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 Mercer - Mercer, PA

Project No. GESA 2023-2
Contract No. DGS GESA 2023-2

Tony Prelec, Account Executive
724.996.7970

August 29, 2023

energy systems group

TABLE OF CONTENTS

VOLUME I: TECHNICAL SUBMITTAL

Electronic Copy (USB Flash Drive) Includes:
Full Copy of Technical Submission
ESG Audited Financial Reports

energy systems group

August 29, 2023

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 Mercer; Project Number GESA 2023-2; Contract Number DGS GESA 2023-2

Dear Ms. Tomlinson and 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 Mercer – Contract No. DGS GESA #2023-2.

Energy Systems Group, State of Pennsylvania Vendor Number is **383996**. 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 Mercer.

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

Tony Prelec, Senior Account Executive
tprelec@energysystemsgroup.com
Phone Number: 724.996.7970
Fax Number: 833-834-0324

The primary person authorized to bind the company; and, the primary person authorized to conduct contract negotiations:

Steven Craig, President or
scraig@energysystemsgroup.com
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,

Brian K. Gower
Vice President

Appendix A

Quote Signature Page

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:

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

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

Brian K Gower

Signature

Brian K. Gower

Print Name Legibly

Vice President

Title

Appendix B

Non-Collusion Affidavit

APPENDIX B

Non-Collusion Affidavit

INSTRUCTIONS FOR NONCOLLUSION AFFIDAVIT

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

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

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

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

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

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

NONCOLLUSION AFFIDAVIT

DGS Project Number: GESA 2023 - 2

State of INDIANA:

County of Warrick: s.s.

I state that I am the 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.

Brian K Gower
(Signature)

Brian K. Gower
(Signatory's Printed Name)

Vice President
(Signatory's Title)

SWORN TO AND SUBSCRIBED BEFORE ME THIS 24th DAY OF August, 2023.

Elizabeth Allan
Notary Signature

My Commission Expires June 14, 2030

NOTARY PUBLIC SEAL INDIANA

ELIZABETH ALLAN
Notary Public, State of Indiana
Vanderburgh County
Commission Number NP0741852
My Commission Expires
June 16, 2030

Appendix T

Worker Protection and Investment Certification Form

APPENDIX T

Worker Protection and Investment Certification Form

WORKER PROTECTION AND INVESTMENT CERTIFICATION FORM

A. Pursuant to Executive Order 2021-06, *Worker Protection and Investment* (October 21, 2021), the Commonwealth is responsible for ensuring that every worker in Pennsylvania has a safe and healthy work environment and the protections afforded them through labor laws. To that end, contractors and grantees of the Commonwealth must certify that they are in compliance with Pennsylvania's Unemployment Compensation Law, Workers' Compensation Law, and all applicable Pennsylvania state labor and workforce safety laws including, but not limited to:

1. Construction Workplace Misclassification Act
2. Employment of Minors Child Labor Act
3. Minimum Wage Act
4. Prevailing Wage Act
5. Equal Pay Law
6. Employer to Pay Employment Medical Examination Fee Act
7. Seasonal Farm Labor Act
8. Wage Payment and Collection Law
9. Industrial Homework Law
10. Construction Industry Employee Verification Act
11. Act 102: Prohibition on Excessive Overtime in Healthcare
12. Apprenticeship and Training Act
13. Inspection of Employment Records Law

B. Pennsylvania law establishes penalties for providing false certifications, including contract termination; and three-year ineligibility to bid on contracts under 62 Pa. C.S. § 531 (Debarment or suspension).

CERTIFICATION

I, the official named below, certify I am duly authorized to execute this certification on behalf of the contractor/grantee identified below, and certify that the contractor/grantee identified below is compliant with applicable Pennsylvania state labor and workplace safety laws, including, but not limited to, those listed in Paragraph A, above. I understand that I must report any change in the contractor/grantee's compliance status to the Purchasing Agency immediately. I further confirm and understand that this Certification is subject to the provisions and penalties of 18 Pa. C.S. § 4904 (Unsworn falsification to authorities).

Brian K Gower	August 29, 2023
Signature	***Date***
Brian K. Gower	
Name (Printed)	
Vice President	
Title of Certifying Official (Printed)	
Energy Systems Group, LLC	
Contractor/Grantee Name (Printed)	

EXECUTIVE SUMMARY

EXECUTIVE SUMMARY

Energy Systems Group (ESG) is pleased to submit this proposal in response to the SCI Mercer 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 work with our clients during the Investment Grade Audit Phase to design the best project to meet our client's most important needs.

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 ***830 energy efficiency and facility infrastructure improvement projects totaling over $4.1 Billion for more than 530 Customers in 39 States. ESG is licensed in 48 States.***

Our growth and expansion come 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.

ESG has extensive experience working in Correctional Facilities and we are very excited that we were able to develop a **budget-neutral Base Project which fully pays for itself through savings for SCI Mercer and includes nine of the seventeen Core ECMs.**

Per the guidelines of the RFQ, ESG was also able to develop a larger Secondary GESA Project for PA DOC consideration, which includes Energy Related Cost Savings. This larger GESA Project is an example of many ECMs that could be bundled together to drastically improve the SCI Mercer infrastructure and operations

The Energy Systems Group Approach

- ✓ **Transparent Open Book Pricing:** Open Book Pricing allows ESG to be your advocate, a true "bottom up project build", where the focus is on efficiency, value and project performance not margins.
- ✓ **Green Build Process:** ESG is committed to environmental stewardship and the conservation of our natural resources. Our Engineering, Design and Construction process utilizes the Green Globes Certification guidelines to minimize our impact to the environment as well as provide a tangible measuring stick of success.
- ✓ **Engineering Capacity:** ESG's Engineering Team and our Engineering Center of Excellence (ECOE) will be supporting this project. CJL Engineering will provide supplemental design services as needed. CJL Engineering is well versed in all DGS requirements and has a long record of successful State projects.

Statements Regarding RFQ Requirements

- Energy Systems Group (ESG) has received and acknowledged all five bulletins released by PA DGS pertaining to the SCI Mercer RFQ.
- ESG has not included any cost information (ECMs and construction cost or energy savings) in the SCI Mercer 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 15 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

The **Inflation Reduction Act (IRA)** is a recently enacted legislation, that now allows direct payment to a tax-exempt public entity, such as State Government Agencies, to be eligible for of the creation of sustainable technologies Investment Tax Credit (ITC). The ITC credits are a dollar-for-dollar reduction and would be for the installation of solar, EV chargers, combined heat and power systems, and other renewable energy sources. By providing a credit for the installation of sustainable technologies, the Act aims to make these technologies more affordable and accessible for public entities. This, in turn, is expected to increase the adoption of sustainable technologies, which will help to reduce greenhouse gas emissions and mitigate the effects of climate change.

Currently the ITC has many tiers and bonuses depending upon technology, prevailing wage rate inclusion, American Made products as well as need-based areas. Further guidance from the Federal Government is forthcoming and ESG's subject matter expert regarding the IRA is at the forefront and will ensure any applicable IRA funding is apply to the final IGA Project for this GESA opportunity. **A more detailed analysis of IRA percentages and areas that apply to SCI Mercer is listed in the Appendix section of this submission.**

Our team spent a considerable amount of time talking with SCI Mercer staff to fully understand the needs and desires most important to the staff, and the PA Department of Corrections, relative to this SCI Mercer GESA project. We feel our proposed GESA project addresses all the important issues brought to our attention by the SCI Mercer 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.

Environmental Impact. This project, at a minimum, SCI Mercer's project will reduce your carbon footprint in the short and long term, as depicted in the environmental impact as we focus on decarbonization and sustainability. Below is your environmental impact over your eighteen-year project term.

4.86 Million Pounds of Coal Burned

956+ Vehicles Driven in a Year

4,341 Metric Tons of CO2

10,040 Barrels of Oil Consumed

5,176 Acres of Forest for a Year

Energy for 845+ Homes for a Year

VOLUME I - TECHNICAL SUBMISSION

2-5.1 Project Management Team Overview

(Suggested number of sheets/pages: 2 sheets plus a single 11 x17 sheet, front only, for Organization Chart)

A. Provide Project Team Organization Chart that graphically depicts the hierarchy and reporting structure of the Team members, with specific personnel, and their roles, identified.

1. Personnel identified should include, as practical, executives, project managers, etc. down through field supervisors.

B. Provide a brief description regarding the assignment of responsibilities for major tasks and the interrelationships and management structure of the overall Project Management Team. Describe the reporting hierarchy and the history, if any, of working relationships with other firms on the Project Management Team, including the process utilized in selecting subcontractors.

C. The Evaluation Committee will consider the degree to which the proposed Management Team will effectively manage this Project. Information considered in this evaluation includes: the proposed management organization, roles and responsibilities, qualifications and experience of key personnel, and quality control of all subcontractors. Quotes should therefore discuss:

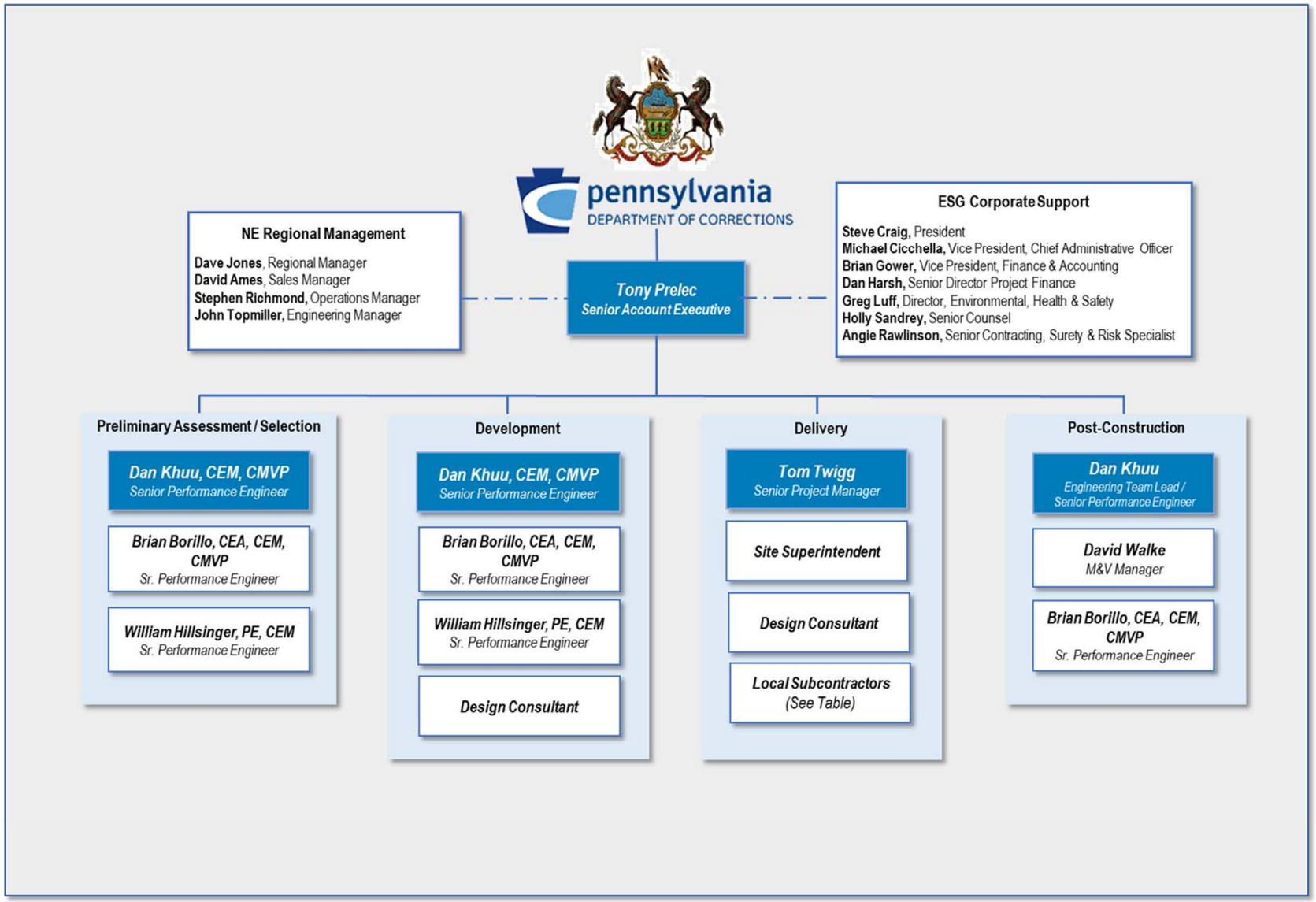
1. A clear assignment of responsibility for various Project tasks to specific individuals and assignment of qualified individuals to fulfill designated responsibilities;

2. The percentage of time that key personnel are assigned to this Project; and

3. The ability to manage construction, repairs, regular service and emergencies effectively.

D. If awarded a contract, the GESA Contractor shall not substitute personnel identified on the Project Management Team and shall not alter the structure of the Project Management Team organization chart without prior written authorization by the DGS.

A. Organizational Chart



ESG SUBCONTRACT RESOURCES - SCI MERCER	
Firm	**Work Scope**
Air Management	Mechanical
BERetrofit	Transformers
Chesapeake Controls	Controls
ECO Engineering	Solar PV
H2O Applied Technologies	Water / Insulation
ICS	Water / Plumbing Controls
Lighting Services Inc.	Water / Lighting
Melink	Kitchen Hood Controls
Powersmiths	Transformers
Refridgeration Tech	Walkins / Freezer Control
Renick Brothers	Mechanical

B. Offeror described the assignment of responsibilities and special tasks for each team member.

Below is a list of the Energy Systems Group (ESG) showing the assignments of the Core Team Members that are directly or indirectly responsible for different aspects of Energy Performance Contracting Services for the PA Department of Corrections SCI Mercer GESA 2023-2 project. The core project team members assigned to the SCI Mercer 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. The same project team has been also managed the SCI Muncy and SCI Fayette GESA projects.

Senior Account Executive, Tony Prelec	Procurement, Investment Grade Audit (IGA) work reviewer and post construction support.
General Manager, Dave Jones	Procurement, financing, contracting, project resourcing, performance team.
Sales Manager, David Ames	Procurement, financing, and contracting.
Engineering Manager, John Topmiller	Engineering work assignment and management during IGA and other project phases, and procurement.
Operations Manager, Stephen Richmond	Overall project management responsibility, construction management, commissioning, and project turnover.
Performance Engineers, Dan Khuu, William Hillsinger and Brian Borillo	IGA work, design and review, commissioning and diagnostic testing, M&V and warranty services.
Project Manager, Tom Twigg	IGA work, procurement, construction management, training, post-construction support and warranty services.
Site Superintendent	Procurement, construction management, training, post-construction support and warranty services.

SUBCONTRACTOR SELECTION

Our ESG team has worked with some extremely talented subcontractors, several of which we intend to utilize for specific ECMs on this project. ESG has utilized SB/SDB/VBE subcontractors such as Lighting Services Inc., H20 Technologies, BERetrofit, and Air Management on past GESA projects, and we are confident that they will accomplish their assignments in a timely and cost-effective fashion and fully stand behind their work. Several 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. We also have the following additional subcontractors engaged for the SCI Mercer GESA project, whom we have used in the past with great success, Chesapeake Controls, Powersmiths, Schultheis Electric, SSM Industries, ICS, Melink, ECO Engineering, Standard Solar, and Refrigeration Technologies.

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.

C1. Assignment of responsibilities for various project tasks

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. Listed below is a more detailed description of specific activities and how each core team member interrelates to other members of the team:

TASK / TEAM MEMBER	Tony Prelec	Dave Jones	David Ames	John Topmiller	Steve Richmond	Dan Khuu	Brian Borillo	William Hillsinger	Tom Twigg	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 & Maintnenace Support	✓	✓		✓	✓	✓	✓	✓	✓	
On-going Training	✓				✓				✓	

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 Role			
Project Manager (1)	70%	Mechanical and Electrical Engineers (2)	25%
Site Superintendent	100%	Account Executive (1)	35%
Regional Operations Manager (1)	30%	Manager Environment, Health, Safety (1)	20%
Mechanical Superintendent (1)	30%	M & V Specialist (1)	10%
Senior Performance Engineers (3)	75%	Subcontractor's Superintendents	60%

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 Mercer 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 Mercer 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 DOC and SCI Mercer on-site designated representatives. ESG will develop a protocol specific to the SCI Mercer facility and in conjunction with DGS representatives concerning response to emergencies. ESG, will develop a contingency plan specific to the SCI Mercer 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.

D. If Awarded Contract, GESA Contractor Shall Not Substitute Personnel identified on the Team

We are aware of this requirement and agree to adhere to the policy as stated.

2-5.2 Work Plan for This Project

ESG's work plan for SCI Mercer's proposed GESA project is described below. Our proposed Base project includes nine (9) Core Energy Conservation Measures (ECMs) defined by the RFQ and four (4) additional ECMs developed by ESG Engineers. Furthermore, utilizing additional Energy-Related Cost Savings, our Secondary Cash Flow project addresses a total of fifteen (15) Core ECMs and nine (9) additional ECMs that further enhance the project's overall economic, technical, and environmental benefits.

