expense for these leases as incurred over the lease term.

ROU assets represent the Company's right to use an underlying asset during the reasonably certain lease term and lease liabilities represent the Company's obligation to make lease payments arising from the lease. The Company's leases may include options to extend or terminate the lease and when it is reasonably certain the Company will exercise one of those options, the lease term used to calculate the right to use asset and related lease liability is updated accordingly. The Company uses its incremental borrowing rate, which is updated annually or when a significant event occurs that would indicate a significant change in rates, based on the information available at commencement date, in determining the present value of lease payments. The operating lease ROU asset also includes any lease payments related to initial direct cost and prepayments at commencement, if any. Lease expense is recognized on a straight-line basis over the lease term. The Company has lease agreements with lease and non-lease components, which are generally accounted for as a single component. See Note 15 for additional discussion on the Company's leases.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies (Continued)

Leases (Continued)

For periods prior to January 1, 2019, leases are presented and disclosed in accordance with legacy lease guidance (ASC 840) in effect for those periods.

Contract Cost Assets

Pre-contract costs are costs incurred to fulfill a contract prior to contract award. The Company records these as contract cost assets when they are probable of recovery under a specific anticipated contract. The pre-contract costs asset is expensed as a job cost upon the award of the anticipated contract, at which time revenue is recognized under the cost based input method. Pre-contract costs assets are expensed as an operating expense when and if it is determined that realization of the related revenue is no longer probable. Pre-contract costs included in “contract cost assets” at December 31, 2019, 2018, and 2017 was \$10,892, \$6,650, and \$10,192, respectively.

Certain contract costs, such as subcontractor costs, incurred to fulfill a contract are capitalized as contract cost assets if the costs incurred do not yet contribute to progress in satisfying the performance obligation and are excluded from the cost input calculation for revenue recognition. The contract cost asset is expensed as a job cost once the subcontract costs incurred are proportionate to progress in satisfying the performance obligation. Contract costs excluded from revenue recognition and included in “contract costs assets” at December 31, 2019, 2018, and 2017 was \$8,445, \$9,699, and \$4,632 respectively.

Contracts and Accounts Receivable

Contracts and accounts receivable are customer obligations due under normal trade terms and represent an unconditional right to payment under terms of the contract. The Company attempts to minimize contracts receivable credit risk by reviewing customer credit history before extending credit and by monitoring customers' credit exposure on a continuing basis.

Retainages, which are included within contracts and accounts receivable, represent amounts due from customers, where payments are withheld contractually until certain construction milestones are met and are considered contract assets until billed and due. Amounts retained typically range from five percent to ten percent of the total invoice.

The Company establishes an allowance for possible losses on contracts and accounts receivable, when necessary, based upon factors surrounding the credit risk of specific customers, historical trends, and other information. Bad debt expense consists of accounts written-off or reserved, net of recoveries.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies (Continued)

Property, Equipment, and Depreciation

Property and equipment are stated at cost. Provisions for depreciation of property and equipment have been computed on the straight-line method over the estimated useful life.

Amortization of leasehold improvement assets is computed on the straight-line method over the shorter of the useful life of the asset or the life of the lease.

Long-Lived Assets and Assets Held for Sale

Long-lived assets are reviewed for impairment in accordance with guidance issued by the Financial Accounting Standards Board (FASB). The Company records impairment losses on long-lived assets used in operations when events and circumstances indicate that the assets might be impaired and the undiscounted cash flows estimated to be generated by those assets are less than the carrying amounts of those assets. Impairment losses are measured by comparing the estimated fair value of the assets to their carrying amount.

On November 28, 2018, the Company had signed a purchase agreement to sell its three digesters and expected to close in the first quarter of 2019. The stated purchase price included a down payment at closing and payments over a 60-month period beginning one year after closing. The present value of the expected consideration, less \$100 of selling expenses, totaled \$4,827, which resulted in an impairment loss of \$855 included in operating expenses for the year ended December 31, 2018. In accordance with ASC 360-10, the Company classified these assets as assets held for sale at December 31, 2018 in the consolidated balance sheet. The Company did not end up closing on this agreement during 2019.

