



PRESENTED TO
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF GENERAL SERVICES
06/29/2017 – 2:00 PM

PENNSYLVANIA CAPITOL COMPLEX

DAUPHIN COUNTY, PA

PROJECT NO. GESA 2017-1
CONTRACT NO. GESA 2017-1.1

VOLUME I TECHNICAL SUBMISSION



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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.
 - See statement attached to Non-Collusion Affidavit as Exhibit 1.
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 RFP, 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 proposal 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 Quote 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 20 years.)



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

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

I am authorized to sign this Quote on behalf of the Offeror and I agree and state that The Efficiency Network (TEN) 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 proposal is submitted. I understand and my firm understands that any misstatement shall be treated as fraudulent concealment from the Department of General Services of the true facts relating to the submission of this Quote.


Signature

Robert G. Campbell
President & Chief Operating Officer
The Efficiency Network, Inc.



Non-Collusion Affidavit

DGS Project Number: GESA 2017-1

State of Pennsylvania:
County of Allegheny: s.s.

I state that I am the Chief Executive Officer of The Efficiency Network 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 a 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. The Efficiency Network 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:
 - See statement attached as Exhibit 1.

Exhibit 1 - A former employee pled guilty to conspiracy to commit fraud in bidding on that public contract. The Company was not charged and had no knowledge of his actions

I state that The Efficiency Network 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.

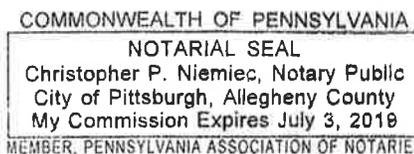
Robert G. Campbell, President & Chief Operating Officer