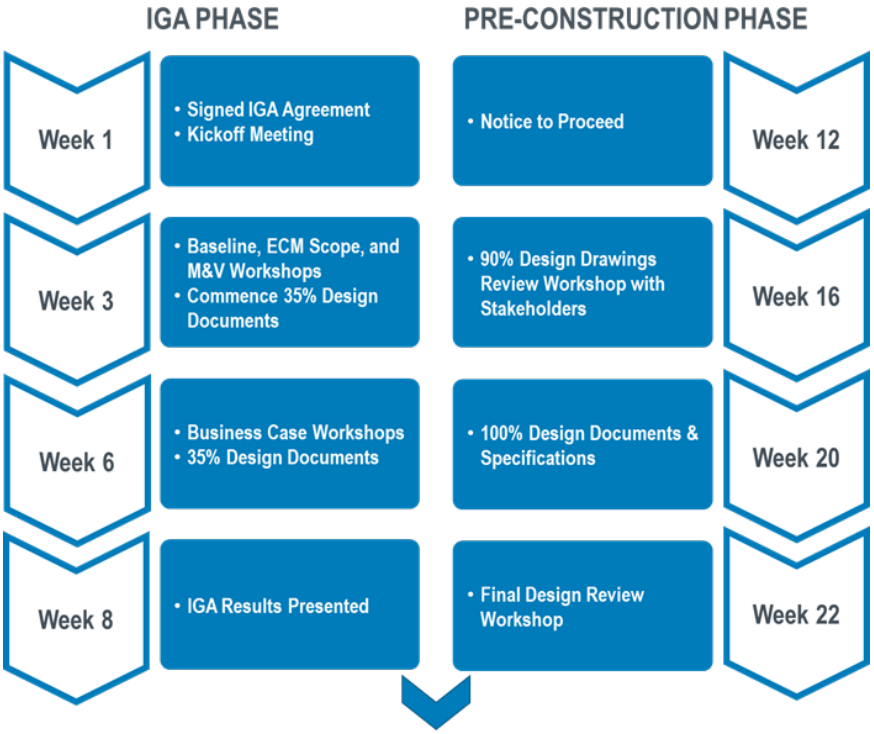
ESG Base and Secondary Projects - Proposed ECMs

ECM #	Description	ESG Base Project	ESG Secondary Project
ECM #1	Install Solar PV System		
ECM #1a	Solar PV System (PPA) Base	✓	
ECM #1b	Solar PV System (PPA) Alternate		✓
ECM #2	LED Lighting Upgrade	✓	✓
ECM #3	Extend natural gas service		✓
ECM #4	Convert electric heating to natural gas (Included in ESG #6 Central Utility Plant)		✓
ECM #5	Convert electric hot water heating to natural gas (Included in ESG #6 Central Utility Plant)		✓
ECM #6	Water Conservation	✓	✓
ECM #7	Controls Upgrade - Water Systems	✓	✓
ECM #8	Convert existing HVAC units to Heat Pumps (Included in ESG #6 Central Utility Plant)		✓
ECM #9	Chiller Upgrade (Included in ESG #6 Central Utility Plant)	✓	✓
ECM #10	Geothermal Investigation	✓	✓
ECM #11	Geothermal Expansion	✓	✓
ECM #12	Geothermal Power		
ECM #13	Convert Kitchen Appliances to Natural Gas		✓
ECM #14	Controls Upgrade - HVAC Systems		✓
ECM #16	EV Charging Stations	✓	✓
ECM #17	Replace Main Transformer	✓	✓
ESG #1	Install a Potable Water Plant	✓	✓
ESG #2	WWTP - Control System Upgrade	✓	✓
ESG #3	Replace Step Down Transformers		✓
ESG #4	GENSET Energy Enhancement	✓	✓
ESG #5	Kitchen Hood - Control (Melink)	✓	✓
ESG #6	Central Utility Plant		✓
ESG #7	Install Propane Blending Station		✓
ESG #8	Building-level Natural Gas Sub-metering		✓
ESG #9	Replace (4) Bard Units on Building 28		✓

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

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 familiar with the GESA Project Design Manual and 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 previous GESA projects, consisted of the following steps:



ESG intends to use our in-house Engineering Center of Excellence as our Design Consultant as well as CJL Engineering for a portion of the design, as long as they are not selected by PA DGS for the Energy Consultant for SCI Mercer.

CJL is an engineering and design firm based in Johnstown, Pennsylvania, with an excellent background in MEP design. ESG ECOE is our in-house group of design engineers who have worked on numerous diverse and complex projects for the last 30 years. ESG will utilize our design consultants (CJL and/or ESG ECOE) to prepare 35% of 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 the design consultant(s) 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.

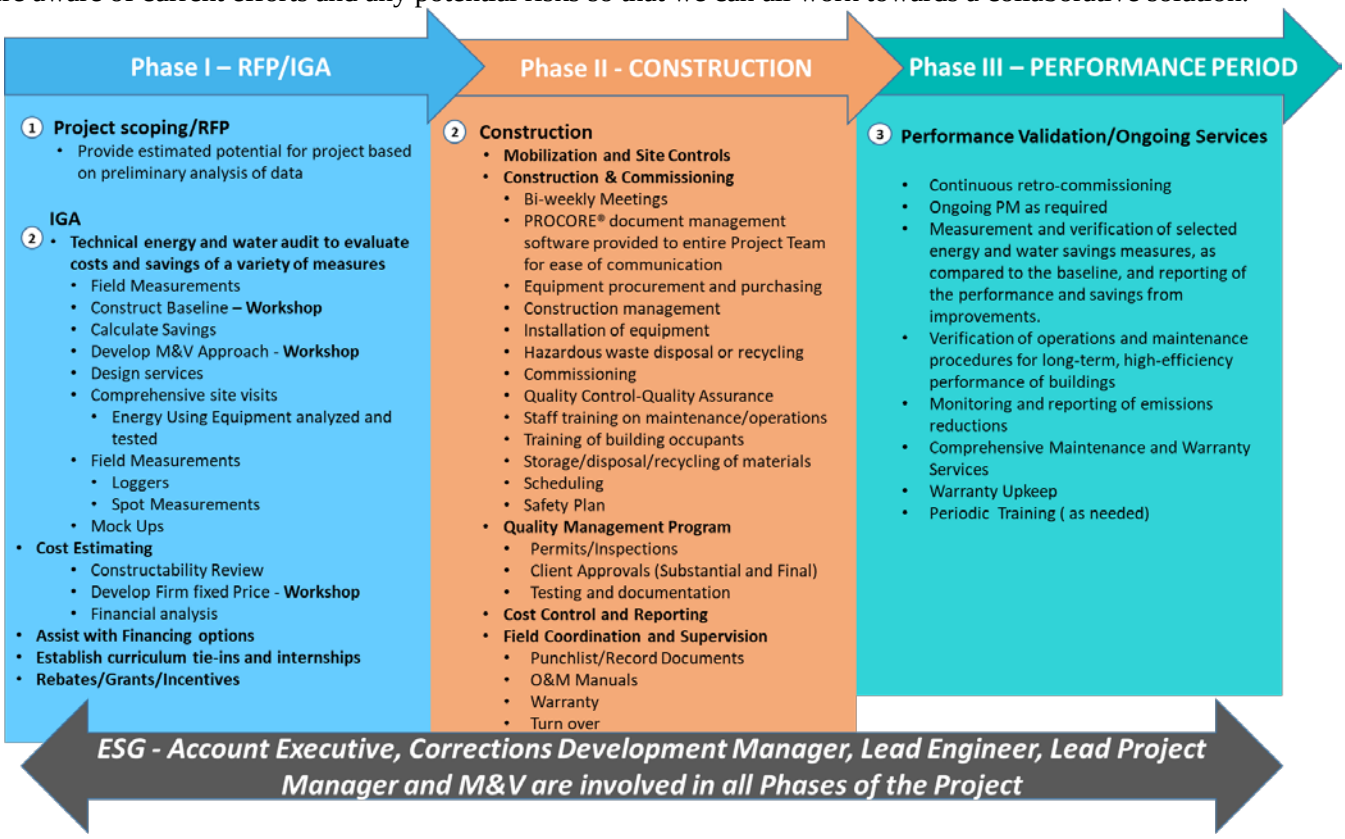
2. Offeror identified potential design issues

Some key design issues that 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.
Selection of the "right" equipment that will maximize energy savings for SCI Mercer and allow for the procurement of that equipment	Working with our design professionals to identify those needs so we can share submittals for approval. Equipment can be ordered in an expedited fashion.
Selection of equipment that will last and continue to operate as designed in a corrections environment	ESG employs a corrections expert with many years direct corrections experience who is involved in every facet of the project. Our corrections expert has the experience and know-how to vet all equipment and systems to ensure they are corrections-hardened and will survive and operate in the corrections environment.
How to integrate the JCI control systems with the proposed DDC control system while still allowing SCI Mercer to operate both systems simultaneously and on a daily basis	Close communication with SCI Mercer and the ESG subcontractor to ensure seamless and timely transition without impact on the Institution or its operating systems
Lighting Levels need to meet the ACA and/or PA security requirements	ESG will administer sample measurements of lighting level in representative areas of the facility to confirm conformance with ACA or applicable PA standards, to determine where levels may need to be rectified.
Enhancing the operation of heating, ventilation and air conditioning, and associated control systems in a fully occupied Corrections facility	Communication with SCI-Mercer 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)

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

Clear and on-going communication will be a key to managing and executing the project. The communication will start during the RFP process. Below are 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 include workshops and meetings during all phases to ensure 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 ESG's correctional team fully dedicated to the SCI Mercer project, the Commonwealth of Pennsylvania can rest assured 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 the scheduling of projects to be done seasonally as needed and to conform to SCI Mercer's operational needs fully.

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% of design packages will be prepared for DGS' Energy Consultants for approval in an expedited and timely manner. The construction phase begins after the submittal review and approval process to allow all material and equipment to be ordered and phased in as desired by SCI Mercer. The timing for each Energy Conservation Measure (ECM) shall be defined within the implementation schedule.

ESG cannot overstate our excellent track record of developing and completing projects in correctional facilities in the time allocated by our clients. We focus on understanding how we are impacting the facility's 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 construction and project completion. Below is a table indicating Base ECMs and additional ECMs identified by ESG that may require ordering lead time, along with the estimated lead times, which illustrates the longer lead time items in descending order.

Proposed ECMs	Critical Material & Equipment	Estimated Lead Time
Solar installation - PPA	Switchgear	**20+ weeks**
Potable water plant	Tanks, valves, pumps	**20+ weeks**
Geothermal systems	Heat pumps, controls	**10-12 weeks**
Replace main transformer	Transformer, wiring	**10-12 weeks**
Water conservation and controls	Fixtures, ICON controllers, valves	**6-8 weeks**
WWTP Controls	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**
GENSET Energy Enhancement	N/A	**N/A**

After the IGA acceptance by DGS and DOC, as well as the 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 Mercer 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
- Designate final laydown areas with DOC and the SCI Mercer staff
- Discuss the proposed final work schedule with SCI Mercer staff and security

- Determine the number of daily escorts required based on the schedule
- Review the 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 Mercer and our subcontractors
- Complete all ECMs in a timely fashion
- Commissioning of all systems
- Provide detailed staff training for the SCI Mercer 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

While lead times have improved since the pandemic components are still experiencing extended lead times. For the proposed ECMs, the critical long-lead items are special-order electrical system components, such as switchgear and variable frequency drives and some special component mechanical system. We have recently ordered these pieces of equipment and have lead times of over 30 weeks. The system components are critical because:

- Full functional systems cannot be completed until these critical components have arrived and are installed.
- Solar panel fields run the risk of being installed but cannot produce power without the switchgear.
- The propane mixing station must be sized and completed in place at or prior to the completion of the boiler plant to ensure that fuel switching can be properly commissioned and the boilers tested on the propane back-up system.
- 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., electrical switchgear) will be expedited in the submittal process.

During the design process, ESG will work hand-in-hand with these key equipment suppliers along with the contractors to ensure every attempt is made to minimize supply chain disruptions. Such activities will be presented in our detailed project schedule and can be tracked during our biweekly meetings/calls.

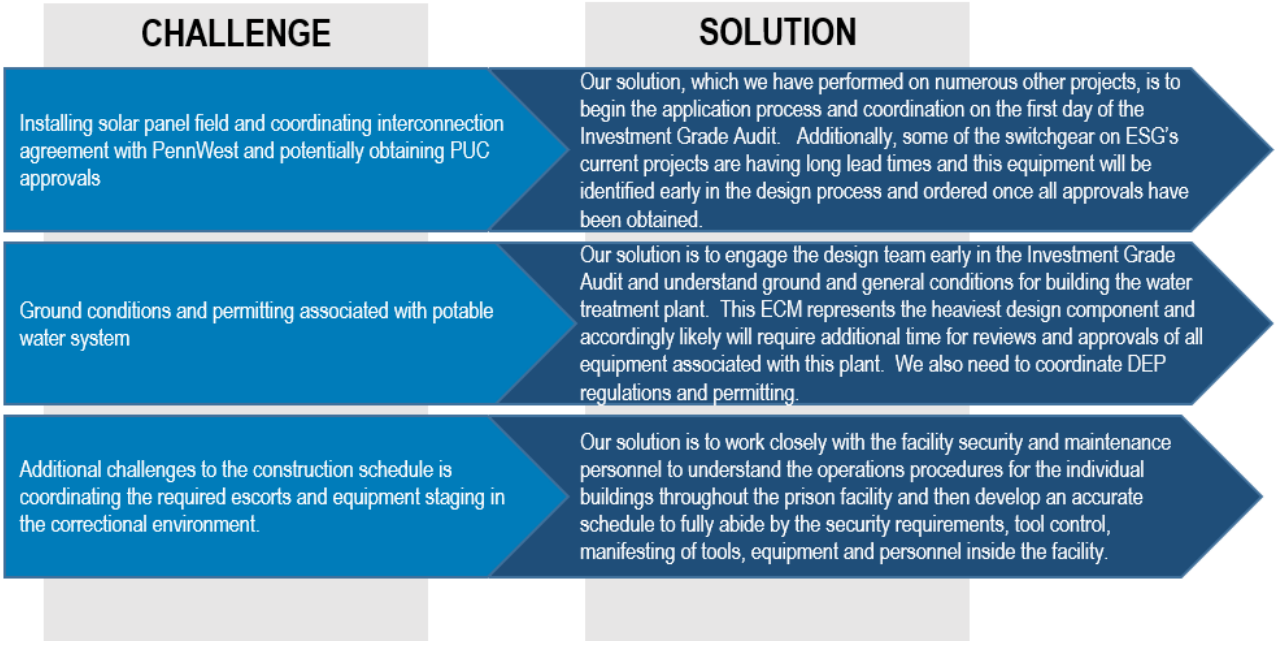
Additionally, since Energy Systems Group has a vested interest in the complete success of this project, DGS can be assured of the following:

- 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 Mercer's operations and maintenance burden.
- Every product or application associated with this project will meet applicable standards, such as ACA, ASHRAE's guide for equipment efficiencies, Illuminating Engineering Society guidelines for lighting standards or other PA Corrections 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 Mercer, 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.

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 background 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 in their cells.*

During the IGA phase, the ESG Delivery team shall meet with SCI Mercer staff to prepare a preliminary implementation schedule for the project. The development of this schedule will take into account SCI Mercer's 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 baseline working construction plan, which will be redefined and updated with the development of the IGA. ESG will also utilize the preliminary implementation schedule to assist subcontractors with addressing or confirming procurement and installation requirements associated with this project.

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 onsite 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 Mercer 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:

Activity	Reason
Lighting Retrofits	Replacement/retrofitting of lighting
Install DDC Controls	Access to sensors for new wiring and sensors
Water Conservation	Access to cell toilet chases for replacement of flush valves/installation of new controls
Kitchen Hood Controls	Access to hoods, although work can take place on off hours so as not to inhibit the Kitchen activities
Transformers	Access to transformers and replacement outages
Walk-In Box Controls	Access to walk-ins, although work can take place on off hours so as not to inhibit the Kitchen activities
Retro-commissioning	Access to diffusers, registers and grilles; access to mechanical rooms and/or roofs
Housing Unit HVAC Improvements	Access to control rooms and roofs
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. They shall be stored at an approved interior location within a designated secured area as approved by the SCI Mercer 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. The final determination of 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 the Funding Agency, site(s), DGS;

Construction coordination and meetings will be 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 the installation of an individual energy ECM, such as Lighting. The facility management staff, subcontractor project manager, and ESG project management attend these meetings. We review the installation matrix from the confirmed scope of work, coordinating activities with the facility through ESG on-site supervisors for daily activities, including worker facility policies, safety requirements, security coordination, and daily reports.
2. Customer Progress Meetings occur weekly or bi-weekly based on the amount of activity on the project site. These meetings 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 meetings provide a project snapshot of installation activities.
3. Subcontractor Meetings occur weekly and as needed between ESG project staff, facility staff, and subcontractor(s) coordinating with facility management staff and security for daily activities. These meetings also resolve any project issues and bring resolution to the facility management and staff.
4. Closeout Meetings occur after an energy conservation measure (like lighting) is completed. These meetings are attended by the facility management staff, ESG project management, and the subcontractor; we review the confirmed scope of the work matrix and make sure all items are complete. The subcontractor summarizes the installation; we review the operation and maintenance manuals, warranty applications/procedures, training, and entire project sign-off documents with the designated person. These meetings ensure the systems are fully operational for SCI Mercer.

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 Mercer 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.

Safety is not simply a program at ESG—it is a mindset and an expectation of our employees and subcontractors. Our primary concern is keeping our employees, subcontractors, and customer personnel safe while implementing construction projects. 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) underscores our company's focus on construction site safety.