On December 20, 2019, the Company sold one of the three digesters noted above to a third party at a purchase price of \$500 and recognized an impairment of \$74 prior to the sale. New purchase agreements were drafted as of January 6, 2020 to sell the other two digesters with an expected close date in the first quarter of 2020. The Company recognized additional impairment losses of \$1,055 for the remaining two digesters. In accordance with ASC 360-10, the Company classified these assets as assets held for sale at December 31, 2019 in the consolidated balance sheet.

During the year ended December 31, 2017, the Company determined that certain assets' carrying value exceeded their net realizable value and thus were written down to zero. Impairment losses for the year ended December 31, 2017 were \$766.

Goodwill and Other Intangible Assets

Goodwill and other intangible assets having an indefinite life are tested for impairment, at least annually, using a fair value based approach. Intangible assets with finite lives are being amortized on the straight-line method over their estimated useful life.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 1 – Nature of Business and Significant Accounting Policies (Continued)

Subsequent Events Evaluation

Since the Company is a subsidiary of a public entity, management has evaluated subsequent events through February 27, 2020, which represents the date the member's Parent's consolidated financial statements were issued.

Use of Estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America (U.S. GAAP) requires management to make estimates and assumptions that affect certain reported amounts and disclosures. Accordingly, actual results could differ from those estimates.

Recent Accounting Standards

Leases

In February 2016, FASB issued ASU 2016-02, *Leases (Topic 842)*. The guidance in this ASU supersedes the leasing guidance in *Topic 840, Leases*. Under the new guidance, the Company is electing to only recognize lease assets and lease liabilities on the balance sheet for all leases with terms longer than 12 months. Leases will be classified as either finance or operating, with classification affecting the pattern of expense recognition in the consolidated statements of income. ASU 2016-02 is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years. On January 1, 2019, the Company adopted ASU 2016-02 using the modified retrospective approach of applying the new standard to leases that existed at, or were entered into, after the adoption date. See Note 15 for the impact of the adoption and the new disclosures required by this standard.

Recent Accounting Pronouncements

Test for Goodwill Impairment

In January 2017, FASB issued ASU 2017-04, *Intangibles - Goodwill and Other (Topic 350): Simplifying the Test for Goodwill Impairment*. The ASU simplifies the measurement of goodwill impairment by eliminating the requirement that an entity compute the implied fair value of goodwill based on the fair values of its assets and liabilities to measure impairment. Instead, goodwill impairment will be measured as the difference between the fair value of the reporting unit and the carrying value of the reporting unit. The ASU also clarifies the treatment of the income tax effect of tax deductible goodwill when measuring goodwill impairment loss. The Company will be required to adopt ASU 2017-04 as of January 1, 2020. ASU 2017-04 must be applied prospectively with early adoption permitted. The Company is currently evaluating the impact of the adoption of this guidance on its consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
December 31, 2019, 2018, and 2017

(In thousands)

Note 2 – New Accounting Guidance Implementations

Revenue Recognition

In May 2014, FASB issued ASC 606 to clarify the principles for recognizing revenue and to develop a common revenue standard for U.S. GAAP. The amendments in this guidance state an entity should recognize revenue to depict the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. This new guidance requires enhanced disclosures to help users of financial statements better understand the nature, amount, timing, and uncertainty of revenue that is recognized.

On January 1, 2018, the Company adopted ASC 606 using the modified retrospective method and applied it to those contracts which were not completed as of January 1, 2018. Results for reporting periods beginning January 1, 2018 are presented under ASC 606, while prior period amounts are not adjusted and continue to be reported under the accounting standards in effect for the prior period. The Company recorded an adjustment to reduce member's equity of \$1,330 on January 1, 2018 due to the cumulative impact of adopting ASC 606. The cumulative effect recorded resulted from a change in the accounting for revenue associated with certain uninstalled specialized equipment invoiced to the Company by subcontractors on various projects, where under the new revenue standard, revenue recognition is proportionate to progress in satisfying the performance obligation. Prior to adoption of ASC 606, revenue was recognized when the subcontractor invoiced the procured specialized equipment to the Company. The Company expects ongoing application to be immaterial to the Company's financial condition and net income.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 2 – New Accounting Guidance Implementations (Continued)