SWORN TO AND SUBSCRIBED
BEFORE ME THIS 28th DAY OF
June, 2017

Notary Public

Christopher P. Niemiec, Vice President, Finance

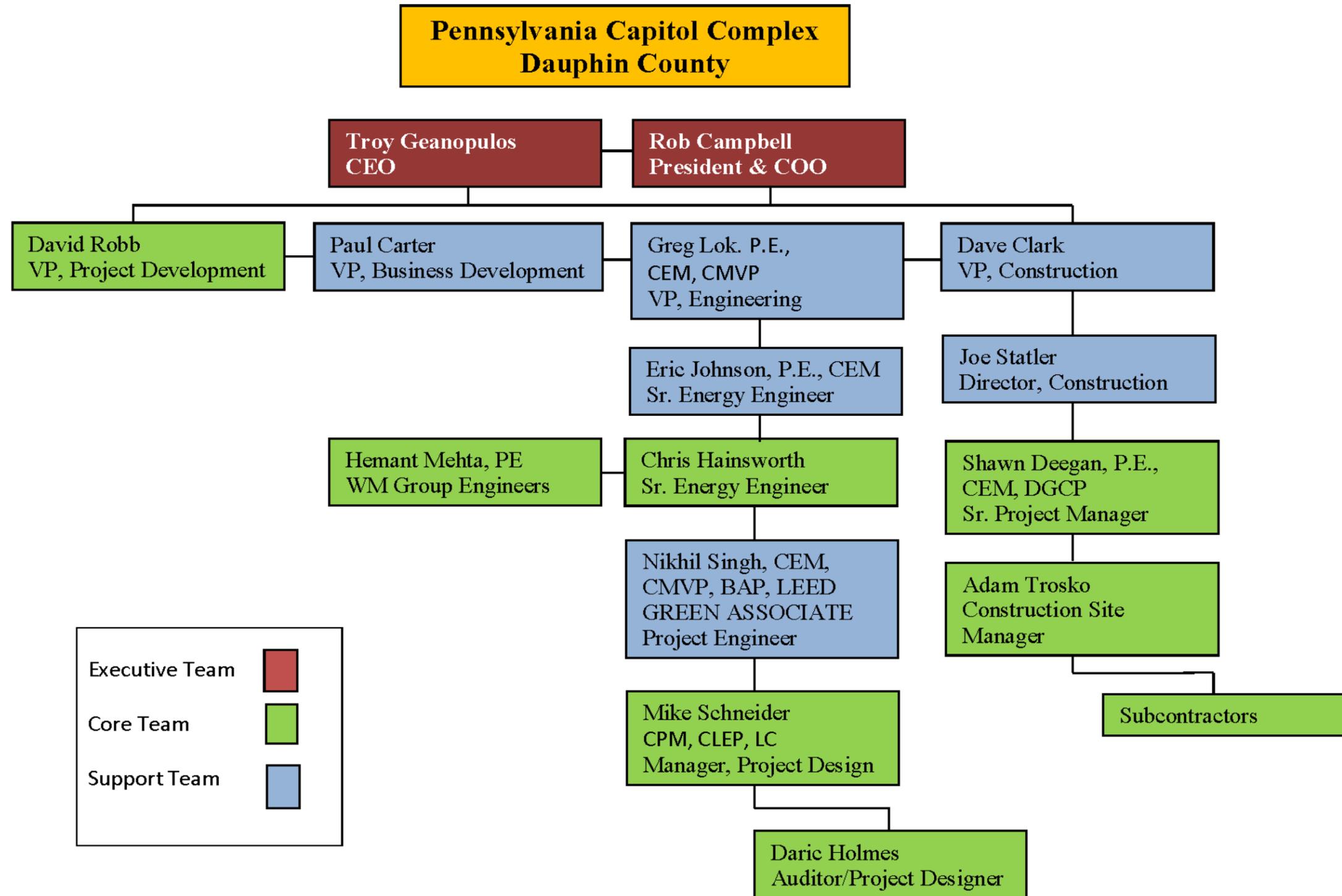
My Commission Expires 07-03-19





1. Project Management Team Overview (2-5.1)

A. Project Team Organizational Chart





All the identified core team members, carefully chosen from our staff of 35 professionals, have a successful history of developing and implementing projects together. In fact, very specifically, all but one have previously delivered similar projects to those contemplated here for the Commonwealth under current and previous employment. TEN is also the ESCO for the DGS Small GESAs-1 and DGS Small GESAs-2 projects, which not only demonstrates our team's comfort level working within state government facilities but also our familiarity with the GESA energy audit, construction and M&V requirements. These past projects, although in different buildings, also encompassed the diversity of Energy Conservation Measures (ECMs) contemplated here.

Greg Lok, (P.E., CEM, CMVP), Vice President of Engineering, Mr. Lok's responsibilities include managing the engineering group including design and M&V, developing the scope, cost and savings. As an industry-recognized energy efficiency engineering expert he is a proven team leader and project manager, adept at developing creative and cost-effective engineering solutions for a broad range of building types. In addition to his current responsibilities, Mr. Lok previously managed Constellation's MUSH (Municipal Governments, Universities, Schools, Hospitals) Energy Services team with over 35 professional designers and engineers encompassing projects from coast to coast.

Role for this project: Mr. Lok will be managing the engineering team as well as reviewing engineering designs and energy savings calculations. Mr. Lok will directly assist the engineering team when needed. Percentage of time: 10% during the audit.

Mr. Lok has worked on the Small GESA #1, Dauphin County, PA State Capitol, and Temple University, DPW-Polk Center, with various project team members including Dave Clark, Daric Holmes, Joe Statler and Rob Campbell.

Daric Holmes, Project Designer, audits, designs, and oversees field installations and testing of high-quality, cost-effective lighting and water conservation measures. His extensive field experience allows him to improvise and revise designs to best meet all situations. Having directly managed the electrical labor sub-contractor on the previous DGS lighting upgrades and most recently designed the Keystone and PJC LED upgrades, Mr. Holmes has a strong appreciation for what is required for this project and has incorporated it in his current role. With over 20 years of experience in lighting industry, including eight years of military service, Mr. Holmes is a strong asset to effective, well designed projects.

Role for this project: Mr. Holmes will be responsible for the audit and preliminary design of the LED lighting upgrades and lighting control opportunities. Percentage of time: 30% during the audit, 5% during construction.