Year	OSHA Recordable Incident Rate (RIR)	Experience Modification Rate (EMR)	Days Away Restricted Time Rate (DART)
2022	0.61	0.76	0.61
2021	0.61	0.96	0.82
2020	0.84	0.85	0.84
2019	0.55	0.82	0
2018	0.59	0.65	0.30

EMR compares your workers' compensation claims experience to other companies similar in size that 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.
Accident prevention is of primary importance in all project delivery and administration phases. It is ESG's responsibility to provide safe and healthy working conditions and establish and insist on safe practices 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 must establish a specific safety plan for the project at the construction site. The safety plan details 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 daily and document any incidents, should they occur. Selected subcontractors undergo 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 Mercer project, including a verification process to ensure that all personnel understand and are competent in applying compliance and safety regulations.

The project team will provide a facility and operational framework that integrates health, environmental, and safety concepts into daily work activities. ESG's Safety Manager also assesses potential health and safety hazards, performs site inspections, ensures the provision of needed signage, enforces 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. Our Project Procurement Manager facilitates these steps during the subcontractor bidding process. ESG's Safety Manager reviews all safety evaluations.

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 understands the possible risks that could be located on the job site. This questionnaire is also used to indicate 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 can address and work safely in workplace hazards. For example, suppose we anticipate the subcontractor will be working in a confined space and need the necessary permitting. In that case, we will ensure they have the proper program and internal support structure to perform the required tasks.

10. The 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 session. 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 the Construction and Implementation plan.

ESG has a continuous Quality Control Process for assuring performance meets or exceeds the DGS/SCI Mercer'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

The Engineering Quality Control (EQC) and Construction Quality Control (CQC) Plans are outlined.

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

The EQC/CQC Plan will include a Project Communication Plan that indicates the frequency of design meetings and the agenda for each session. The Communication Plan shall detail the critical design decision points and ensure 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 appointments. The weekly sessions include all disciplines and parties involved in the project development, delivery, and commissioning. An Engineering Quality Control Manager is designated for each discipline and ensures 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 next section. Together these processes are an integral part of the EQC and CQC aspects of the Critical Path Method (CPM) design-build delivery method.

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

ESG has a successful track record of providing valuable technical training and supplements its highly skilled training staff with experienced engineers and project personnel. While some training areas are standardized, most of the supplied instruction is customized and can be tailored to be directly associated with the conservation measures implemented during construction. ESG works closely with all key staff and facility operations personnel to deliver educational training and seminars on the operation of their specific ECMs as new assets are being brought online and will continue this training during the guarantee and maintenance services phase. ESG encourages facility staff to be present, when possible, during equipment installation to further enhance their working knowledge.

This customized and continual training program ensures the correct operation of equipment, optimal efficiency, and maximum extension of equipment life throughout the agreement term. What has worked well for ESG with previous clients is to combine on-site system-specific training with equipment-sponsored classroom training. We have always found that the activity that occurs on-site and is done on the specific equipment installed there is always more meaningful than classroom work. This training will result in staff members who continually improve and sustain operating efficiency.

Customized Maintenance Staff Training and cross-training

Personal interviews of maintenance staff are conducted by an ESG Training Specialist as an integral part of the maintenance staff training program to determine skill levels based on professional experience, education, and prior training. Utilizing the information gathered in these interviews and with input provided by on-site personnel, the ESG Training Specialist selects appropriate classroom educational modules and develops custom training tailored to the needs and skill levels of the staff to be trained.

A typical program could contain three classroom days of instruction and two days of hands-on training on actual ECM equipment and systems for each staff member. The interviews are conducted before the project installation begins and provide an opportunity to educate the maintenance staff about the project and obtain their support and assistance from the beginning of the project. ESG will work with PA DOC personnel to evaluate individual capabilities and propose tailored training programs that meet the needs of the DOC.

Manufacturer Training

ESG is vendor- and product-neutral, with no vested interest in any particular vendor or manufacturer. This impartiality allows us to incorporate the training from the appropriate manufacturer or service provider as the situation warrants. Most manufacturers offer excellent training, but the movement is often focused solely on their product lines. ESG can incorporate an annual training allowance, paid for from guaranteed savings, which allows PA DOC to take advantage of the expertise of multiple manufacturers that can provide both an application and theory overview for on-site personnel. ESG will coordinate and organize vendor training on proper equipment operation for all personnel and will work with each significant equipment manufacturer to develop training manuals and a core curriculum that includes assembly/reassembly instructions, troubleshooting tips, and parts lists. This training will include operation, maintenance, and troubleshooting for all major equipment items.

On-Site Training

ESG provides on-site training for all equipment installed under the guaranteed energy performance contracting program. Our research indicates that the most effective training takes place when performed on the actual equipment. Additionally, on-site training allows smaller class sizes, customized curriculum, and less downtime.

Training can be performed throughout the contract to update skills, provide the latest information, and train new personnel. Training programs are recorded as a reference tool for personnel and new staff.

ESG will prepare tutorials and other training materials (including videos, CDs, and text) that will assist the DOC in training new staff and provide a library of training materials for existing personnel. Part of the on-site training involves monitoring strategies to ensure that PA DOC personnel know how to properly monitor the performance of all equipment installed as part of the project and any related systems involved in the savings to be produced.

Manuals and Occupancy Permits

ESG provides a complete set of binders with all relative equipment manuals and operational procedures for all equipment installed during the project. Field personnel and their managers at each site are given multiple copies. Copies of the applicable Occupancy Permits are also provided for each location and PA DOC upper management.

Commissioning

Commissioning is a quality assurance process for installing new or renovated systems and equipment in a building. It is used to achieve, verify, and document each system's performance to meet the building's operational needs within the capabilities of the registered design and specified equipment capacities. Successful commissioning includes preparing manuals and training operation and maintenance personnel.
The result of commissioning should be fully functional equipment and systems that can be appropriately operated and maintained throughout the useful life of the building. Commissioning activities and processes will be customized to DOC's specific scope of work. A successful commissioning plan includes well-structured turn over documents (i.e., manuals, as-builts, submittal data, final-sequences-of-operation, etc.) that easily reference equipment and system operation and maintenance. DOC should expect the following results from successful commissioning:

- Improved operator knowledge of how building equipment and systems should operate or be maintained;
- Reduced ongoing training requirements;
- Performance by the Engineers' intent and the contract documents;
- Reduced downtime due to more straightforward diagnosis of failures;
- Improved ability to provide accurate information to occupants regarding maintenance of environmental conditions in the occupied space throughout the year;
- Increased comfort and reduced complaints; and,
- Reduced operating costs due to optimized performance and improved operational techniques.

All participants in the project have a commissioning responsibility. Participants include DOC's maintenance personnel, ESG project management and engineering personnel, DOC, and all applicable subcontractors. The building operation and maintenance managers will be brought into the commissioning process early, preferably during the design phase. Their knowledge of occupancy, special lighting, anticipated equipment loads, and other factors should influence the design and set performance objectives. The commissioning plan will document the responsibility of each member of the commissioning team.

The ESG Project Manager has the following roles and responsibilities during the commissioning process:

- Provide management expertise and oversight of on-site vendors and contractors, control schedules, and inform other team members of important events;
- Coordinate all construction activities with facility personnel;
- Perform quality control functions, particularly in areas of pre-commissioning; and,
- Provide technical expertise in testing and cost review and resolve disputes and claims.

ESG's subcontractors are responsible for the following:

- Prepare and submit documentation on their respective equipment and systems;
- Submit shop drawings detailing equipment layout as outlined in the submitted specifications;
- Along with the manufacturer, perform equipment start-up and testing;
- Correct system deficiencies without additional costs to DOC and complete a follow-on test;
- As required by any code inspections, document the entire system design and start-up process and include the necessary certifications;
- Prepare record drawings from redline documents detailing the construction process with changes that show the actual work performed, with variations that occurred during construction; and,
- Obtain manufacturers' warranties and guarantees for placement within the O&M Manuals.

ESG will prepare a commissioning acceptance form for signature by DOC representatives, detailing the proper functioning of all required systems and equipment.

Once systems have been placed in operation and commissioning is complete, our team will provide final detailed training and detailed documentation (drawings and manuals for all equipment) for building managers to effectively and efficiently operate the upgraded systems. ESG will provide system walk-downs and equipment training to all applicable DOC staff.

2-5.3 RFQ Project Schedule

(Suggested number of sheets/pages: 2 sheets, plus a maximum of 2 single - sided 11x17 sheets).

This RFQ Project Schedule shall not be construed as the Final CPM Schedule. Do not submit a full and complete detailed CPM Schedule in the Technical Submission. DGS does not accept the logic or durations of the activities in this RFQ Project Schedule. The purpose of this RFQ Project Schedule is only to allow DGS to evaluate and score the Offeror's scheduling ability. After the GESA Contract is executed, the successful GESA Contractor shall submit a full and complete project schedule per the requirements of the General Conditions and Project Administrative Procedures.

A1. Critical Aspects of Schedule and Associated Risks

The ESG project delivery team's approach 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 PA DOC and SCI Mercer 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, Procurement of Major Equipment, Commencement of Onsite Work, Final Inspection of All Construction, Commissioning of the Project, and Training of Funding Agency Personnel.**

- 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.

The main risks associated with the project schedule at this point in time are extra-long lead times for certain types of critical equipment which still carry over from the impact of the COVID pandemic and making certain we have access to all sites during normal business hours when the buildings are fully occupied along with availability of necessary escorts provide by PA DOC. If most OEM providers of equipment are back to standard equipment lead times and PA DOC provides access to the buildings and the necessary escorts the schedule provided will be relatively accurate.

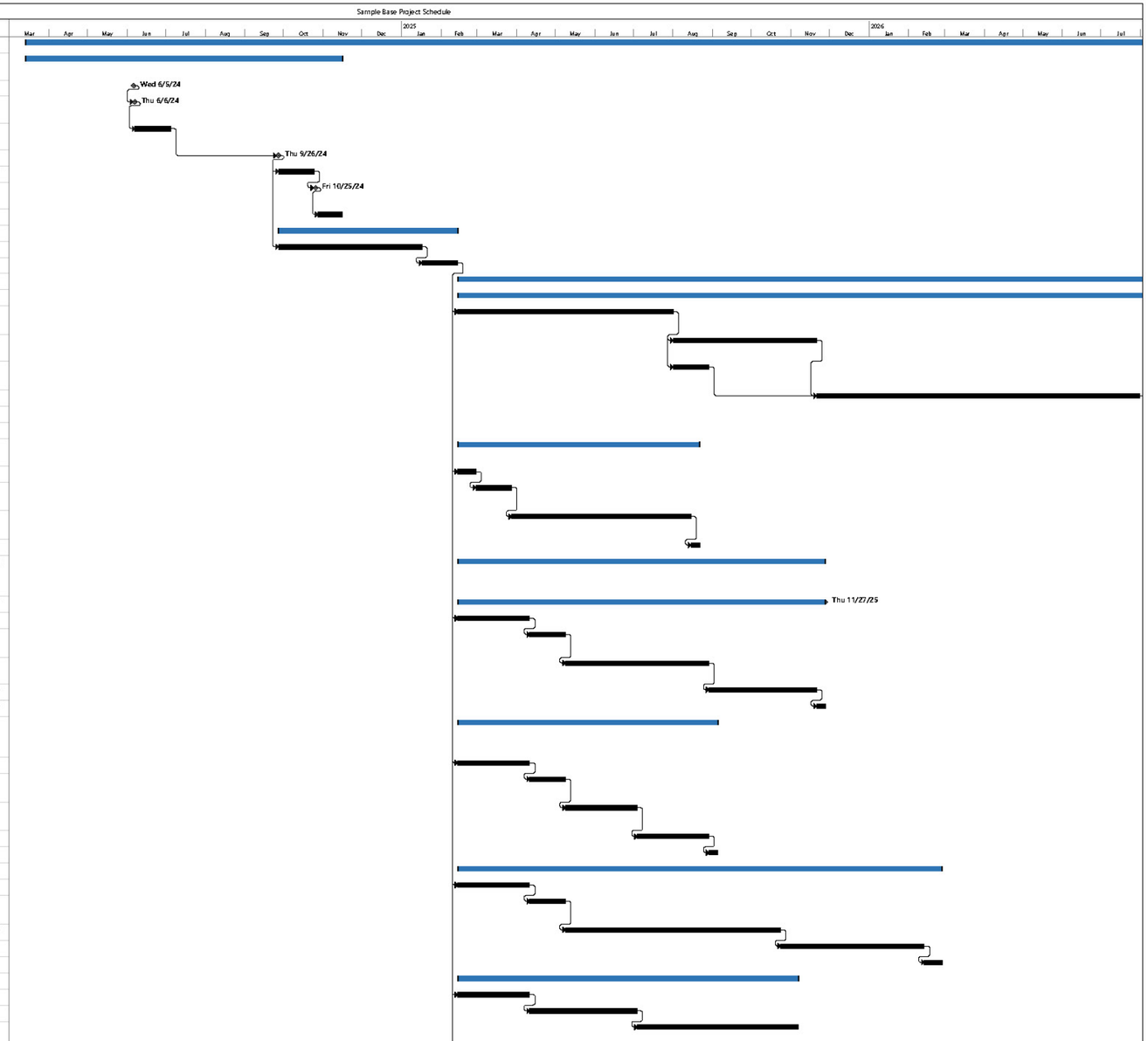
The key aspect of ESG's preliminary schedule is its ability to have the necessary work completed, tested, commissioned and performance tested within the timeline anticipated by PA DOC.

A2. Project Schedule Graphic

The schedule presented on the following pages provides what we believe to be a carefully planned realistic representation of the schedule for the Base Project

Sample Base Project Schedule

ID	Task Name	Duration	Start	Finish
1	**State Correctional Institution - Mercer**	**741 days**	**Thu 3/14/24**	**Thu 1/14/27**
2	**Contract Procurement - Investment Grade Audit**	**177 days**	**Thu 3/14/24**	**Fri 11/15/24**
3	Investment Grade Audit Duration	60 days	Thu 3/14/24	Wed 6/5/24
4	Submission of Investment Grade Audit	1 day	Thu 6/6/24	Thu 6/6/24
5	State Review Of The Investment Grade Audit	20 days	Fri 6/7/24	Thu 7/4/24
6	Full Execution Of GESA Contract	60 days	Fri 7/5/24	Thu 9/26/24
7	Financing	20 days	Fri 9/27/24	Thu 10/24/24
8	ESG receives notice to proceed from DGS and DOC	1 day	Fri 10/25/24	Fri 10/25/24
9	Commencement onsite work	15 days	Mon 10/28/24	Fri 11/15/24
10	**Design and Material Submission**	**100 days**	**Fri 9/27/24**	**Thu 2/13/25**
11	Produce 100% Design Documents	80 days	Fri 9/27/24	Thu 1/16/25
12	DGS Review and Approval	20 days	Fri 1/17/25	Thu 2/13/25
13	**Procurement and Implementation**	**450 days**	**Fri 2/14/25**	**Thu 11/5/26**
14	**ECM-1A Install solar PV PPA**	**410 days**	**Fri 2/14/25**	**Thu 9/10/26**
15	Submittal Review and Interconnect Agreement	120 days	Fri 2/14/25	Thu 7/31/25
16	Procurement and Equipment Delivery	80 days	Fri 8/1/25	Thu 11/20/25
17	Submission and Approval of all Permits	20 days	Fri 8/1/25	Thu 8/28/25
18	Installation	180 days	Fri 11/21/25	Thu 7/30/26
19	Commissioning and testing	20 days	Fri 7/31/26	Thu 8/27/26
20	Training	10 days	Fri 8/28/26	Thu 9/10/26
21	**ECM-2 Convert all exterior and interior lighting to LED.**	**135 days**	**Fri 2/14/25**	**Thu 8/21/25**
22	Submittal Review	10 days	Fri 2/14/25	Thu 2/27/25
23	Procurement and Equipment Delivery	20 days	Fri 2/28/25	Thu 3/27/25
24	Submission and Approval of all Permits	100 days	Fri 3/28/25	Thu 8/14/25
25	Final Checkout and Training	5 days	Fri 8/15/25	Thu 8/21/25
26	**ECM-6 Provide water saving showerheads, toilet,urinals and faucets.**	**205 days**	**Fri 2/14/25**	**Thu 11/27/25**
27	**Mobilization and Implementation**	**205 days**	**Fri 2/14/25**	**Thu 11/27/25**
28	Submittal Review	40 days	Fri 2/14/25	Thu 4/10/25
29	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
30	Procurement and Equipment Delivery	80 days	Fri 5/9/25	Thu 8/28/25
31	Install equipment	60 days	Fri 8/29/25	Thu 11/20/25
32	Commissioning & Training	5 days	Fri 11/21/25	Thu 11/27/25
33	**ECM-7 Provide central monitoring and control system for water usage throughout the facility.**	**145 days**	**Fri 2/14/25**	**Thu 9/4/25**
34	Submittal Review	40 days	Fri 2/14/25	Thu 4/10/25
35	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
36	Procurement and Equipment Delivery	40 days	Fri 5/9/25	Thu 7/3/25
37	installation	40 days	Fri 7/4/25	Thu 8/28/25
38	Commissioning and training	5 days	Fri 8/29/25	Thu 9/4/25
39	**ECM-9 Upgrade exisitng chillers.**	**270 days**	**Fri 2/14/25**	**Thu 2/26/26**
40	Submittal Review	40 days	Fri 2/14/25	Thu 4/10/25
41	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
42	Order and receive equipment	120 days	Fri 5/9/25	Thu 10/23/25
43	Installation of pumps and chillers	80 days	Fri 10/24/25	Thu 2/12/26
44	Commissioning & Training	10 days	Fri 2/13/26	Thu 2/26/26
45	**ECM-10 Geothermal Investigation**	**190 days**	**Fri 2/14/25**	**Thu 11/6/25**
46	Design Review	40 days	Fri 2/14/25	Thu 4/10/25
47	Field Testing	60 days	Fri 4/11/25	Thu 7/3/25
48	Implementation of Recommendations	90 days	Fri 7/4/25	Thu 11/6/25