Revenue Recognition (Continued)

The cumulative effect of initially applying ASC 606 as an adjustment to member's equity in the consolidated balance sheet as of January 1, 2018 is as follows:

	Balance at December 31, 2017	Adjustments due to adoption of ASC 606	Balance at January 1, 2018
ASSETS			
Contract cost asset	\$ 14,824	\$ 5,627	\$ 20,451
LIABILITIES			
Billings in excess of revenues earned on uncompleted contracts	36,195	6,957	43,152
MEMBER'S EQUITY			
Member's equity	65,934	(1,330)	64,604

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 2 – New Accounting Guidance Implementations (Continued)

Revenue Recognition (Continued)

The modified retrospective method of transition requires disclosure of the effect of applying the new guidance on each item included in the 2018 consolidated financial statements. Following are the line items from the consolidated balance sheet as of December 31, 2018, that were affected:

	<u>As Reported</u>	<u>Adjustments due to adoption of ASC 606</u>	<u>Balances Without Adoption of ASC 606</u>
ASSETS			
Revenues earned in excess of billings on uncompleted contracts	\$ 21,623	\$ 994	\$ 22,617
Contract cost assets	16,349	(856)	15,493
LIABILITIES			
Billings in excess of revenues earned on uncompleted contracts	45,570	(10)	45,560
MEMBER'S EQUITY			
Member's equity	70,911	148	71,059

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 2 – New Accounting Guidance Implementations (Continued)

Revenue Recognition (Continued)

The following are the line items from the consolidated statements of operations and member’s equity and consolidated statements of cash flows for the year ended December 31, 2018, that were affected, the amounts that would have been reported under the former guidance, the effects of applying the new guidance, and the amounts reported under the new guidance:

	As Reported	Adjustments due to adoption of ASC 606	Balances Without Adoption of ASC 606
Revenues	\$ 291,333	\$ (5,953)	\$ 285,380
Cost of Revenues	218,155	(4,771)	213,384
Net Income	16,307	(1,182)	15,125
Cash Flows from Operating Activities			
Net income	16,307	(1,182)	15,125
Revenues earned in excess of billings on uncompleted contracts	(3,780)	(994)	(4,774)
Contract cost assets	4,102	(4,771)	(669)
Billings in excess of revenues earned on uncompleted contracts	2,418	6,947	9,365

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 3 – Contracts and Accounts Receivable

Contracts and accounts receivable at December 31, 2019, 2018, and 2017 consisted of the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Contracts and accounts receivable			
Completed contracts	\$ 616	\$ 664	\$ 1,798
Contracts-in-process	19,713	19,098	11,600
Retainages	<u>10,612</u>	<u>8,338</u>	<u>5,994</u>
	30,941	28,100	19,392
Less allowance for doubtful accounts	<u>(166)</u>	<u>(58)</u>	<u>-</u>
	<u>\$ 30,775</u>	<u>\$ 28,042</u>	<u>\$ 19,392</u>

Contracts and accounts receivable are expected to be collected within one year from the consolidated balance sheet dates. The opening balance of contracts and accounts receivables for the year ended December 31, 2017 was \$27,607.