Mr. Holmes has worked on the Small GESA #1, the PA State Capitol, Dauphin County and DPW-Polk Center projects with various project team members including Dave Clark, Joe Statler, Rob Campbell, and Greg Lok.

Mike Schneider, CPM, CLEP, LC, Manager of Project Design, researches, designs, and oversees field installations and testing of high-quality, cost-effective lighting and water conservation measures along with various energy saving and capital improvement measures. His extensive field experience allows him to improvise and revise designs to best meet all situations. Having worked with nearly 60 lighting manufacturers during his 15 years in the energy field, he knows the products, how they work, and the best applications for each option.

Role for this project: Mr. Schneider will be responsible for the final design of the LED lighting upgrades and lighting control opportunities. He along with Mr. Holmes will ensure consistent cost-effective design among both Capitol Complex and Keystone/PJC LED upgrades. Percentage of time: 15% during the audit.

Mr. Schneider has worked on the Small GESA #1, Small GESA #2, City of Harrisburg, Kutztown University, Cheyney University and Rachel Carson State Office Building with various project team members including Dave Clark, Joe Statler, Rob Campbell, Greg Lok, and David Robb.



Chris Hainsworth, Sr. Energy Engineer

Mr. Hainsworth is eager to understand the priorities, preferences, and facility complaints identified by his client, and then to assemble a scope of improvements and contractors best suited to those specific needs. With more than 30 years of experience, he excels at quantifying economics and concise descriptions. The satisfaction of each client is his aim. Because deficiencies and changing technologies have a significant economic impact on HVAC, central plant and distribution, process specialties, envelope, and all areas of controls, Mr. Hainsworth finds attention to the details of those systems usually garners his clients their most attractive returns. Of note, Mr. Hainsworth served as the energy engineer on both the recent Small GESA #1 and previous Constellation Capitol Complex GESA projects. He understands these unique buildings and systems well and will ensure modeling, design, savings and commissioning are consistent among both current projects to maximize performance without overstating savings.

Role for this project: Mr. Hainsworth will be responsible for further developing energy baselines, auditing the facilities, identifying and developing Mechanical / Thermal Building Solutions including, developing engineering designs and scopes of work, performing energy savings calculations, and review bid results / pricing. These responsibilities will also extend into the construction phase due to the close coordination required by engineering and our BAS and mechanical subcontractors to ensure proper installation and commissioning of these improvements. Percentage of time: 100% during the audit, 5% during construction.

Mr. Hainsworth has worked on the Small GESA #1, PA State Capitol, Community College of Allegheny County, Eastern Gateway Community College, Penn State with various project team members including Dave Clark, Joe Statler, Rob Campbell, Greg Lok and David Robb.

Nikhil Singh, (CEM, CMVP, BAP, LEED GREEN ASSOCIATE) Project Engineer, is an engineering and technical specialist with core skills in energy modeling, HVAC and controls re-tuning, data analysis, field testing and inspection of buildings, and energy audit report writing. He leads post-construction customer site audits, verifying energy efficiency strategies and calculating and reporting project performance.

Role for this project: Mr. Singh will be assisting the Lead Engineers (Mr. Hainsworth and Daric Holmes) and Greg Lok with implementing the measurement and verification plan. Percentage of time: 5% during the audit, 5% during construction, 5% during M&V.

Mr. Singh has worked on Small GESA #1, City of Harrisburg, City of Bethlehem, Temple University and United Steel Workers with various project team members including Dave Clark, Joe Statler, Mike Schneider, Shawn Deegan and David Robb.

Dave Clark, Vice President of Construction, is responsible for directing the project management staff, working on the development of new project design concepts and constructability, preparing scopes of work and bid specifications, and overseeing the project health and safety program. Particularly relevant is that Mr. Clark took a direct project management role in overseeing the Constellation / York installation of the new chillers under the last GESA project.

In addition to Mr. Clark's 30+ years of experience working in commercial and industrial facilities, he has accumulated more than 2000 hours of related education and training in professional management; building construction; mechanical, electrical and energy management systems and services; numerous college courses in business management. He also retains a national certification for General Contractor licensing in the states of AL, AK, GA, LA, MS, NC, SC, TN & WV.