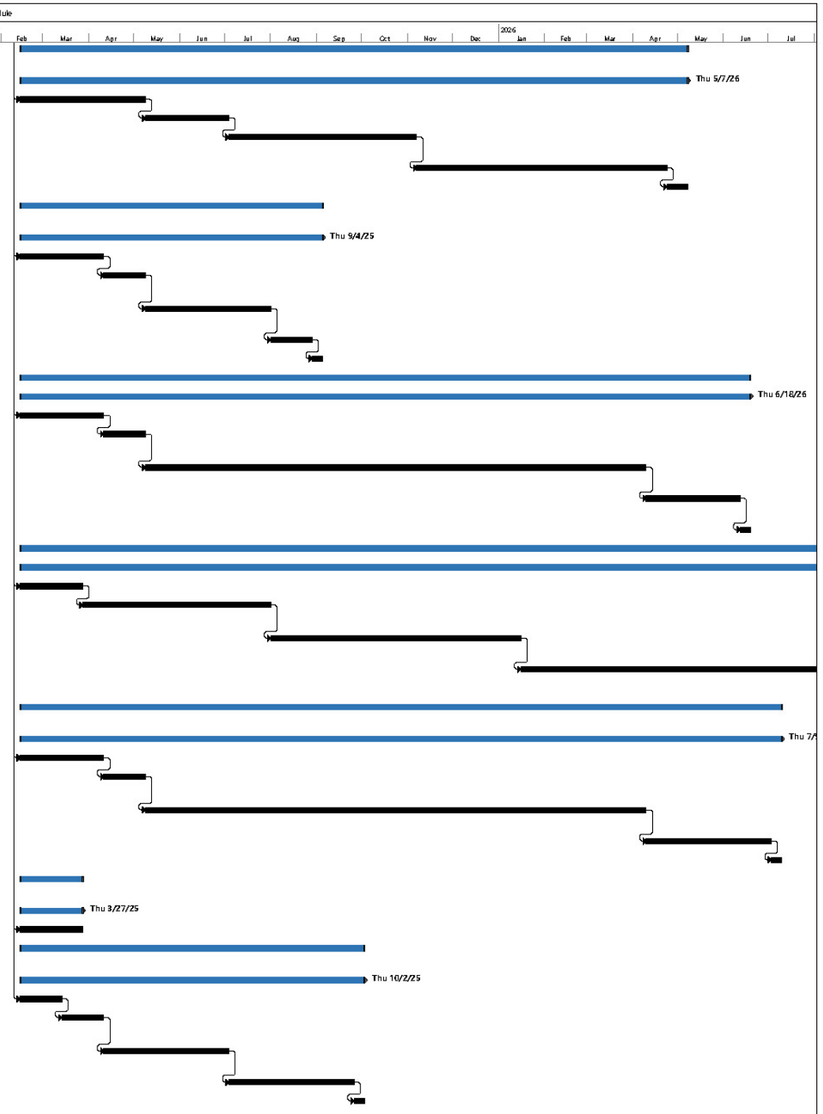
Project: Mercer preliminary - ck
Date: Fri 8/25/23

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

Page 1

Sample Base Project Schedule

ID	Task Name	Duration	Start	Finish
49	**ECM-11 Geothermal at Sally Port Building**	**320 days**	**Fri 2/14/25**	**Thu 5/7/26**
50	**Mobilization and Implementation**	**320 days**	**Fri 2/14/25**	**Thu 5/7/26**
51	Site survey and geotech	60 days	Fri 2/14/25	Thu 5/8/25
52	Submittal Review	40 days	Fri 5/9/25	Thu 7/3/25
53	Procurement and Equipment Delivery	90 days	Fri 7/4/25	Thu 11/6/25
54	Installation	120 days	Fri 11/7/25	Thu 4/23/26
55	Commissioning & Training	10 days	Fri 4/24/26	Thu 5/7/26
56	**ECM-16 Provide electrical vehicle charging stations**	**145 days**	**Fri 2/14/25**	**Thu 9/4/25**
57	**Mobilization and Implementation**	**145 days**	**Fri 2/14/25**	**Thu 9/4/25**
58	Submittal review	40 days	Fri 2/14/25	Thu 4/10/25
59	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
60	Procurement and Equipment Delivery	60 days	Fri 5/9/25	Thu 7/31/25
61	Installation	20 days	Fri 8/1/25	Thu 8/28/25
62	Commissioning & Training	5 days	Fri 8/29/25	Thu 9/4/25
63	**ECM-17 Replace main transformer.**	**350 days**	**Fri 2/14/25**	**Thu 6/18/26**
64	**Mobilization and Implementation**	**350 days**	**Fri 2/14/25**	**Thu 6/18/26**
65	Submittal review	40 days	Fri 2/14/25	Thu 4/10/25
66	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
67	Procurement and Equipment Delivery	240 days	Fri 5/9/25	Thu 4/9/26
68	Installation and utility coordination	45 days	Fri 4/10/26	Thu 6/11/26
69	Testing	5 days	Fri 6/12/26	Thu 6/18/26
70	**ESG-1 Install Potable Water Plant**	**450 days**	**Fri 2/14/25**	**Thu 11/5/26**
71	**Mobilization and Implementation**	**450 days**	**Fri 2/14/25**	**Thu 11/5/26**
72	Submittal review	30 days	Fri 2/14/25	Thu 3/27/25
73	Submission and Approval of all Permits	90 days	Fri 3/28/25	Thu 7/31/25
74	Procurement and Equipment Delivery	120 days	Fri 8/1/25	Thu 1/15/26
75	Installation	180 days	Fri 1/16/26	Thu 9/24/26
76	Testing	30 days	Fri 9/25/26	Thu 11/5/26
77	**ESG-2 WWTP Control System Upgrade**	**365 days**	**Fri 2/14/25**	**Thu 7/9/26**
78	**Mobilization and Implementation**	**365 days**	**Fri 2/14/25**	**Thu 7/9/26**
79	Submittal review	40 days	Fri 2/14/25	Thu 4/10/25
80	Submission and Approval of all Permits	20 days	Fri 4/11/25	Thu 5/8/25
81	Procurement and Equipment Delivery	240 days	Fri 5/9/25	Thu 4/9/26
82	Installation	60 days	Fri 4/10/26	Thu 7/2/26
83	Testing	5 days	Fri 7/3/26	Thu 7/9/26
84	**ESG-4 GENSET Energy Enhancement**	**30 days**	**Fri 2/14/25**	**Thu 3/27/25**
85	**Mobilization and Implementation**	**30 days**	**Fri 2/14/25**	**Thu 3/27/25**
86	Electrical work	30 days	Fri 2/14/25	Thu 3/27/25
87	**ESG-5 Kitchen Hood Control (Melink)**	**165 days**	**Fri 2/14/25**	**Thu 10/2/25**
88	**Mobilization and Implementation**	**165 days**	**Fri 2/14/25**	**Thu 10/2/25**
89	Submittal review	20 days	Fri 2/14/25	Thu 3/13/25
90	Submission and Approval of all Permits	20 days	Fri 3/14/25	Thu 4/10/25
91	Procurement and Equipment Delivery	60 days	Fri 4/11/25	Thu 7/3/25
92	Installation	60 days	Fri 7/4/25	Thu 9/25/25
93	Testing	5 days	Fri 9/26/25	Thu 10/2/25
94	**Close Out**	**50 days**	**Fri 11/6/26**	**Thu 1/14/27**
95	Final Inspection Of All Construction	10 days	Fri 11/6/26	Thu 11/19/26
96	As Built Drawings and Final O&M Manuals	20 days	Fri 11/20/26	Thu 12/17/26
97	Completion Of Final Inspection Punch List	20 days	Fri 12/18/26	Thu 1/14/27



Project: Mercer preliminary - clk
Date: Fri 8/25/23

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

Page 2

A3. Construction Coordination w/Utilities and Subs, Suppliers, DGS

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 biweekly progress updates. Over the course of construction, ESG bi-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 and security training, identify required permits, submittals and utility coordination. **ESG contacts all the utility companies ahead of time and makes them aware of our intended activities and seeks their guidance concerning any safety measures or concerns prior to commencing any work.**

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 with facility personnel will ensure that the impact on day-to-day operations is minimized. Our dedicated local project manager and on-site construction supervisors will control the pace and responsibilities of all subcontractors and suppliers.

The ESG Team will be responsible for interfacing with all parties (local utility providers, suppliers, consultants and subcontractors) associated with or impacted by this project. During the Investment Grade Audit (IGA) phase, ESG will work with PA DOC, PA DGS and the SCI Mercer staff to closely to review utility regulations, permits or approval requirements with selected ECMs and shall include any pre-construction procurement timelines within the Master Site Implementation Plan.

As mentioned previously during construction, ESG shall administer bimonthly progress meetings with the overall project team, (DGS, Facility Managers, ESG, Engineer of Record, utility representatives and subcontractors) to manage short- and long-term scheduling and coordination issues as they arise and review current ECM progress with realistic updated look ahead schedules. Action items and agreements arising from progress meetings will be documented within ESG's meeting minute format and a look-ahead schedule section included with each set of meeting minutes 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 assist the Funding Agency with completion of IRA forms and applications associated with IRA Tax Credits.**
- **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 construction management team with expertise to be on-site during all phases of implementation to oversee and ensure seamless project execution. 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 a preferred supplier, vendor, and contractor resources to assemble the most appropriate team. ESG's prequalification and acceptance criteria in our final selection protocol assure that our subcontractors and suppliers conform to our high standards of performance, safety, security, reliability and providing customer satisfaction.

2-5.4 Qualification Forms

(See specific suggested sheets/pages below. Note also that "Entity's Resource Availability" shall be as of the date of the Technical Submission)

A. *The Evaluation Committee will consider the degree to which the Quote provides experienced and qualified personnel capable of designing and implementing the scope of work on the project, including training Funding Agency staff once the work is complete.*

GESA Contractor (Suggested number of sheets/pages: 10 sheets, or if GESA Contractor is a Joint Venture, no more than 5 sheets per joint partner. Also, one single-sided 11x17 sheet for organization chart plus 1 sheet per person.)

1. *Provide clear and concise information that will demonstrate the following qualifications:*

   a. *Management Team Individual Qualifications (6-person limit)*
      (1) *Describe project responsibilities, time with firm, experience with GESA projects, educational or technical training, LEED accredited projects, and any other information relevant to the evaluation of the individual.*

   b. *Offeror's Financial Ability to Provide Guarantee*
      (1). *Offeror shall provide: most recent available independently audited financial statements for private corporations and/or Form 10-K on file with the Securities and Exchange Commission (SEC); Annual Shareholder's report for public companies, as applicable, to demonstrate their financial ability to provide guarantees of energy savings of at least $5,000,000 (no third party insurance will be permitted); and a history of at least five (5) other project guarantees and the dollar amount of those projects. Offeror should not include any ECM or cost information on the Project in this portion of the Technical Submission; if ECMs or costs are included, the Quote will be rejected, and there will be no opportunity to correct the Quote.*

   c. *Offeror's Resource Availability (Capacity)*
      (1) *As defined by the following equation, reported in US Dollars: (average of the last 3 years gross sales) minus (the average of next 3 years committed backlog). Committed backlog is defined as all committed contract balances for the next 3 years as of the date of the Technical Submission.*

      (2) *If the Offeror is a legally combined entity, the formula shall represent the pro-rata share of each member per the legal agreement.*
      *Example: If A and B are a Joint Venture, A is 60% and B is 40%, then the reported availability should be 0.6 * A's availability + 0.4 * B's availability.*

   d. *Offeror's Statement of Readiness and Commitment of Resources*
      (1) *Provide a written statement confirming the persons identified in this RFQ are available and will be committed to the Project for the time period(s) referenced in the above RFQ Project Schedule, and that the Resource Availability reported above will be committed to the Project, as referenced in the RFQ Project Schedule and Work Plan.*

   e. *Offeror's Notification of Default and Debarment.*
      (1) *Provide a listing including owner, project, date, and explanation of any contract default or debarment within the last 5 years.*

2-5.4.A.1 GESA Contractor Qualification Forms

Entity's experience with GESA projects

Energy Systems Group has implemented over 840 energy efficiency and facility infrastructure improvement projects ***totaling over $4.1 Billion*** for more than 530 Customers in 40 States and the U.S. Virgin Islands. In Pennsylvania we have extensive experience working on several large and complex prior GESA projects.

Our proposed team for the SCI Mercer GESA project has extensive experience with Corrections Projects and they are quite knowledgeable with the PA GESA process. But most importantly ESG stands behind our work and strives to exceed the expectations of all our customers. On our most recent GESA projects, we have provided open book pricing in a further effort to provide complete transparency to PA DOC and DGS. The PA GESA projects are more than projects for ESG, because many of our team members reside in the Commonwealth of Pennsylvania. As a result, we value our relationship with PA DGS and PA DOC and strive to do whatever it takes to make each GESA project a complete success. Our goal is to build a strong relationship with Pennsylvania state agencies built upon trust and consistent quality of workmanship. In Pennsylvania, our team completed the $20M SCI Dallas GESA, 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, safe, project in adherence with the security guidelines established by the Facility. ESG also was selected to implement the PA Department of Conservation and Natural Resources (DCNR) Western Region Small GESA project encompassing more than 24 DCNR locations throughout Western Pennsylvania, and both Agencies have confirmed that we have done a great job during the construction portion of the project. We also were selected for the SCI Muncy and SCI Fayette GESA projects and despite many challenges as a result of COVID during construction on SCI Muncy are pushing through to satisfy all needs of PA DOC and close out another successful project. SCI Fayette is well ahead of schedule and everything is running quite smoothly for such a large complex project.

a. Management Team Individual Qualifications

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 PA DOC GESA 2023-2.

Team Member	Years of Experience
Tony Prelec	27
Dan Khuu	29
Jerry Elmblad	40
Tom Twigg	40
Steve Richmond	32
John Topmiller	22

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.

Recent Similar Projects

- PA Fish & Boat Commission | $6 M
- SCI Correctional Facility - Fayette, PA | $39 M
- SCI Correctional Facility – Muncy, PA | $18.3 M
- DCNR West – PA GESA 4 – PA | $5.7 M
- City of Middletown, NY | $13 M
- SCI Correctional Facility – Dallas, PA | $20.4 M
- Slippery Rock School District, PA | $2.4 M
- Conewago School District, PA | $430 K
- Carlisle Borrow School District, PA | $754K
- Lampeter Strasburg School District, PA | $ 1.6m

Dan Khuu, CEM, CMVP, Senior Performance Engineer

Dan is an engineering professional with over 25 years of experience in the energy services industry. In his role, Dan helps clients identify efficiency measures that will improve their infrastructure and reduce energy and operation costs by implementing creative approaches and designs. He surveys facilities to determine their energy savings potential, and he creates estimations for equipment and installation costs. He provides guidance and support for all engineering functions, including evaluation of customer needs, development of engineered solutions, accurate construction cost estimates, energy savings estimates and guarantees, selection of consultants, contractors and vendors. He also oversees activities to ensure a smooth transition from the development phase into implementation. Throughout the project, Dan maintains daily communication with subcontractors regarding the installation. He also oversees the overall administrative and technical management of performance-based contracts during all phases of the project. Prior to joining 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.

Recent Similar Projects

- North Babylon School District, NY | $17.1 M
- PA Fish & Boat Commission | $6 M
- Cabell County Schools, WV | $10 M
- SCI Correctional Facility - Fayette, PA | $39 M
- Central Islip UFSD, NY | $8.6 M
- Florida UFSD, NY | $3.3 M
- SCI Correctional Facility – Muncy, PA | $18.3 M
- Hempstead UFSD, NY | $11.9 M
- Kings Park CSD, NY | $8.3 M
- City of Middletown, NY | $13 M

Certifications: Certified Energy Manager (CEM); Certified Measurement and Verification Professional (CMVP)
Affiliations: Association of Energy Engineers (AEE)

Jerry Elmblad, Corrections Specialist – Account Executive

Jerry has over 40 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.

Recent Similar Projects

- SCI Correctional Facility - Fayette, PA | $39 M
- SCI Correctional Facility - Muncy, PA | $18.3 M
- SCI Correctional Facility - Dallas, PA | $20.5 M
- Michigan Dept. of Corrections, MI | $8.6 M
- Ohio DRC – Lebanon & Warren Facilities | $13.6 M
- Wisconsin DOC – Oakhill Facility, WI | $2.2 M
- Wisconsin DOC – Jackson Regional, WI | $2.5 M
- Ohio DRC – Women's' Reformatory, OH | $5.1 M
- Wisconsin DOC – Kinross Facility, WI | $6.0 M
- Wisconsin DOC – Parnal Regional, WI | $2.5 M
- Wisconsin DOC – Straits Facility, WI | $250 K
- Wisconsin DOC – Newberry Facility, WI | $4 M

Tom Twigg, Senior Project Manager

Tom is a hands-on project manager with over 40 years of experience. He is skilled at job coordination and the day-to-day operation of projects and has overseen several multimillion-dollar projects over the course of his career. His deep experience in vendor management, contract negotiation and cost containment have enabled him to carry out these projects seamlessly and to the satisfaction of his clients. Tom provides operational assistance and counsel to the IGA work. He is responsible for procurement, construction management, training, post-construction support and warranty services. Before joining ESG, Tom owned his own company and was contracted in as a Mechanical Contractor. He holds both a CQM and a EM385 certification.