Note 4 – Contract Assets and Liabilities

Contract assets and liabilities at December 31, 2019, 2018, and 2017 consisted of the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Contract assets			
Revenues earned in excess of billings on uncompleted contracts	\$ 12,782	\$ 21,623	\$ 17,843
Retainage receivables	<u>10,612</u>	<u>8,338</u>	<u>5,994</u>
	<u>\$ 23,394</u>	<u>\$ 29,961</u>	<u>\$ 23,837</u>
Contract liabilities			
Billings in excess of revenues earned on uncompleted contracts	<u>\$ (35,471)</u>	<u>\$ (45,570)</u>	<u>\$ (36,195)</u>

The opening balances of revenues earned in excess of billings on uncompleted contracts (contract asset), retainage receivables (contract asset), and billings in excess of revenues earned on uncompleted contracts (contract liability) were \$8,726, \$4,651, and \$37,622, respectively, for the year ended December 31, 2017.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 5 – Contracts-in-Progress

Costs and estimated gross profit on uncompleted contracts at December 31, 2019, 2018, and 2017 consisted of the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Costs incurred on uncompleted contracts	\$ 298,374	\$ 204,099	\$ 291,519
Estimated gross profit	<u>74,286</u>	<u>60,552</u>	<u>68,235</u>
Contract revenue earned to date	372,660	264,651	359,754
Less billings to date	<u>(395,349)</u>	<u>(288,598)</u>	<u>(378,106)</u>
Excess of billings over revenue earned	<u>\$ (22,689)</u>	<u>\$ (23,947)</u>	<u>\$ (18,352)</u>

Included in the accompanying consolidated balance sheets under the following captions:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Costs and estimated earnings in excess of billings on uncompleted contracts	\$ 12,782	\$ 21,623	\$ 17,843
Billings in excess of costs and estimated earnings on uncompleted contracts	<u>(35,471)</u>	<u>(45,570)</u>	<u>(36,195)</u>
	<u>\$ (22,689)</u>	<u>\$ (23,947)</u>	<u>\$ (18,352)</u>

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 6 – Intangible Assets

Intangible assets at December 31, 2019, 2018, and 2017 consisted of the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Intangible assets, subject to amortization:			
Customer relationships	\$ 7,096	\$ 7,096	\$ 7,096
Intangible assets, not subject to amortization:			
ESPC licenses	6,045	6,045	6,045
Goodwill	<u>29,740</u>	<u>29,740</u>	<u>29,740</u>
	42,881	42,881	42,881
Accumulated amortization	<u>(4,080)</u>	<u>(3,371)</u>	<u>(2,660)</u>
	<u>\$ 38,801</u>	<u>\$ 39,510</u>	<u>\$ 40,221</u>

Amortization expense for the three years ended December 31, 2019, 2018, and 2017 was \$710, \$711, and \$709, respectively. The estimated amortization expense expected to be charged to income over each of the next four years is \$709 and \$180 for the fifth year.

Note 7 – Property and Equipment

Property and equipment at December 31, 2019, 2018, and 2017 consisted of the following:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Equipment	\$ 7,591	\$ 4,545	\$ 4,814
Leasehold improvements	1,179	3,404	12,284
Construction-in-progress	<u>104</u>	<u>2,886</u>	<u>2,499</u>
	8,874	10,835	19,597
Accumulated depreciation	<u>(4,068)</u>	<u>(4,876)</u>	<u>(8,362)</u>
	<u>\$ 4,806</u>	<u>\$ 5,959</u>	<u>\$ 11,235</u>

Depreciation expense for the three years ended December 31, 2019, 2018, and 2017 was \$958, \$1,181, and \$1,128, respectively.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 8 – Commitments and Contingencies

At December 31, 2019, 2018, and 2017, the Company had outstanding surety bonds of approximately \$697,000, \$793,000, and \$755,000, respectively, for its performance, payment, and energy savings guarantees. Upon final acceptance, payment and performance bonds are replaced with maintenance bonds at ten percent of the original face value and remain in effect during the one-year warranty period. Energy savings guarantee bonds are for various lengths and are reduced annually based upon the amount of guarantee met. In addition, the Company's member's Parent has outstanding performance guarantees for certain projects related to construction, energy services, and operations. If events arise that indicate required performance under the guarantees, the Company would record a liability.

Generally, guaranteed savings, whereby the Company guarantees that the customer will achieve certain levels of energy savings over a specified number of years and warranty agreements accompany the contracts. The Company has determined based on historical results that an energy guarantee reserve is unnecessary.