Role for this project: Mr. Clark will collaborate with the engineering team on the development of project design concepts, constructability and maintenance; review scopes of work and bid specification, review subcontractor pricing and oversee the selection of subcontractors and construction management team. The important mechanical



requirements of this project warrant Mr. Clark's direct expertise in review of the design and constructability of the chiller plant ECMs. Percentage of time: 10% during the audit, 5% during construction.

Mr. Clark has worked on the Small GESA #1, PA State Capitol, DPW-Polk Center, Temple University and Dauphin County, with various project team members including Rob Campbell, Greg Lok, Joe Statler, Dave Robb, Nikhil Singh, Shawn Deegan and Daric Holmes.

Shawn Deegan, (P. E., CEM, DGCP), Sr. Project Manager, is responsible for all onsite project management and subcontractor supervision during construction. He ensures the worksite is safe and supervised in an effective and efficient manner. Mr. Deegan is the liaison between the construction team, engineers, and designers and the owners and stakeholders. In this role, he facilitates effective communication, safety decision-making and problem solving. With over 16 years of mechanical retrofit construction experience, Mr. Deegan is adept at project supervision, customer service, project development and management, building and installing.

Role for this project:

Mr. Deegan plans, coordinates, implements and concludes projects according to specifications, deadlines and budget, with an overall objective of customer satisfaction. Percentage of time: 25% during the audit, 70% during construction.

Mr. Deegan has worked on multiple phases at Temple University with various project team members including Dave Clark, Joe Statler, Rob Campbell, Mike Schneider, Nikhil Singh and Daric Holmes.

Adam Trosko, Construction Site Manager, will ensure daily site construction activities are supervised by TEN in conjunction with Shawn Deegan. Mr. Trosko's Architectural Engineering degree from Drexel University and construction management experience have already proven useful on the Small GESA #1 project currently under construction at the Keystone and PJC buildings as well as previous projects with the team at Temple University

Role for this project: Mr. Trosko will be responsible for daily coordination of subcontractors, inspections and commissioning, quality assurance and quality control. Percentage of time: 100% during construction.

David Robb, Vice President, Business Development, is responsible for leading TEN's development efforts and will serve as Program Manager for DGS Small GESA projects. With over 20 years of energy efficiency experience, he has a valuable combination of skills and expertise: a master's degree as well as hands-on experience in building construction management. He has extensive knowledge of facility auditing, performance measurement and verification, payback analysis and project development.

Role for this project: Mr. Robb will be DGS's program manager and main point of contact throughout the duration of the project. Mr. Robb's responsibilities will include working with DGS Representatives throughout the entire project from development through construction to M&V to ensure overall customer satisfaction. He will also coordinate the engineers, contract administrators, financial analysts, project managers and M&V specialists to execute deliverables and successful solutions for DGS.

Percentage of time: 40% during the audit, 5% during construction.

Mr. Robb has worked on the Small GESA #1, Small GESA #2, City of Harrisburg, Kutztown University, Temple University and Cheyney University with various project team members including Mike Schneider, Daric Holmes, Joe Statler, Rob Campbell, Dave Clark, Nikhil Singh and Shawn Deegan.

Rob Campbell, PE, MBA, President and Chief Operating Officer, is responsible for the day to day operations at TEN and manages the strategic planning and development goals of the clients. Mr. Campbell's primary responsibilities will involve coordination and assignment of resources and project personnel/subcontractors to ensure construction and engineering audit timelines are met. In this capacity, Mr. Campbell draws upon his over



25 years of energy efficiency experience in rolls from engineering, operations as well as financial and strategic management. As the President and CEO, he has the authority to execute quick decisions which enables TEN be to creative, flexible and responsive to client's needs. Mr. Campbell has been involved with all previously mentioned projects.