Recent Similar Projects

- SCI Correctional Facility - Fayette, PA | $39 M
- SCI Correctional Facility - Dallas, PA | $20.5 M
- Regional School Unit 57, ME | $12.9 M
- Regional School Unit 74, ME | $3 M
- Regional School Unit 87, ME | $6.8 M
- VISN, Menlo Park, CA | $9 M
- Naval Station Mayport CNIC, FL | $ 24.4 M
- MC Blount Island, FL | $ 10.8 M
- Camp Lejeune, NC | $ 78.5 M

John Topmiller, PE, CEM, LEED AP, Northeast Engineering Manager

John is a performance-driven engineering and operations leader with over 20 years of experience in the energy sector. In his role he provides guidance and support for all engineering functions, including evaluation of customer needs, development of engineered solutions, accurate construction cost estimates, energy savings estimates and guarantees, selection of consultants, contractors and vendors. He also oversees activities to ensure a smooth transition from the development phase into implementation. Prior to joining ESG, John was an engineering manager for Honeywell International. John holds a B.S. in Mechanical Engineering from the University of Dayton and a M.S. in Energy Management from the New York Institute of Technology.

Recent Similar Projects

- SCI Correctional Facility - Fayette, PA | $39 M
- SCI Correctional Facility - Muncy, PA | $18.3 M
- City of Newark, New Jersey | $7 M
- Georgia Department of Transportation | $5 M
- University of MD's Institute for Bioscience & Biotechnology Research | $6.4 M
- City of Boston | $11.4 M
- Maine School Administrative District 6 | $2.2 M
- Passaic County, NJ | $11 M

Memberships & Certifications: ASHRAE Standard Committee 90.1 - Energy Standard for Buildings Except Low-Rise Residential Buildings, ASHRAE Standard Committee 100 - Energy Efficiency in Existing Buildings, Energy and Sustainability Community of Interest for the Society of American Military Engineers, Professional Engineer Licensed in Pennsylvania, Delaware, New Jersey, and Maryland, Certified Energy Manager, LEED AP | WELL AP

Stephen Richmond, CEM, LEED GA, Northeast Operations 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. As Operations Manager for ESG's Northeast Region, Steve establishes staffing needs for the construction group; arranges for recruitment or assignment of construction personnel; ensures a smooth transition between engineering and project management; manages, directs, coordinates, and mentors the project management group to ensure that project goals are being met from conceptual design to developing scope; and ensures customer satisfaction and delivery of projects on schedule and within budget.. Steve holds a B.S. in Industrial Technology from Kean University with a specialization in Mechanical Contracting.

Recent Similar Projects

- SCI Correctional Facility - Fayette, PA | $39 M
- SCI Correctional Facility – Muncy, PA | $18.3 M
- DCNR West – PA GESA 4 – PA | $5.7 M
- City of Middletown, NY | $13 M
- SCI Correctional Facility – Dallas, PA | $20.4 M
- Bristol VA Public Schools, Phase 2 ESSER | $1.7 M
- Bristol VA Public Schools, Phase 2 PC | $2.0 M
- Morris Hills BOE, NJ | $2.1 M
- North Babylon School District, NY | $17.1 M

Certifications & Affiliations: Certified Energy Manager (CEM); Leadership in Energy and Environmental Design Green Associate (LEED GA); OSHA 30-hour General Industry Certification; Association of Energy Engineers (AEE)

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. ESG has bonding capacity of $300 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 $300 million will be favorably considered by Berkshire Hathaway Specialty Insurance Company, thereby enhancing our ability to guarantee savings, arrange financing, and obtain bonding – all of which are critical to successful energy performance contracting. This affords our customers the opportunity to partner with ESG at the lowest risk to their operations and reputation. Our projects are secured by payment and performance bonds. In our history, no bonds have been revoked. Listed below are five ESG projects and their project value and the annual guaranteed savings value requested by the RFQ.

FIVE ESG PROJECTS AND THEIR SAVINGS GUARANTEES

Project	Project Value	Guaranteed Annual Savings
SCI Dallas, Dallas PA	$19,957,577	$2.09M
Department of Conservation and Natural Resources, PA	$5,533,648	$303,000
Baltimore City Dept. of Transportation, MD	$14,988,426	$689,000
Howard County, MD	$8,200,000	$488,000
City of Middletown, NY	$12,700,000	$1.05M
Frederick Winchester Service Authority, VA	$46,500,000	$2.47M

c. Entity's Resource Availability (Capacity)

Energy Systems Group continues to grow and add additional personnel thus allowing for more capacity on a regular basis. Below is ESG's Capacity Calculation.

CAPACITY CALCULATION	
3 Year Average Sales	$277,400,000
3 Year Average Committed Backlog	-$84,110,559
Capacity	$193,289,441

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

Energy Systems Group, LLC 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.

energy systems group

August 29, 2023

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 Mercer, Project No. GESA 2023-2*

Dear Ms. Tomlinson and Selection Committee Members:

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 Mercer. 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#2023-2, 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#2023-2, 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,

Brian K Gower

Brian K. Gower
Vice President

2. DESIGN - CONSULTANTS

2. Design – Consultant, include SDB and VBE consultants, if any

(Suggested number of sheets/pages: 4 sheets, plus 1 sheet per person)

a. Entity's Experience on GESA projects.

b. Individual Qualifications (4-person limit)

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

d. Entity's Notification of Default or Debarment.

ESG intends to use our in-house Engineerring Center of Excellence as our Design Consultant as well as CJL Engineering for a portion of the design, as long as they are not selected by PA DGS as the Energy Consultant for SCI Mercer.

a. Firm's Experience with GESA projects

Design Consultant No. 1 – ESG's Engineering Center of Excellence (ECOE)
ESG's in-house Engineering Center of Excellence (ECOE) provides customers added value through maximizing the use of in-house technical expertise across all lines of our business for technically advanced energy infrastructure and resilient power solutions.

Engineering Center of Excellence (ECOE)

ECOE – Firm Profile
The ECOE is, by design, an efficient organization of experienced Subject Matter Experts (SMEs) with a long reach across multiple technologies and industries enabling the ECOE to design and deliver the most valuable solution with the lowest cost and risk to our customers. In addition, the ECOE provides benefits to our customers through introducing new and innovative technologies and solutions, equipment sourcing and procurement methods to reduce cost, and long-term life cycle cost advantages that differentiate us from others when it comes to achieving better business outcomes.

The ECOE provides customers with industry specific, experienced resources for energy infrastructure solutions in the areas of power generation, energy storage, resiliency, renewable energy, microgrids and advanced controls systems (with cybersecurity as needed). The ECOE members' technical expertise extends well beyond these specific areas and encompass the full range of energy engineering, design, procurement, installation and operations and maintenance. Specifically, ESG's SMEs of the ECOE are experts in:

- Carbon Reduction Strategies
- Resiliency & Sustainability
- Renewable energy – including, but not limited to – solar, wind, biomass, green hydrogen and renewable natural gas
- Energy Storage
- Tri-generation Systems
- Central Utility plants
- Combined Heat and Power (CHP)
- Microgrids
- Advanced controls – concept and implementation

The ECOE SMEs bring more than 100 years of combined engineering expertise in designing and developing innovative energy infrastructure solutions that help promote efficiency, sustainability and resiliency.

ECOE – Past Experience

Chicago West Energy Center

Date: Multiple Projects (2001-2016)
Owner: Jesse Brown Veterans Affairs Medical Center
Contact: Mike Nasiatka (ESG)
Amount: $15.3 Million
Description: ESG designed, and now operates, a leading-edge energy center to meet the VA's energy needs. ESG implemented comprehensive energy supply and distribution solutions including operations and maintenance, design and engineering, construction, and project management. The project scope included renovations to an existing building (circa 1919). As an added benefit, the VA receives a percentage of revenues from all energy sales to non-VA customers.

Eglin Air Force Base

Date: Multiple Projects (2006-2016)
Owner: U.S. Air Force
Contact: Seth Keller (ESG)
Amount: $83 Million
Description: Through multiple UESC contracts implemented between 2006 and 2016, ESG provided Eglin Air Force Base award winning projects that significantly reduced energy and operational costs. The most significant project scope items included an energy management system (EMS) upgrade allowing access to real-time data, and a chilled water plant replacement and VAV conversion among several other measures. This project has won multiple awards, including the 2019 DOE Federal Energy Management Program Energy and Water Management Award.

Metropolitan Nashville Airport Authority (MNAA) Geothermal Project

Date: 2015
Owner: MNAA
Contact: David Rehse (ESG)
Amount: $4.7 Million
Description: The MNAA wanted to reduce its electricity usage via a renewable energy source to support its sustainability plan. ESG developed an innovative geothermal solution using the former Hoover rock quarry located on the airport's property. This geothermal lake plate cooling system project, dubbed the largest in North America, reduced the airport's chilled water energy consumption from February to May 2016 by more than 50 percent. The project was designed to reduce the airport's electricity usage by 6,000 kilowatts of peak demand and result in annual savings of 1.3 million kilowatt hours. The MNAA is projected to save more than $430,000 per year in utility savings. In addition, the project allows for the use of quarry water for landscape irrigation resulting in savings of more than 30 million gallons of potable water per year. The MNAA received multiple awards for the project The MNAA was also awarded the 2015 Governor's Environmental Stewardship Award in the Sustainable Performance category by the Tennessee Department of Environment and Conservation, recognizing its programs and initiatives that improve and protect the environment and natural resources.

b. Individual Qualifications

Bill Taylor, PE, CEM
Project Responsibilities: Director, Engineering Center of Excellence
Time with Firm: 4+ years
Experienced with GESA projects: Yes
Education or Training: Master of Science in Mechanical Engineering, University of Washington | Bachelor of Science in Mechanical Engineering, University of Utah
Relevant Information: Bill leads ESG's ECOE and has over 35 years of engineering experience. Before joining ESG, Bill worked for Honeywell Energy Services Group as the Engineering Operations Leader. In this role, Bill provided complete energy solutions to a wide range of clients, including the U.S. federal government, municipalities, school systems, universities, healthcare clients, and industrial clients. The energy solutions provided included renewable power generation, smart grid and micro-grid development, and critical infrastructure updates.

Jesse Hoffman, PE, CEM
Project Responsibilities: Engineering Manager, Engineering Center of Excellence
Time with Firm: 8+ years
Experienced with GESA projects: Yes
Education or Training: Bachelor of Science in Electrical Engineering Technology, University of Maine
Relevant Information: Jesse has over 20 years of experience designing energy projects and is a subject matter expert in low and medium voltage electrical power and control system designs as particularly applied to power generation, renewable energy and critical power and power system resiliency projects for federal, municipal, and private clients. Jesse manages engineering resources for ESG's Engineering Center of Excellence. He has been the lead electrical designer/consultant for all three phases of ESG's reference project of the Ft. Detrick central utility plant, and he has led numerous energy master planning projects. For example, he is a leader on Houston's Resilient Now project, a city-wide energy resiliency and renewable energy transformation master plan. This project includes the evolution of many stakeholders' energy and resiliency requirements and gaps and provides a roadmap for correcting existing deficiencies and installing new systems to meet the resiliency and renewable energy needs.

Donald Schmidt, PhD, PE, LEED AP
Project Responsibilities: Development Engineer, Engineering Center of Excellence
Time with Firm: 2+ years
Experienced with GESA projects: Yes
Education or Training: Ph.D. in Mechanical Engineering, University of Texas at Austin | Master of Science in Nuclear Engineering, Kansas State University | Bachelor of Science in Nuclear Engineering, Kansas State University
Relevant Information: Donald (Don) Schmidt is an engineering leader with extensive experience in the performance contracting and design-build markets. At ESG, Donald leads interdisciplinary teams in the development of energy efficiency and infrastructure improvement projects. His collaborative management approach engages all key stakeholders as they work to develop innovative solutions to technically challenging opportunities in infrastructure modernization. Don has over 26 years of experience analyzing and developing energy retrofit and new construction projects and specializes in central plants. He has been a lead designer on combined cycle combustion turbine power plants ranging in size from 5 to 55 MW. These plants were interconnected with the grid and automated to provide resilient, reliable power on utility interruption. Before joining ESG, Donald was a Sr. Engineering Manager for Honeywell, Inc.

Erik Norgren, PE, CEM
Project Responsibilities: Senior Engineer, Engineering Center of Excellence
Time with Firm: 9+ years
Experienced with GESA projects: Yes
Education or Training: Bachelor of Science in Mechanical Engineering, University of Minnesota
Relevant Information: Erik is a project development engineer focused on increasing energy Resilience for DoD installations, commercial and industrial clients, and public institutions. Erik's skillsets and background knowledge of distributed generation and storage technologies, energy procurement strategies, and the engineering design process allow him to develop complex solutions that save energy and increase resilience. He is able to self-perform or facilitate key activities on a project from initial site audits and data gathering, deliver ring sales and engineering presentations to clients, reviewing detailed design documents and submittals, and providing construction and commissioning oversight. Erik has extensive experience performing energy modeling and creating custom models for a central plant or Microgrid applications with multiple distributed energy resources. For example, Erik created the economic model and wrote the measurement and verification plan for ESG's $49.9 million NASA Johnson Space Center project (this project entailed the installation of a 12 MW tri-generation facility with island capability). For Marine Corps Base Quantico, Erik was involved from initial concept through construction of two Microgrid applications where he prepared and delivered presentations and design materials to key stakeholders such as the energy manager to coordinate the design and gain support.

c. Statement of Readiness and Commitment of Resources

ESG confirms the person(s) identified in the RFQ response are available and will be committed to the project as needed.

d. Entity's Notification of Default or Debarment

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

a. Firm's Experience with GESA projects

Design Consultant Number 2 – CJL Engineering

ESG has chosen CJL Engineering for Design Assitance with the Reading Scranton GESA project because of their experience working on successful GESA projects. They also have a vast knowledge of multiple site facilities serviced by varied systems and understand critical aspects of ways to reduce energy consumption and enhance the performance of all systems.

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, their super-regional focus has enabled them 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: (under construction)
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 expect 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: approximately $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 expect to review, evaluate, support documentation and ensure that the ESCO and energy conservation measures are in compliance.
Status: In Progress

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 (ECMs) to develop an RFP for ESCO Contractors to bid. Provide energy modeling calculations & Return On Investment datato help the owner decide on themost 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

b.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 povided 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.

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.

3. CONSTRUCTION - KEY SUBCONTRACTORS

3. *Construction – Key Subcontractors, including SDB and VBE subcontractors, if any*

(Suggested number of sheets/pages: 8 sheets, plus 1 sheet per person)

a. *Offeror shall provide clear and concise information that will demonstrate the following qualifications for any Key Subcontractors that will be used on the Project:*

1) *Each Key Subcontractor's Experience on GESA Projects greater than $5 million.*

2) *Each Key Subcontractor's Superintendent's Qualifications (4-person limit)*

3) *Each Key Subcontractor's Statement of Readiness and Commitment of Resources per the Project Master Schedule.*

4) *Each Key Subcontractor's Workman's Compensation Experience Modification Rating for the calendar years 2019, 2020, and 2021.*

5) *Each Key Subcontractor's Notification of Default or Debarment.*

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 recent PA GESA projects 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. Their qualification forms follow.

Sub-Contractor: **Air Management Technologies Inc.-Mechanical HVAC (PA-SDB, VBE)**

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

Scranton and Reading State Office Buildings Date: August 2009 Owner: State of Pennsylvania Contact: Subcontractor to ESCO 717-856-7611 Amount: $102,900.00 Description: Air Balancing Status: Completed	**ESG Fish & Boat** Date: January 2020 Owner: State of Pennsylvania Amount: $1,330,815 Description: DGS Performance Contract Status: Ongoing
Lycoming County HVAC Upgrades Date: February 2021 Owner: State of Pennsylvania Amount: $2,995,000 Description: HVAC Upgrades Status: Completed	**ESG Dept Of Forestry** Date: October 2017 Owner: State of Pennsylvania Amount: $1,276,111 Description: DGS Performance Contract Status: Completed
ESG Muncy Performance Contract Date: November 2018 Owner: State of Pennsylvania Amount: $1,166,762 Description: Performance Contract Status: Completed	**Pennsylvania State Police Headquarters** Date: March 2017 Owner: State of Pennsylvania Contact: Subcontract to ESCO 717-856-7611 Amount: $2,084,297.00 Description: HVAC System and Control Upgrades Status: Completed

2. *Superintendent Qualifications*

Jeffrey S. Houtz
Project Responsibilities: Project Manager/Foreman, supervise field personnel; maintain schedules, inspection of work, insure safety on job sites
Time with Firm: 8 years
Experienced with GESA projects: no
Education or Training: Certified Journeyman Plumber/Pipefitter Local 520

3. *Statement of Readiness and Commitment of Resources*

Air Management Technologies Inc. stands ready and able to provide work force and expertise to complete the SCI Mercer Project. Air Management Technologies Inc. is a member of Local Union 520 Steam and Pipe Fitters out of Harrisburg as well as National Service Agreement that permits Air Management Technologies Inc. to pull additional manpower as needed to augment our permanent workforce from any Steam and Pipefitter Union Hall throughout the United States. Local Steam and Pipefitters Unions provide manpower from pipe fitters to control and mechanical equipment technicians.