Note 9 – Litigation

The Company is involved in lawsuits, claims, investigations, and proceedings, which arise in the ordinary course of business. If management believes that a loss arising from these matters is probable and can be reasonably estimated, a loss is recorded. As additional information becomes available, these matters are assessed and the estimates are revised, if necessary. Based on currently available information, management believes that the ultimate outcome of these matters, individually and in the aggregate, will not have a material adverse effect on the Company's business, financial condition, or results of operation.

Note 10 – Fair Value of Financial Instruments

Certain assets and liabilities are recorded at fair value.

FASB ASC 820, *Fair Value Measurements and Disclosures*, provides the framework for measuring fair value. That framework provides a fair value hierarchy that prioritizes the inputs to valuation techniques used to measure fair value. The hierarchy gives the highest priority to unadjusted quoted prices in active markets for identical assets or liabilities (Level 1 measurements) and the lowest priority to unobservable inputs (Level 3 measurements).

The asset's or liability's fair value measurement level within the fair value hierarchy is based on the lowest level of any input that is significant to the fair value measurement. Valuation techniques used need to maximize the use of observable inputs and minimize the use of unobservable inputs.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 10 – Fair Value of Financial Instruments (Continued)

For the years ended December 31, 2019, 2018, and 2017, the application of valuation techniques applied to similar assets and liabilities has been consistent. The following is a description of the valuation methodology used for instruments measured at fair value:

Cash, cash equivalents, receivables, accounts payable, accrued expenses, and payables – Carrying amount approximates fair value because of the short maturity of those instruments.

Fair Value on a Nonrecurring Basis

Certain assets and liabilities are measured at fair value on a nonrecurring basis; that is, the instruments are not measured at fair value on an ongoing basis but are subject to fair value adjustments in certain circumstances (for example, when there is evidence of impairment).

During 2019, the same held-for-sale assets from 2018 that incurred impairment charges incurred additional impairment charges. The held-for-sale asset with a carrying amount of \$574 was impaired by \$74 and sold on December 20, 2019 at a transaction price of \$500. The other two held-for-sale assets were impaired by \$1,055 based on the final expected sales price being less than the carrying amount, which was included in operating expenses for the year ended December 31, 2019. The assets were included in assets held for sale at \$3,222 as of December 31, 2019.

During 2018, three long-lived assets with a carrying amount of \$5,682 were reclassified to assets held-for-sale and were partially impaired. The impairment was based on the final expected sales price being less than the carrying amount, resulting in an impairment charge of \$855, which was included in operating expenses for the year ended December 31, 2018. The assets were included in assets held-for-sale at \$4,827 as of December 31, 2018.

During 2017, a long-lived asset with a carrying amount of \$766 was fully impaired using Level 2 measurements, resulting in an impairment charge of \$766, which was included in operating expenses for the year ended December 31, 2017.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 11 – Parent Financial Services and Security Agreement

The Company and its member's Parent have entered into a financial services and security agreement whereby the Parent provides cash management services to the Company in the form of short and long-term loans and investment of excess cash balances.

The Company has a short-term borrowing credit facility with its member's Parent with a borrowing limit of \$35,000. Interest on short-term notes payable are based on the rate per annum equal to the lender's weighted average daily cost of funds, 1.98 percent at December 31, 2019. There were no outstanding borrowings at December 31, 2019, 2018, and 2017. The Company's advances to the member's Parent at December 31, 2019, 2018, and 2017 were \$40,957, \$42,227, and \$49,356, respectively, and meet the criteria for a cash equivalent and have been included as such in the consolidated balance sheets.

The Company also has a long-term borrowing credit facility with its member's Parent with a borrowing limit of \$45,000. Interest on long-term notes payable is based on the rate per annum equal to the lender's weighted average rate of its bonds. There were no outstanding long-term borrowings under this credit facility at December 31, 2019, 2018, and 2017.

Note 12 – Income Taxes

The limited liability companies (LLCs) are not tax-paying entities for income tax purposes. Income from the LLCs is taxed to its member (Vectren Corporation) on its corporate return; therefore, there is no tax provision provided on income for the LLCs.