4. Workmen's Compensation Experience Modification Rating

2022 – 1.208	2017 – 0.851
2021 – 0.990	2016 – 0.880
2020 – 1.238	2015 – 0.893
2019 – 1.548	2014 – 0.811
2018 – 0.792	

5. Entity's Notification of Default or Debarment

Air Management Technologies Inc. has never been disbarred or had any defaults levied against it or any of its entities.

Sub-Contractor: **B|E Retrofit, a division of Envocore**

ESG selected B|E Retrofit. because of their past successful record of accomplishment, their in depth knowledge of building envelope work and their extensive resources as a division of Envocore.

ENVO CORE UTILITY SERVICES • WATER BUILDING ENVELOPE • SOLAR ELECTRIFICATION • LIGHTING
CELEBRATING 30 YEARS OF EXCELLENCE

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

Newark Board of Education

Date:	2022
Owner:	Newark Board of Education
Contact:	John Czarnecki – Johnson Controls
Amount:	$2,514,442
Description:	Building envelope and pipe insulation improvements at more than 50 school buildings
Status:	Completed

Montclair School District

Date:	2021
Owner:	Montclair School District
Contact:	Tim Laverick - Honeywell
Amount:	$660,357
Description:	More than 80,000 SF of attic insulation upgrades and more than 150,000 LF air sealing
Status:	Completed

Putnam County

Date:	2020
Owner:	Putnam County, NY
Contact:	Craig Rebecca – Ameresco
Amount:	$278,682
Description:	Building envelope, mechanical insulation and window restoration upgrades
Status:	Completed

Town of East Haven

Date:	2019
Owner:	East Haven and East Haven Public Schools
Contact:	Bob Platt - Honeywell
Amount:	$476,659
Description:	Building envelope improvements at 21 buildings
Status:	Completed

2. Superintendent's Qualifications

Jon Becker
Project Responsibilities: Operations Manager
Time with Firm: 9 years
Experienced with GESA projects: yes
Education or Training: Bachelor of Science degree is Sustainable Design and Technology, Master of Applied Science in Environmental Management and Policy
Relevant information: Operations Manager with over 200 successful completed projects; schedule labor and material resources, supervise safety, on-time completion, project close-out.

Kemar Scott
Project Responsibilities: Construction Manager
Time with Firm: 11 years
Experienced with GESA projects: yes
Education or Training: Green Jobs Academy, extensive on-the-job training
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

Erik Camacho
Project Responsibilities: Construction Manager
Time with Firm: 2 years
Experienced with GESA projects: no
Education or Training: extensive on-the-job training
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

3. Statement of Readiness and Commitment of Resources

B|E Retrofit personnel identified are available; one Operations Manager and one Construction Manager will be committed to the project for the time period referenced in the RFP Project Schedule.

4. Workman's Compensation Experience Modification Rating - Envocore

2021 – 0.88
2020 – 0.89
2019 – 0.89

5. Entity's Notification of Default or Debarment

B|E Retrofit or Envocore has not been debarred and is not in default of any contract.

Sub-Contractor: Chesapeake Controls, Inc. (VA SWaM & PA-SDB)

ESG selected Chesapeake Controls, Inc. because of their past successful record of accomplishment and their in-depth knowledge of HVAC Building Automation Systems.

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 ESCO project

SCI Fayette

Date:	Current
Owner:	PA DGS
Contact:	Tom Twigg (ESG)
Amount:	$2.3M
Description:	Upgrade of existing BAS system
Status:	In Progress

Bristol Schools ESCO Project

Date:	2023
Owner:	Bristol County Public Schools
Contact:	Jeff Allred (ESG)
Amount:	$855K
Description:	Upgrade of existing BAS system
Status:	Completed

Juliette Gordon Low ESCO Project

Date:	2022
Owner:	U.S. General Services Administration
Contact:	Dana Vaine (Ameresco)
Amount:	$1M
Description:	Upgrade of existing BAS system and provide additional controls for optimization
Status:	Completed

City of Ironton ESCO Project

Date:	2022
Owner:	City of Ironton
Contact:	Kevin Gallagher (ABM)
Amount:	$232K
Description:	Upgrade of existing BAS system
Status:	Completed

2. Superintendent's Qualifications

Dave Simmers
Project Responsibilities: Project Manager
Time with Firm: 4 Years
Experienced with GESA projects: Yes, currently working on SCI Fayette; Project Manager for the completed City of Ironton project.
Education or Training: Butler County Vo Tech HVAC Program, Building Trades Journeyman, Welding & Service Techs Local 449, Niagara N4, AX & Advanced certified
Relevant information: 31 years' experience in industry

Jim Strother
Project Responsibilities: Foreman
Time with Firm: 1 Year
Experienced with GESA projects: Yes, currently working on SCI Fayette
Education or Training: West Virginia Journeyman, OSHA 30, Honeywell Care, XBS, Webs N4 & AX certified
Relevant information: 26 years' experience in industry

Hunter Smith
Project Responsibilities: Application Engineer
Time with Firm: 3 Years
Experienced with GESA projects: Yes, currently working on SCI Fayette; Worked on the completed Bristol Co. PS project
Education or Training: BS Computer Science University of Maryland Global Campus, Honeywell N4 & N4 Advance certified, Siemens Desigo certified
Relevant information: 3 years' experience in HVAC industry

3. Statement of Readiness and Commitment of Resources

Chesapeake Controls, Inc. 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

2020 - 2021: 0.77
2021 - 2022: 0.78
2022 - 2023: 0.78

5. Entity's Notification of Default or Debarment

Chesapeake Controls, Inc. has not been debarred and is not in default on any contract.

Energy Solutions for a Brighter Future
ECOENGINEERING

Sub-Contractor: Eco Engineering – Solar Engineering, Procurement, Construction

ESG selected Eco Engineering because of their past successful record of accomplishment and their in depth knowledge of sustainability services and turn-key solar installation.
ecooengineering.com

1. Experience on Ground Mount Solar 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 project

Locust Solar LLC
Date: 2021
Owner: DSD Renewables, NY
Amount: $13,000,000
Description: 6711 kW-DC Ground Mount SAT
Status: Completed

Taft Solar LLC
Date: 2021
Owner: DSD Renewables, NY
Amount: $9,000,000
Description: 4420 kW-DC Ground Mount SAT
Status: Completed

Whaling Solar LLC
Date: 2022
Owner: DSD Renewables, NY
Amount: $9,000,000
Description: 4489 kW DC Ground Mount SAT
Status: Completed

US Coast Guard TRACEN
Date: 2021
Owner: Ameresco, CA
Amount: $10,000,000
Description: 4996 kW DC Ground Mount SAT
Status: Completed

Buck Road Remsen LLC
Date: 2022
Owner: DSD Renewables, NY
Amount: $10,000,000
Description: 4790 kW-DC Ground Mount SAT
Status: Completed

Energy Solutions for a Brighter Future
ECOENGINEERING

2. Superintendent's Qualifications

Hari Krishnamurthy, PE
Project Responsibilities: Director, Sustainability Engineering
Time with Firm: 20 years
Education or Training: Master of Science Degree in Electrical Engineering
Relevant information: Engineer in charge encompassing complete responsibility for all professional engineering activities undertaken on behalf of customers. Design responsibilities for a multitude of solar projects including community scale projects, commercial rooftop, commercial ground-mount systems, and commercial carport systems at scale

Shawn Stutzman
Project Responsibilities: Director, Solar Construction
Time with Firm: 4 years
Education or Training: Licensed master electrician, North American Board of Certified Energy Practitioners (NABCEP) PV Installation Certification
Relevant information: Project management, site assessment, system optimization, system design and specification, installation oversight and commissioning

Nick Walley
Project Responsibilities: Field Operations Manager
Time with Firm: 10 years
Education or Training: 12 years in solar and electrical trade
Relevant information: Testing, commissioning, system integration, PPI witness testing per IA with interconnecting utility, CAISO telemetry and dispatch for AS and Capacity services, SCADA and system integration

3. Statement of Readiness and Commitment of Resources

All 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

2022 – 0.79
2021 – 0.80
2020 – 0.77

5. Entity's Notification of Default or Debarment

Eco Engineering has not been debarred and is not in default of any contract.

H2O Applied Technologies

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. Philadelphia Housing Authority Water Conservation, Lighting Retrofits and Weatherization

Date: 2021-22
Owner: Philadelphia Housing Authority
Contact:
Amount: $4.97 million
Description: Low flow plumbing fixtures, lighting retrofits, building weatherization
Status: Completed

2. DCNR Water Conservation, Lighting Retrofits, Water Line Replacement

Date: 2021
Owner: PA DCNR
Contact:
Amount: $1.1 million
Description: Low flow plumbing fixtures, lighting retrofits, water line replacement
Status: Completed

3. SCI Muncy Water Conservation and Steam System Upgrades

Date: 2020
Owner: SCI Muncy
Contact:
Amount: $1.1 million
Description: Low flow plumbing fixtures, penal fixture controls, steam traps
Status: Completed

4. 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: In progress

H2O Applied Technologies

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: 17 years
GESA Project Experience: Yes
Education or Training: Bachelor of Science Mechanical Engineering Worcester Polytechnic Institute
Relevant information: Mr. Clark has developed over 120 projects ($75 Million) of water and energy conservation measures.

James Allen Hurley
Project Responsibilities: Senior Project Manager
Time with Firm: 9 years
GESA Project Experience: Yes
Education or Training: Licensed Electrician
Relevant Information: Mr. Hurley has been the Project Manager for over 75 projects ($60 Million) of water and energy conservation measures.

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 2020, 2021, and 2022.

2020 – .89
2021 – .89
2022 – .86

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.

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

Intelligent Conservation Systems, Inc.

ECM #6 Water Conservation
ECM #7 Plumbing Controls

2-5.4.A.3.a(1) Subcontractor's Experience:

Intelligent Conservation Systems, Inc. (ICS) has completed the successful water conservation scopes at SCI Dallas and SCI Houtzdale. ICS has additionally completed over one hundred corrections projects throughout the US and Canada, including at least ten contracts within the state of Pennsylvania. This significant focus on correctional institutions has resulted in ICS becoming the most experienced water controls contractor in the entire US.

SCI Houtzdale, PA

Date:	2020
Owner:	Pennsylvania Department of Corrections
Contact:	Dave Clark - TEN
Amount:	$2.1m
Description:	Retrofit of inmate toilet valves, lavatory valves, and shower valves with I-CON electronic plumbing controls. Replacement of pressure reducing valves.
Status:	Completed as originally scheduled

SCI Dallas, PA

Date:	2016
Owner:	Pennsylvania Department of Corrections
Contact:	Scott Gracely - ESG
Amount:	$3.3m
Description:	Retrofit of inmate toilet valves, lavatory valves, and shower valves with I-CON electronic plumbing controls and I-CON officer computer control system. Replacement of staff toilets, urinals, faucets and showers with low consumption units. Currently saving $1,000,000 in water, sewer, and gas costs annually.
Status:	Completed as originally scheduled

Allegheny County Jail, PA

Date:	2011
Owner:	Allegheny County
Contact:	Scott Emerton – Noresco
Amount:	$3.1m
Description:	Retrofit of all existing mechanical flush valves, lavatory manifolds and shower controls, with I-CON electronic plumbing controls.
Status:	Completed as originally scheduled

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

Dauphin County Prison, PA

Date:	2020
Owner:	Dauphin County
Contact:	Anthony Albright - TEN
Amount:	$0.2m
Description:	Retrofit of existing shower valves with I-CON electronic shower plumbing controls with vandal resistant stainless steel shower covers; and replacement of mechanical metering lavatory valves.
Status:	Completed as originally scheduled

Indiana State Prison, IN

Date:	2015
Owner:	Indiana Department of Corrections
Contact:	Kevin Orme - Indiana DOC
Amount:	$3.1m
Description:	Retrofit of all existing mechanical flush valves, lavatory manifolds and shower controls, with I-CON electronic plumbing controls. Replacement of staff toilets, urinals, faucets, and showers with low consumption units.
Status:	Completed as originally scheduled

Dollar amounts of the projects previously listed do not include the total contract amount of the guaranteed energy savings ESCO projects.

2-5.4.A.3.a(2) Subcontractor's Superintendent's Qualifications:

Mike Campbell

Project Responsibilities:	Senior Project Development Engineer – Conducts audits, pre M&V, designs scope and generates savings reports, produces submittals, and oversees installation to ensure savings and scope targets are met. Mike has audited and designed savings projects for hundreds of correctional facilities.
Time with Firm:	11 years
Experienced with GESA projects:	Yes
Education and Experience:	Bachelor of Science in Mechanical Engineering (ABET Accredited) with Energy Concentration, Certified Water Efficiency Professional (CWEP); OSHA 30 Certification, 9 years commercial maintenance experience

Chris Peterson

Project Responsibilities:	Vice President of Construction – Responsible for total job operations and supervises all in field project managers. Chris has managed over 100 correctional retrofit projects for all types of government and security levels.
Time with Firm:	11 years
Experienced with GESA projects:	Yes
Education and Experience:	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.

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

Charles Price

Project Responsibilities:	Construction Developer and Quality Control Manager – Finalizes designs from the contracted scope and trains field staff for proper installation of the water savings control system. Conducts onsite quality control inspections to ensure savings settings and designs are implemented. Reviews post M&V data for compliance.
Time with Firm:	6 years
Experienced with GESA projects:	Yes
Education and Experience:	United States Army Communications and Controls Specialist, Over 15 years of service in telecommunications and wireless signal equipment, 6 years as lead designer of water controls mapping and node assignment.

2-5.4.A.3.a(3) 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.

2-5.4.A.3.a(4) Subcontractor's Workman's Compensation Experience Modification Rating:
McGriff Insurance Services, Inc.
.83 04/19/2019-04/19/2020
.86 04/19/2020-04/19/2021
.88 04/19/2021-04/19/2022
.92 04/19/2022-04/19/2023
.94 04/19/2023-04/19/2024

2-5.4.A.3.a(5) Subcontractor's Notification of Default or Debarment:
None. 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

Sub-Contractor: **Lighting Services – LED Lighting & Water Conservation (PA-SDB)**

ESG selected Lighting Services, Inc. because of their past successful record of accomplishment and their in depth knowledge of lighting and new lighting technology

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

GESA 2017-2 DOC SCI Muncy

Date:	2020
Owner:	PA DOC
Contact:	Jeff Allred – ESG
Amount:	$672,607
Description:	More than 5,200 interior and exterior light fixtures
Status:	Completed

GESA 2019-3 PA Fish & Boat

Date:	2022
Owner:	PA Fish and Boat Commission
Contact:	Scott Gracely – ESG
Amount:	$388,323
Description:	More than 4,300 interior and exterior light fixtures
Status:	Completed

GESA 2020-1 SCI Fayette

Date:	2022
Owner:	PA DOC
Contact:	Tom Twigg – ESG
Amount:	$3,008,980
Description:	More than 7,100 interior and exterior light fixtures & a full water conservation and controls scope
Status:	Lighting complete – Water under construction

GESA 2019-2 (Rebid) DGS Capitol Complex

Date:	2022
Owner:	PA DGS
Contact:	Mark Hyser – McClure Company
Description:	More than 40,000 interior and exterior light fixtures
Status:	Completed

2. Superintendent's Qualifications

Mike Rohm
Project Responsibilities: Supervisor
Time with Firm: 22 years
Experienced with GESA projects: Yes
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.

Thomas Petrey
Project Responsibilities: Supervisor
Time with Firm: 15 years
Experienced with GESA projects: Yes
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: 16 years
Experienced with GESA projects: Yes
Education or Training: AEE CLEP certification, OSHA 30-hour
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight if installation work, project reporting and project closeout.

3. Statement of Readiness and Commitment of Resources

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. Workman's Compensation Experience Modification Rating

2022 – 0.92
2021 – 0.91
2020 – 0.93

5. Entity's Notification of Default or Debarment

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

Sub-Contractor: **Melink Corporation-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

Chillicothe Correctional Institute
Date: 2023
Contact: Energy Systems Group
Amount: $125,353
Description: Total HP = 25 HP & (5) Fans
Status: In Progress

Maryland Juvenile Corrections Centers (4 locations)
Date: 2017
Contact: Ecosave
Amount: $172,995
Description: Total HP = 43 HP & (16) Fans
Status: Completed

2. Key Personnel and Superintendent Qualifications

Josh Graff
Project Responsibilities: Business Development Manager
Time with Firm: <1 year
Experienced with GESA projects: Yes
Education or Training: University of Louisville
Relevant information: Sales Engineer focused on a review of calculated Energy Savings, Cost Estimation, and Closeout

Greg Reynolds
Project Responsibilities: Project Manager
Time with Firm: 5 years
Experienced with GESA projects: No
Education or Training: Ohio University
Relevant information: Resource and logistic coordination

Jeremy Holcomb
Project Responsibilities: Applications Engineer
Time with Firm: >10 years
Experienced with GESA projects: Yes
Education or Training: Applications Engineer

Relevant Information: System design and technical support

Name: Josh Gerlocj
Project Responsibilities: Director of Sales
Time with Firm: 5 years
Experienced with GESA projects: Yes
Education or Training: Worked exclusively with ESCOs for >3 years.
Relevant information: Supervise Intelli-Hood BU, oversee Project Coordination, application and feasibility requirements, delivery.