Management evaluated the Company's uncertain tax positions and concluded that the Company had taken no uncertain tax positions that require adjustment to the consolidated financial statements.

Note 13 – Employee Incentive Plans

The Company has a defined contribution plan with a profit-sharing component for all employees. Discretionary profit-sharing contributions to the plan are made when certain conditions are met. Additionally, employees are auto enrolled in the defined contribution plan at five percent, unless they affirmatively elect not to participate, a portion of which is matched by the Company. The Company's contribution for the three years ended December 31, 2019, 2018, and 2017 was \$4,235, \$4,099, and \$3,684, respectively.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 14 – Related Party Transactions

At December 31, 2019, 2018, and 2017, the Company had a short-term net receivable due from its member's Parent of \$2,913, \$2,713, and \$1,652, respectively.

For the years ended December 31, 2019, 2018, and 2017, the Company had net related-party interest income of \$1,333, \$1,314, and \$225, respectively.

The member's Parent provides certain services for which the Company is not charged.

Note 15 – Leases

On January 1, 2019, the Company adopted ASU 2016-02, *Leases, (Topic 842)* and all related amendments using the modified retrospective transition method and elected not to recast comparative periods in the year of adoption as permitted by the standard. Under this transition method, an entity initially applies the new standard to all leases existing at the adoption date and recognizes a cumulative effect adjustment to the opening balance of member's equity, if any, at that date. As a result, leases for periods prior to adoption will be presented and disclosed in accordance with legacy lease guidance (ASC 840) in effect for those periods. The Company also elected the package of practical expedients permitted under the transition guidance within the new standard, which among other things, allowed it to carry forward the historical lease classification. The Company has also elected the practical expedient to not separate lease and non-lease components for certain classes of leases, such as office buildings.

As a result of the adoption of ASC 842, the Company recognized an increase in lease ROU assets of \$7,466, an increase to current portion of operating lease liabilities of \$942, and an increase to long-term portion of operating lease liabilities of \$6,524. There was no impact to member's equity or the consolidated statements of operations and member's equity related to the adoption of ASC 842.

The Company enters into various operating lease agreements containing equipment and office facility leases. The leases are long-term non-cancelable lease agreements, expiring at various dates through December 2027. The agreements generally provide for fixed minimum rental payments and the payment of utilities, real estate taxes, insurance, and repairs for the office facility leases. Lease expense is recognized on a straight-line basis over the lease term for operating leases.

The Company uses the incremental borrowing rate in determining the present value of the lease payments unless the implicit rate is readily determinable. The incremental borrowing rate is based on the information available at the lease commencement date. When a secured borrowing rate is not readily available, unsecured borrowing rates are adjusted for the effects of collateral to determine the incremental borrowing rate. The Company elected to apply the discount rate using the remaining lease term at the date of adoption.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 15 – Leases (Continued)

The components of lease cost included in operating expenses on the consolidated statements of operations and member's equity at December 31, 2019, 2018, and 2017 are as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Operating lease costs	\$ 1,931	\$ 1,911	\$ 1,679
Short-term lease cost	<u>113</u>	<u>99</u>	<u>46</u>
Total lease cost	<u>\$ 2,044</u>	<u>\$ 2,010</u>	<u>\$ 1,725</u>

The following table summarized the lease-related assets and liabilities recorded in the consolidated balance sheet at December 31, 2019:

Assets:		
Operating Lease Right-of-Use Asset		<u>\$ 6,598</u>
Total Leased Assets		<u>\$ 6,598</u>
Liabilities:		
Current operating lease liability		\$ 1,297
Long Term Operating Lease Liability		<u>5,301</u>
Total leased liabilities		<u>\$ 6,598</u>
Weighted-average remaining lease term (in years) - leases		6.3 years
Weighted-average discount rate - operating leases		3.6%

Cash paid for amounts included in the measurement of operating lease liabilities for the years ended December 31, 2019, 2018, and 2017 are as follows:

	<u>2019</u>	<u>2018</u>	<u>2017</u>
Included in operating cash flows	<u>\$ 1,931</u>	<u>\$ -</u>	<u>\$ -</u>

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

December 31, 2019, 2018, and 2017

(In thousands)

Note 15 – Leases (Continued)

As of December 31, 2019, the Company's estimated minimum future operating lease obligations are as follows:

<u>Years Ending December 31,</u>	
2020	\$ 1,608
2021	1,206
2022	1,089
2023	980
2024	792
Thereafter	<u>1,873</u>
Total minimum lease payments	7,548
Less: interest	<u>(950)</u>
Present value of operating lease liabilities	6,598
Less current portion	<u>(1,297)</u>
Long-term portion of operating lease obligations	<u>\$ 5,301</u>

Note 16 – Major Customers and Large Contracts and Accounts Receivable

Major customers and large contracts and accounts receivable are those greater than ten percent of the respective total.

During December 31, 2019, the Company had no major customers from which revenues comprised ten percent of the respective total. During the year ended December 31, 2018, the Company had one major customer from which revenues totaled \$39,171. During the year ended December 31, 2017, the Company had two major customers from which revenues totaled \$72,960.

At December 31, 2019, large contracts receivable balances from two customers totaled \$9,002. At December 31, 2018, large contracts receivable balances from one customer totaled \$3,378. At December 31, 2017, large contracts receivable balances from two customers totaled \$5,890.

Banking Reference:

Fifth/Third
PO Box 778
Evansville, IN 47705-0778

Contact: Jennifer Raibley
Phone: (812) 456-3812
General Acct: 101480880

Trade References:

Adena Utilities Engineering Inc.
3700 Park 42 Drive, Suite 155 B
Cincinnati, OH 45241
Phone: (513) 563-4911
Fax: (513) 563-5017

Eaton Corporation
1000 Cherrington Parkway
Moon Township, PA 15108
Phone: (412) 893-3300

Office Depot
PO Box 30292
Salt Lake City UT 84130-0292
Phone: (800) 729-7744
Fax: (801) 779-7425

Advanced Power Technologies, Inc.
433 North 36th Street
Lafayette, Indiana 47905
Phone: (765) 446-2343
Fax: (661) 825-8895

Harding Shymanski & Co., PC
PO Box 3677
Evansville, IN 47735-3677
Phone: (812) 464-9161

Solar Turbines Inc.
PO Box 85376
San Diego, CA 92186-5376
Phone: (630) 527-1700
Fax: (858) 694-6891

Columbia Pipe & Supply, Co.
23671 Network Place
Chicago, IL 60673-1236
Phone: (888) 361-4700
Fax: (773) 927-8415

Hitec Power Protection, Inc.
25707 Southwest Freeway
Rosenberg, TX 77471
Phone: (281) 239-0178

The Trane Company
Attn: Chris Dayton
3600 Pammel Creek Road
Lacrosse, WI 54601
Phone: (608) 787-4346
Fax: (608) 787-2409

Constellation New Energy Services
10 South Dearborn St., 51st Floor
Chicago, IL 60603
Phone: (877) 409-9836

Integrated Technologies 2216
Highland Springs Place
Louisville, KY 40245
Phone: (502) 253-2825
Fax: (502) 253-1087

Universal Supply Group, Inc.
275 Wagaraw Road
Hawthorne, NJ 07506
Phone: (973) 427-3320

Delta Connects, Inc.
12 Stults Road, Suite 135
Dayton, NJ 08810
Phone: (609) 860-6600

McMaster-Carr PO Box 7690
Chicago, IL 60680-7690
Phone: (630) 600-3600
Fax: (630) 834-9427

WW Grainger Inc.
Dept 272- Acct #39447653
Palatine IL 60038-0001
Phone: (847) 793-5200
Fax: (847) 647-2060

I certify all of the information provided herein to be true and accurate. I hereby authorize release of payment and credit history regarding Energy Systems Group, LLC.


Signature

Drew E. Bailey
Name

VP Finance & Acctg
Title