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

2014 - 0.82
2015 - 1.09
2016 – 0.82
2017 – 0.98

5. Entity's Notification of Default or Debarment

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

Sub-Contractor: **Powersmiths International Corp- Low Voltage Transformer Manufacturer**

ESG selected Powersmiths International Corp because of their past successful record of accomplishment and there in depth knowledge of Low & Medium voltage electrical distribution systems

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

GESA 2019-3 PA Fish & Boat

Date:	2022
Owner:	PA Fish and Boat Commission
Contact:	Scott Gracely – ESG
Amount:	$270K
Description:	More than 50 Low Voltage Transformers manufactured and replaced
Status:	Completed

GESA 2020-1 SCI Fayette

Date:	2022
Owner:	PA DOC
Contact:	Tom Twigg – ESG
Amount:	$240K
Description:	More than 50 Low Voltage Transformers manufactured and replaced
Status:	In construction

GESA 2019-2 (Rebid) DGS Capitol Complex

Date:	2022
Owner:	PA DGS
Contact:	Mark Hyser – McClure Company
Description:	More than 100 Low voltage transformers audited, and baseline meted for losses
Status:	removed from scope on this phase

2. Superintendent's Qualifications

Seth Bosch
Project Responsibilities: Business Development Manager
Time with Firm: 10 years
Experienced with GESA projects: Yes
Education or Training: Master Electrician, Arc Flash, OSHA, NFPA 70E
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight of installation work, project reporting and project close-out.

Rick Howard
Project Responsibilities: Engineering Manager
Time with Firm: 15 years
Experienced with GESA projects: Yes
Education or Training: P.E. CMVP, LEED AP
Relevant information: Supervise field personnel, handle material and equipment logistics, oversight of all engineering development within the Transformer ECM project reporting and project closeout.

Glenn Shaw
Project Responsibilities: Project Manager
Time with Firm: 4 years
Experienced with GESA projects: Yes
Education or Training: Journeyman Electrician, Arc Flash cert, OSHA, NFPA 70E
Relevant information: Supervise field personnel, handle material and equipment logistics, project reporting and project closeout.

3. Statement of Readiness and Commitment of Resources

All Powersmiths International Corp 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

2019	.16
2020	.15
2021	.12
2022	.13

5. Entity's Notification of Default or Debarment

Powersmiths International Corp has not been debarred and is not in default of any contract.

Sub-Contractor: Refrigeration Technologies, LLC – Commercial Refrigeration Optimization

ESG selected Refrigeration Technologies, LLC because of their past successful record of accomplishment and their in-depth knowledge of Commercial Refrigeration ECM's.

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

GESA 2017-2 DOC SCI Muncy

Date: 2020
Owner: PA DGS
Contact: Jeff Allred – ESG
Amount: $21,580.00
Description: Installation of (3) WIC and (2) WIF Controls, (14) 2-sp EC Motors, Cloud Integration.
Status: Completed

GESA 2020-1 SCI Fayette

Date: 2023
Owner: PA DGS
Contact: Tom Twigg – ESG
Amount: $49,540.00
Description: Installation of (8) WIC and (4) WIF Controls, (59) 2-sp EC Motors, Cloud Integration.
Status: In Progress

Pentagon (W912DY-19-F-1202)

Date: 2022 - 2023
Owner: UESC WHS
Contact: Mike Fennesy – ESG
Amount: $175,757.50
Description: Installation of (51) Fan Motor controls, (53) Anti-Sweat Controls, (119) 2-sp EC Motors
Status: In Progress

Jefferson County, Texas

Date: 2019
Owner: Jefferson County TX PC
Contact: Steve Robert Draeger - JCI
Amount: $42,398.00
Description: Installation of (13) WIC and (4) WIF Controls, (41) 2-sp EC Motors, Cloud Integration.
Status: Completed

2. *Superintendent's Qualifications*

Steven Wezel

Project Responsibilities:	Operations Manager, Technical Engineer
Time with Firm:	12 years
Experience with GESA Projects:	Yes
Education or Training:	Bachelor of Science in Mechanical Engineering Technology, Captain – US Army Combat Engineers (Light) OSHA 10-hour
Relevant Information:	Instrumental in the development of the ArtikControl package to include the walk-in cooler/freezer controls, system connectivity, and the cloud-based U/I. Installed this technology in over 200 locations.

Gary Wezel

Project Responsibilities:	Technical Engineer
Time with Firm:	12 Years
Experience with GESA Projects:	Yes
Education or Training:	Specialized Associates in Electronics Royersford Borough (PA) Fire Chief for over 30 years OSHA 30-hour, CPR/First Aid, NFPA 70e
Relevant Information:	Instrumental in the development of the ArtikControl package to include the walk-in cooler/freezer controls, system connectivity, and the cloud-based U/I. Installed this technology in over 200 locations.

3. *Statement of Readiness and Commitment of Resources*

All Refrigeration Technologies 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*

2022 – 0.87
2021 – 0.87
2020 – 0.87

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

Refrigeration Technologies, LLC has not been debarred and is not in default of any contract.

Renick Brothers Mechanical Contractors

1. Experience on GESA and Correctional Facility Projects

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 and correctional facility projects.

Westmoreland Courthouse	
Date	2021
Location	Greensburg, PA
Owner	Westmoreland County Courthouse
Contact	Ron Krhovsky – Constellation Ronald.Krhovsky@constellation.com
Amount	$1,426,000
Description	HVAC upgrades to functioning courthouse including boilers, pumps, chiller, AHU's and piping.
Status	Complete

Slippery Rock University Performance	
Date	2017
Location	Slippery Rock, PA
Owner	Slippery Rock University
Contact	Chris Hess – Honeywell, chris.hess@honeywell.com
Amount	$2,403,159
Description	Campus wide chiller upgrade including 9 buildings, 13 chillers, 2 pool units, all required piping and underground steam.
Status	Complete

Neshannock Twp School District	
Date	2016
Location	New Castle, PA
Owner	Slippery Rock University
Contact	Dennis Kronz – The Efficiency Network, dennis.kronz@tensaves.com
Amount	$447,430
Description	Multi location HVAC upgrade including cooling tower, heat exchanger, boilers, pumps and piping.
Status	Complete

SCI Albion Chilled Water Plant	
Date	2023
Location	Albion, PA
Owner	PA Department of Corrections (SCI Albion)
Contact	Cliff Hamby – Department of General Services, clhamby@pa.gov
Amount	$3,175,000
Description	DGS project to renovate the chilled water plant in a functioning correctional facility, including boilers, chillers, pumps and piping.
Status	Ongoing

SCI Cambridge Springs Air Conditioning Program	
Date	2023
Location	Cambridge Springs, PA
Owner	PA Department of Corrections (Cambridge Springs)
Contact	Kurt Schuhlen – Department of General Services, kschuhlen@pa.gov
Amount	$1,500,000
Description	DGS renovation of a functioning correctional facility including fan coil units, condensing units, piping and ductwork.
Status	Ongoing

SCI Mercer 230 Bed Housing Unit	
Date	2008
Location	Mercer, PA
Owner	PA Department of Corrections (Mercer)
Contact	N/A
Amount	$735,000
Description	DGS project for construction of 230 bed housing unit. Including rooftop unit, fans and ductwork.
Status	Complete.

Renick Brothers Mechanical Contractors

2. Subcontractor's Superintendent's Qualifications

See resumes attached (after pages 3-5).

3. Statement of Readiness and Commitment of Resources

Renick Brothers has the necessary staff and resources to complete the project in the time period referenced in the RFP.

4. Subcontractor's Workman's Compensation Experience

2023: 0.763
2022: 0.857
2021: 0.844

5. Notification of Default or Debarment

Renick Brothers has not been debarred and is not in default of any contract.

Brandon Jaskot

513 West Liberty Road
Slippery Rock, PA 16057
BJaskot@RenickBrothers.com

Work Experience:

Renick Brothers Mechanical Contractor Inc. Slippery Rock, PA

- 2016 – Present: Project Manager
  - Manager / Oversee the completion of awarded projects – staying within the contract terms
  - Supervise / Mentor numerous Project Engineers and Junior Project Managers
- 2015 – 2016: Junior Project Manager
- 2014 – 2015: Estimating
- 2013 – 2014: Intern / Laborer / Warehouse

Projects Supervised:

as Project Manager:

Client	Project	Contract Amount
Mascaro	Forbes Core / Shell and 2nd Floor FitOut, Pittsburgh PA	$1.9 Million
Rycon	UPMC Chartwell – Infrastructure Improvements, Oakdale PA	$3.7 Million
MBM Contracting	Butler Health System Clarion Medical Office Building, Clarion PA	$1.6 Million
PJ Dick	171st Air Refueling Wing Hangers B301 & B302, Coraopolis PA	$4.7 Million
PJ Dick	Bakery Square – Bakery Office 3.0, Pittsburgh PA	$7 Million
PJ Dick	RIDC Mill 19C, Pittsburgh PA	$2.5 Million
Petrus Engineering	Liberty Mutual – Call Center, New Castle PA	$1.35 Million
Turner Construction	UPMC Hamot – Patient Care Tower, Erie PA	$13 Million

as Junior Project Manager:

Client	Project	Contract Amount
Holder Construction	Iron Mountain – Phase 2, Boyers PA	$6 Million

Education / Licenses / Certifications:

2019 – MCAA Institute for Project Managers

2017 – SMACNA Project Managers Institute

2014 – Grove City College
- BS Business Management

References:

Nathan Mallory, Project Manager
PJ Dick
412-228-9263

Brian Pitchford, Vice President
Pitchford Diversified
724-841-6600

Brian Toth
600 East Main St Ext
Grove City, PA 16127

EDUCATION:

Five year apprentice program (Local 47), Monaca, PA

EXPERIENCE:

Renick Brothers Mechanical Contractors – Slippery Rock, PA, 2005-Present
Duties: Supervised numerous jobs. Projects involved new construction and remodeling.

CERTIFICATIONS:

Local 449 Foreman/Journeyman
10 year OSHA card
ICRA certified
Forklift and Lull certified
Renick Brothers Competent Safety Person

PROJECTS SUPERVISED:

Clarion University Tippin Gym	$4,446,000
Fairview High School Boiler	$990,000
Fairview High School Chiller	$331,700
SRU Weisenfluh Dining Hall	$173,617
Butler VA Hospital Bldg. 2	$1,029, 508
Clarion University New Housing	$6,068,133
Ambridge Jr. High New HVAC	$2,951,650
UPMC McKeesport Chiller	$1,016,000
East Forest Elementary Retrofit	$422,000

HOSPITAL EXPERIENCE:

UPMC Jameson	New Castle PA
UPMC Horizon	Farrell, PA
UPMC Greenville	Greenville, PA
UPMC Northwest	Seneca, PA
UPMC Passavant	North Hills Pgh, PA
Heritage Valley Health System	Beaver, PA
Butler Health System	Butler, PA
VA Medical Center	Butler, PA
VA Health Care Center	Butler, PA

Tom Sankey
1979 Peacock Lane
Sharpsville, PA 16150

Sheet Metal Foreman

EDUCATION:

Five year apprentice program through SMWIU Local 12

EXPERIENCE:

Renick Brothers Mechanical Contractors – Slippery Rock, PA
Supervised and installed numerous Sheet Metal Projects
22 years Sheet Metal Experience, 20 Years with Renick Brothers

PROJECTS SUPERVISED:

UPMC Lemieux Sports Center
- $6, 078836

Cardinal Wuerl North Catholic HS
- $3,571,925

Wilmington High School
- $4,755,266

Clarion University Dining Hall
- $1,897,422

Penn State University Shenango Campus
- $2,070,824

Training and Certifications:

Aerial lifts and scaffolding
Lull and forklift
OSHA 10
First Aid and CP

APPENDIX

Energy Systems Group
Audited Financial Statements

(included w/ Electronic Copy only)

ESG considers this information Confidential

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

Consolidated Financial Statements

As of and for the Years Ended December 31, 2022 and 2021 and Independent Auditor's Report

CONTENTS

Deloitte.

INDEPENDENT AUDITOR'S REPORT

To the Member of
Energy Systems Group, LLC
Newburgh, Indiana

Opinion

We have audited the consolidated financial statements of Energy Systems Group, LLC and subsidiaries (the "Company"), which comprise the consolidated balance sheets as of December 31, 2022 and 2021, and the related consolidated statements of operations, member's equity, and cash flows for each of the two years in the period ended December 31, 2022, and the related notes to the consolidated financial statements (collectively referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the Company as of December 31, 2022 and 2021, 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.

Basis for Opinion

We conducted our audits in accordance with auditing standards generally accepted in the United States of America (GAAS). Our responsibilities under those standards are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are required to be independent of the Company and to meet our other ethical responsibilities, in accordance with the relevant ethical requirements relating to our audits. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Responsibilities of Management for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with accounting principles generally accepted in the United States of America, and for 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.

In preparing the financial statements, management is required to evaluate whether there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for one year after the date that the financial statements are issued.

Auditor's Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance but is not absolute assurance and therefore is not a guarantee that an audit conducted in accordance with GAAS will always detect a material misstatement when it exists. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control. Misstatements are considered material

if there is a substantial likelihood that, individually or in the aggregate, they would influence the judgment made by a reasonable user based on the financial statements.

In performing an audit in accordance with GAAS, we:

- Exercise professional judgment and maintain professional skepticism throughout the audit.
- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, and design and perform audit procedures responsive to those risks. Such procedures include examining, on a test basis, evidence regarding the amounts and disclosures in the financial statements.
- Obtain an understanding of internal control relevant to the audit 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 Company's internal control. Accordingly, no such opinion is expressed.
- Evaluate the appropriateness of accounting policies used and the reasonableness of significant accounting estimates made by management, as well as evaluate the overall presentation of the financial statements.
- Conclude whether, in our judgment, there are conditions or events, considered in the aggregate, that raise substantial doubt about the Company's ability to continue as a going concern for a reasonable period of time.

We are required to communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit, significant audit findings, and certain internal control-related matters that we identified during the audit.

Deloitte & Touche LLP

Houston, Texas
March 10, 2023

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS
As of December 31, 2022 and 2021

(In thousands)	2022	2021
ASSETS		
Current Assets		
Cash and cash equivalents	$ 1,619	$ 707
Notes receivable from affiliate	65,448	28,530
Accounts receivable, less allowance for doubtful accounts $35 and $0	32,038	20,722
Contract assets	16,852	25,087
Precontract costs	4,710	6,895
Prepaid contract costs	8,600	9,249
Due from affiliate	7,988	4,234
Other current assets	17,861	6,823
Total current assets	155,116	102,247
Other Assets		
Goodwill	29,740	29,740
Intangible assets, net of accumulated amortization of $7,027 and $6,020	6,114	7,121
Other long term deposits	665	462
Total other assets	36,519	37,323
Property and equipment, net	4,294	7,713
Operating lease right-of-use asset	4,837	5,762
Total Assets	$ 200,766	$ 153,045

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED BALANCE SHEETS (CONTINUED)
As of December 31, 2022 and 2021

(In thousands)	2022	2021
LIABILITIES AND MEMBER'S EQUITY		
Current Liabilities		
Accounts payable, including retainage of $10,542 and $9,117	$ 40,489	$ 30,721
Contract liabilities	43,257	12,280
Accrued liabilities	11,973	13,873
Current operating lease liability	1,430	1,364
Total current liabilities	97,149	58,238
Long-term accrued liability	696	-
Long-term operating lease liability	3,407	4,398
Total liabilities	101,252	62,636
Member's equity	99,514	90,409
Total liabilities and member's equity	$ 200,766	$ 153,045

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF OPERATIONS
For the Years Ended December 31, 2022 and 2021

(In thousands)	2022	2021
Revenues		
Construction revenues	$ 215,568	$ 204,682
Operations and maintenance and other revenues	44,566	41,620
Total revenues	260,134	246,302
Cost of revenues	200,708	190,780
Gross profit	59,426	55,522
Operating expenses	52,260	52,480
Operating income	7,166	3,042
Other income, net		
Interest, net	1,020	120
Other, net	919	11
Total other income, net	1,939	131
Net income	$ 9,105	$ 3,173

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF MEMBER'S EQUITY
As of December 31, 2022 and 2021

(In thousands)	2022	2021
Member's equity at beginning of year	$ 90,409	$ 87,236
Net income	9,105	3,173
Member's equity at end of year	$ 99,514	$ 90,409

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS
For the Years Ended December 31, 2022 and 2021

(In thousands)	2022	2021
Cash Flows Provided from Operating Activities		
Net income	$ 9,105	$ 3,173
Adjustments to reconcile net income to net cash provided by operating activities		
Depreciation	1,260	1,763
Amortization	1,007	1,007
(Gain) on disposal of property and equipment	(919)	(11)
Changes in assets and liabilities:		
Decrease (increase)		
Accounts receivable	(11,316)	1,120
Contract assets	8,235	17,293
Precontract costs	2,185	167
Prepaid contract costs	649	(4,664)
Due from affiliate	(3,754)	(1,531)
Other assets	(9,374)	(2,565)
Long-term retainage receivable	0	803
Increase (decrease)		
Accounts payable	9,768	425
Contract liabilities	30,977	(7,823)
Accrued liabilities	(1,900)	(4,679)
Accrued liabilities - long term	696	0
Net cash provided by operating activities	36,619	4,478

See notes to consolidated financial statements.

ENERGY SYSTEMS GROUP, LLC AND SUBSIDIARIES

CONSOLIDATED STATEMENTS OF CASH FLOWS (CONTINUED)
For the Years Ended December 31, 2022 and 2021

Cash Flows Used in Investing Activities		
Proceeds from sales of property and equipment	$ 2,250	$ 11
Purchases of property and equipment	(1,039)	(2,680)
Net Increase in Notes Receivable from Affiliate	(36,918)	(1,102)
Net cash used in investing activities	(35,707)	(3,771)
Net increase in cash and cash equivalents	912	707
Cash and cash equivalents at beginning of year	707	0
Cash and cash equivalents at end of year	$ 1,619	$ 707
Supplemental Schedules of Noncash Investing Activities		
Purchases of property included in accounts payable	$ -	$ 9
Right-of-use assets obtained in exchange for operating lease liabilities	$ 668	$ 1,579

See notes to consolidated financial statements.

Note 1 – Nature of Business and Significant Accounting Policies

Nature of Business

Energy Systems Group, LLC and Subsidiaries (collectively, "the 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.

The Company is a wholly owned subsidiary of Vectren Energy Systems Corporation (VESCO). VESCO is indirectly owned by Vectren LLC ("Vectren", "the Parent"). Vectren LLC is a wholly owned subsidiary of CenterPoint Energy, Inc. (collectively with its subsidiaries, CenterPoint Energy). VESCO is the sole member of the Company.

Principles of Consolidation

The consolidated financial statements include the accounts of Energy Systems Group, LLC and its subsidiaries. The accounting records conform to the accounting principles generally accepted in the United States of America (GAAP). All intercompany accounts and transactions have been eliminated in consolidation.

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. Recorded estimates are revised when better information becomes available or when actual amounts can be determined. Accordingly, actual results could differ from those estimates.

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. See Note 9 for a discussion of income taxes.

Global or Regional Health Pandemics, Epidemics or Similar Public Health Threats

Current and future health pandemics, epidemics and similar public health threats, such as COVID-19 and its variants, and the measures implemented to contain their spread, such as travel bans and restrictions, quarantines and vaccination mandates, continue to and may in the future have widespread impacts on the global economy, our employees, customers, and third-party business partners. The severity, magnitude and duration of a current or future health threat is uncertain, rapidly changing and hard to predict.

Any future health threat, including the emergence of a new variant of COVID-19, could, in the future, materially impact our business in numerous ways. Impacts could include the delay in timeliness of our service to customers because of shutdowns and/or illness and travel restrictions. Our customers could experience negative financial impacts that may limit their ability to contract for our services or pay for them. There could be cybersecurity impacts related to potential cyber attacks during a health threat. Increased rates of inflation, delays in our supply chain and accelerated employee turnover could also impact our ability to complete projects in a timely and cost-effective manner.

While the Company continues to assess the COVID-19 and all health related situations, they cannot estimate with any degree of certainty the full impact of health pandemics, epidemics or similar public health threats on their liquidity, financial condition, and future results of operations at this time.

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 statement 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. Cash and cash equivalents are stated at cost plus accrued interest to approximate fair value.

Revenue Recognition

The Company accounts for revenue in accordance with requirements of Accounting Standards Update ("ASU") 2014-09, Revenue from Contracts with Customers, which is also referred to as Accounting Standards Codification ("ASC") Topic 606 ("606").

Under 606, revenue is recognized when control of promised goods and services is transferred to customers, and the amount of revenue recognized reflects the consideration to which an entity expects to be entitled in exchange for the goods and services transferred. The Company primarily recognized revenue over time utilizing the cost-to-cost measure of progress for fixed price, time and materials and other service contracts, consistent with the Company's previous revenue recognition practices.

ASC Topic 606 provides a five-step model for recognizing revenue from contracts with customers as follows:

1. Identify the contract with a customer
2. Identify the performance obligations in the contract
3. Determine the transaction price

4. Allocate the transaction price to the performance obligations in the contract
5. Recognize revenue when or as performance obligations are satisfied

Contract
A majority of the Company's revenues are derived from fixed price construction contracts and some customer contracts also include operation and maintenance (O&M) services. The consolidated statement of operations disaggregates revenues by two major types of performance obligations: construction revenues and performance period services (operations and maintenance and other revenues). The Company's revenues are subject to economic conditions and may fluctuate based on changes in the industry and market.

Under ASC 606, construction revenues are measured on the amount of consideration specified in a contract with a customer and is then recognized over time as performance obligations are satisfied, which generally occurs with the transfer of control of the goods or services to the customer.

Identification of the Performance Obligation
The Company evaluates whether two or more contracts should be combined and accounted for as a single performance obligation and whether a combined or single contract should be accounted for as more than one performance obligation. This evaluation requires judgement and the decision to combine contracts or separate a combined or single contract into multiple performance obligations could change the amount of revenue and profit recorded in a given period. 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.

Transaction Price
The transaction price is the amount of consideration to which the Company expects to be entitled in exchange for transferring goods and services to the customer. The consideration promised in a contract with a customer may include both fixed amounts and variable amounts, such as claims and unpriced change orders, incentive fees, and liquidated damages. 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. The amount of revenue to be recognized for variable consideration is estimated using the expected value method based on the sum of a probability-weighted amount or the most likely amount method, whichever is expected to better predict the amount. The estimates of variable consideration are based primarily on the assessment of legal enforceability, anticipated performance, and any other information (historical, current, or forecasted) that is reasonably available.

Allocate the transaction price to the performance obligations in the contract and Revenue Recognition
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 costs incurred to date compared to total estimated contract costs, as a percentage, to measure the progress of completion of

performance obligations. This percentage is then applied to the transaction price to determine the amount of revenue to recognize. 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. If an anticipated loss on a contract becomes evident, the entire amount of the estimated loss is accrued at that time.

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.

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 does not have significant financing components in its customer contracts.

The Company's contract assets represent revenue recognized in excess of amounts billed. The Company's contract liabilities represent billings in excess of revenue recognized. See Note 3 for contract balances.

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. The Company does not consider their performance guarantees or product warranties to be separate performance obligations. Historically, performance guarantees and warranty claims have not resulted in material costs incurred.

Leases

Under 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 quarterly 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. The Company has elected the practical expedient to not separate lease and non-lease components for certain classes of leases, such as office buildings. See Note 12 for additional discussion on the Company's leases.

Fair Value of Financial Instruments

Cash, cash equivalents, notes receivable from affiliate, accounts receivable, accounts payable, and accrued expenses – Carrying amount approximates fair value because of the short maturity of those instruments.

Pre-contract and Prepaid Contract Costs

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 at December 31, 2022 and 2021 were $4,710 and $6,895, respectively.

Certain contract costs, such as subcontractor costs for uninstalled materials, 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 prepaid contract costs at December 31, 2022 and 2021 were $8,600 and $9,249, respectively.

Accounts Receivable and Allowance for Credit Losses

Accounts receivable are recorded at the invoiced amount and do not bear interest. Most billings are determined based on contractual terms. Account balances are charged off when management determines it is probable the receivable will not be recovered. The Company establishes an allowance for possible losses on 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 reserved or written off, net of recoveries. The reserve for doubtful accounts at December 31, 2022 and 2021 were $35 and $0, respectively.

Contract Assets

Contract assets include provisions of the contracts. Most billings are determined based on contractual terms. As is common practice in the industry, the Company classifies all contract assets, including retainage, as current assets. The contracting cycle for certain long-term contracts may extend beyond one year, and accordingly, collection of retainage on those contracts may extend beyond one year. Contract assets include amounts billed to customers under retention provisions in construction contracts. Such provisions are standard in the Company's industry and usually allow for a small portion of progress billings on the contract price, typically 5%-10%, to be withheld by the customer until after the Company has completed work on the project. Based on the Company's experience with similar contracts in recent years, billings for such retention balances at each balance sheet date are finalized and collected after project completion. Generally, unbilled amounts will be billed and collected within one year. The Company determined that there are no material amounts due past one year and no material amounts billed but not expected to be collected within one year. Retainage included in contract assets at December 31, 2022 and 2021 was $12,662 and $9,878, respectively.

Property, Equipment, and Depreciation

Property and equipment are stated at historical cost, less accumulated depreciation and when necessary, impairment charges. 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.

Goodwill

Goodwill recorded on the Consolidated Balance Sheets results from business acquisitions and is based on a fair value allocation of the businesses' purchase price at the time of acquisition. Goodwill is charged to expense only when it is impaired. The Company performs goodwill impairment tests at least annually and evaluate goodwill when events or changes in circumstances indicate that its carrying value may not be recoverable. The Company recognizes a goodwill impairment by the amount a reporting unit's carrying value exceeds its fair value, not to exceed the carrying amount of goodwill within that reporting unit. The Company performed the annual goodwill impairment tests annually, and determined that no goodwill impairment charge was required in either year.

Intangible Assets

The Company's intangible assets represent finite-lived assets that were acquired in a business combination, consisting of customer relationships and our ESPC (Energy Savings Performance Contracts) license, and are recorded at acquisition-date fair value, less accumulate amortization. Intangible assets with finite lives are being amortized to operating expense in the consolidated statements of operations on the straight-line method over their estimated useful life. Useful lives are generally based on contractual or legal rights. The straight-line

method of amortization is used because it best reflects the pattern in which the economic benefits of the intangibles are consumed or otherwise used up.

Impairment of Property and Equipment and Intangible Assets

Long-lived assets are reviewed for impairment in accordance with guidance issued by the Financial Accounting Standards Board (FASB). Management reviews long-lived assets that are held and used for impairment whenever events or changes in circumstances indicate that their carrying amounts may not be recoverable. If an evaluation is required, the estimated future undiscounted cash flows associated with the asset are compared with the asset's carrying amount to determine if there has been an impairment, which is calculated as the difference between the fair value of an asset and its carrying value. Estimates of future undiscounted cash flows are based on expected growth rates for the business, anticipated future economic conditions and estimates of residual values. Fair values take into consideration management's estimates of risk-adjusted discount rates, which are believed to be consistent with assumptions that marketplace participants would use in their estimates of fair value. There were no impairments of property and equipment or intangible assets recognized during the two years ended December 31, 2022 and 2021.

Subsequent Events Evaluation

Management performs a review of subsequent events for any events occurring after the balance sheet date but prior to the date the financial statements are issued. The Company has evaluated subsequent events through March 10, 2023, the date on which the financial statements were available to be issued.

Note 2 – Accounts Receivable

Accounts receivable at December 31, 2022 and 2021 consisted of the following:

	2022	2021
Accounts receivable		
Completed contracts	$ 631	$ 253
Contracts-in-process	31,442	20,469
	32,073	20,722
Less allowance for doubtful accounts	(35)	-
	$ 32,038	$ 20,722

Note 3 – Contract Assets and Liabilities

The timing of when we bill our customers is generally dependent upon agreed-upon contractual terms, milestone billings based on the completion of certain phases of the work, or when services are provided. Sometimes, billing occurs subsequent to revenue recognition, resulting in unbilled revenue, which is a contract asset. Also, we sometimes receive advances or deposits from our customers before revenue is recognized, resulting in deferred revenue, which is a contact liability.

Contract assets in the consolidated balance sheet represent the following:

-costs and estimated earning in excess of billings, which arise when revenue has been recorded but the amount will not billed until a later date; and

-retainage amounts for the portion of the contract price earned by us for work performed, but held for payment by the customer as a form of security until we reach certain construction milestones;

Contract assets and liabilities at December 31, 2022 and 2021 consisted of the following:

	2022	2021
Contract assets		
Revenues earned in excess of billings on uncompleted contracts	$ 4,190	$ 15,209
Retainage receivables	12,662	9,878
	$ 16,852	$ 25,087
Contract liabilities		
Billings in excess of revenues earned on uncompleted contracts	$ 43,257	$ 12,280

The amount of revenue recognized in the two years ended December 31, 2022 and 2021 that was included in the opening contract liability was $11,500 and $14,129, respectively. The difference between the opening and closing balances of the contract liabilities primarily results from the timing differences between the Company's performance and the customer's payment.

Revenue expected to be recognized on contracts in place as of December 31, 2022 is $287,579 for 2023 and $561,646 thereafter.

Note 4 – Intangible Assets and Goodwill

Intangible Assets and Goodwill at December 31, 2022 and 2021 consisted of the following:

	2022	2021
Goodwill, not subject to amortization:	$ 29,740	$ 29,740

	December 31, 2022		
Intangible assets, subject to amortization:	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Customer relationships	$ 7,096	$ (6,209)	$ 887
ESPC licenses	6,045	(818)	5,227
Total	$ 13,141	$ (7,027)	$ 6,114

	December 31, 2021		
Intangible assets, subject to amortization:	Gross Carrying Amount	Accumulated Amortization	Net Book Value
Customer relationships	$ 7,096	$ (5,500)	$ 1,596
ESPC licenses	6,045	(520)	5,525
Total	$ 13,141	$ (6,020)	$ 7,121

Expected annual intangible amortization expense:	2023	$ 1,007
	2024	475
	2025	297
	2026	297
	2027	297

Average remaining lives at December 31, 2022 for Customer relationships and ESPC licenses are 1.25 years and 17.50 years, respectively.

Note 5 – Property and Equipment

Property and equipment at December 31, 2022 and 2021 consisted of the following:

	2022	2021
Equipment (5 to 10 yr life)	$ 8,712	$ 11,060
Leasehold improvements (5 yr life)	2,165	1,356
Construction-in-progress	-	2,063
	10,877	14,479
Accumulated depreciation	(6,583)	(6,766)
	$ 4,294	$ 7,713

Depreciation expense for the two years ended December 31, 2022 and 2021 was $1,260 and $1,763, respectively.

Note 6 – Commitments and Contingencies

In the normal course of business, the Company enters into contracts requiring it to timely install infrastructure, operate facilities, pay vendors and subcontractors and support warranty obligations and, at times, issue payment and performance bonds and other forms of assurance in connection with these contracts.

Specific to the Company's role as a general contractor in the performance contracting industry, as of December 31, 2022, there were 66 open surety bonds supporting future performance with an aggregate face amount of approximately $646,170. The Company's exposure is less than the face amount of the surety bonds and is limited to the level of uncompleted work under the contracts. As of December 31, 2022, approximately 37% of the work was yet to be completed on projects with open surety bonds. Further, various subcontractors issue surety bonds to the Company. In addition to these performance obligations, the Company also warrants the functionality of certain installed infrastructure generally for one year and the associated energy savings over a specified number of years. As of December 31, 2022, there were 34 warranties totaling $521,338 and an additional $1,389,974 in energy savings commitments.

Since inception in 1994, the Company has had a history of generally meeting its performance obligations and energy savings guarantees and its installed products operating efficiently. The Company has determined based on historical results that an energy guarantee reserve is unnecessary.

Note 7 – 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 8 – Parent Financial Services and Security Agreement

The Company and its member's Parent have entered into a financial services and security agreement whereby the member's 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, 4.76 percent at December 31, 2022. There were no outstanding borrowings at December 31, 2022 and 2021.

The Company also has a long-term borrowing credit facility with its member's Parent with a borrowing limit of $40,000. 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, 2022 and 2021. Generally, all of the Company's real and tangible property is subject to the lien and indenture per the outstanding amounts on the borrowing agreements with the member's Parent.

Note 9 – 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 (CenterPoint Energy) 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 10 – Employee Incentive Plans

The Company has a defined contribution plan with a profit-sharing component for all employees. 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 two years ended December 31, 2022 and 2021 was $4,150 and $4,067, respectively.

Note 11 – Related Party Transactions

At December 31, 2022 and 2021, the Company had a short-term note receivable due from its member's Parent of $65,448 and $28,530, respectively. The Company invests excess cash with the Parent and has the ability to draw from this invested cash as needed.

In addition to the short-term note receivable, there were intercompany amounts due from its member's Parent as of the two years ended December 31, 2022 and 2021 of $7,988 and $4,234, respectively.

For the two years ended December 31, 2022 and 2021, the Company had net related-party interest income of $1,019 and $58, paid at the affiliate's borrowing rate.

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

Note 12 – Leases

The Company enters into various operating lease agreements containing equipment and office facility leases. The leases are long-term noncancelable 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.

The components of lease cost included in operating expenses on the consolidated statements of operations and member's equity at December 31, 2022 and 2021 are as follows:

	2022	2021
Operating lease costs	$ 1,951	$ 1,901
Short-term lease cost	133	105
Total lease cost	$ 2,084	$ 2,006

The following table summarizes the lease-related assets and liabilities recorded in the consolidated balance sheets at December 31, 2022 and 2021:

	2022	2021
Assets:		
Operating lease right-of-use asset	$ 4,837	$ 5,762
Total leased assets	$ 4,837	$ 5,762
Liabilities:		
Current operating lease liability	$ 1,430	$ 1,364
Long-term operating lease liability	3,407	4,398
Total leased liabilities	$ 4,837	$ 5,762
Weighted-average remaining lease term (in years) - leases	4.0	4.8
Weighted-average discount rate - operating leases	3.0%	3.0%

Cash paid for amounts included in the measurement of operating lease liabilities for the years ended December 31, 2022 and 2021 is as follows:

	2022	2021
Included in operating cash flows	$1,951	$ 1,901

As of December 31, 2022, the Company's estimated minimum future operating lease obligations are as follows:

Years Ending December 31,	
2023	$ 1,589
2024	1,224
2025	1,054
2026	700
2027	636
Thereafter	-
Total minimum lease payments	5,203
Less: interest	(366)
Present value of operating lease liabilities	4,837
Less current portion	(1,430)
Long-term portion of operating lease obligations	$ 3,407

Note 13 – 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 the year ended December 31, 2022, the Company had one major customer from which revenues totaled $32,383. During the year ended December 31, 2021, the Company had one major customer from which revenues totaled $24,900.

At December 31, 2022, large contracts receivable balances from two customers totaled $11,567. At December 31, 2021, large contracts receivable balances from three customers totaled $15,062.

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, Ohio 45241
Phone: (513) 563-4911
Fax: (513) 563-5017

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

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

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

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

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

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

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

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

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

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

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

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

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

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