TEN's engineering and construction teams work closely with each other to develop the scopes of work that are competitively bid (or negotiated) to customer qualified vendors and contractors to ensure that the design intent is met, the project / system can be installed properly and maintained, and the construction team is very familiar with the project before installation begins. This seamless and transparent hand-off to construction ensures quality control including well planned procurement and timely delivery of material to facilitate an efficient and well managed installation. TEN's team is also open to our subcontractors' input when it improves the design and/or lowers the cost to provide a better and more sustainable solution for each customer.

Subcontractor Selection Process - TEN believes that it will provide the best value for the Capitol Complex's Energy Efficiency Program dollars. TEN's efficient cost structure and strong local presence will allow DGS to obtain a maximum amount of improvements for its available energy and operational savings. Further, TEN's independence from any particular subcontractor and manufacturer ensures that it is able to provide the most appropriate solutions that efficiently address specific needs. As a result, TEN can develop an objective and unbiased partnership with DGS by implementing the equipment and system upgrades that generate maximum returns.

The currently anticipated list of subcontractors includes Johnson Controls, Automated Logic, Hunt Consulting with whom our team has worked successfully in other DGS buildings including the Small GESA #1, the Capitol Complex GESA in 2009 and again in 2017. Hunt Consulting will complete the lighting installation work in conjunction with TEN's internal auditing and design team. Huckestein Mechanical is planned to support HVAC and chiller plant solutions in conjunction with Hemant Mehta, PE from WM Group who was instrumental in optimizing the Capitol Complex chilled water loop & plant in 2003 & 2005. Zavorski Masonry Restoration is planned to address building sealing and Solar Comfort the window film. DGS will have an opportunity to review the qualifications and additionally pre-qualify these potential sub-contractors.

Construction Management Approach

TEN's commitment to offering energy efficient solutions is evident based on the credentialed, high-caliber team assembled at TEN to deliver world-class energy efficiency – including a significant focus on performance contracting. **This is our exclusive focus.** There are few, if any, energy and utility situations TEN has not already encountered and successfully addressed. TEN has a significant amount of engineering and technical resources to support the project throughout the contract term.

When it comes time for installation, TEN's dedicated staff of experienced project and construction managers specialize in delivering guaranteed, energy efficient solutions as planned. After TEN has assisted DGS with competitively procuring equipment and materials (decided upon during the design phase), the installation can begin. During the project, TEN's onsite construction project managers will collaborate with our internal engineering team on specific design issues. The presence of TEN's onsite project management throughout the process is critical to ensuring overall project success for this significant initiative undertaken by DGS. TEN's project management is key to a quality installation, and we guarantee that there will be accountable TEN employees assigned to this project throughout each task required by DGS. Please refer to the next section for more detail.

Committed Team

The Efficiency Network commits the personnel identified on this project team to the GESA 2017-1 Pennsylvania Capitol Complex project and shall not alter the organizational structure without prior written authorization by the DGS.



2. Work Plan for This Project (2-5.2)

In this section, we have detailed the skills and steps necessary to the delivery of a successful project. Key among them is the engagement of TEN’s project management team from the beginning of any audit and design process to ensure that DGS’ objectives are addressed and that the solutions proposed are buildable. This process also includes gaining a clear understanding of phasing requirements and coordination of construction to minimize the effect on tenants. TEN has never asked a tenant to vacate their workspace for the upgrades contemplated under an energy performance project. We always adjust the project work flow to accommodate client schedules and regularly work 2nd and 3rd shift to avoid and distractions.

Please take note of TEN’s cTEN application which provides daily effective communication to key project participants. This tool is used in addition to regular site supervision, project meetings, meeting minutes and look ahead schedules to avoid unnecessary impact on building occupants.

Project Management Approach

TEN has a large and experienced lighting design team. Lighting is a dominant component of most every energy performance contract and is typically outsourced in a turnkey manner by ESCOs to third party lighting contractors. TEN takes a very different approach that creates a better and more predictable outcome, at a lower cost. At TEN all design, equipment procurement and construction management is performed by direct TEN employees instead of through a third-party lighting contractor. TEN only outsources installation labor. The TEN lighting process involves a great deal of sample installations and a focused design approval process that is a critical step given the long-term consequences that are associated with LED technologies. As we say, “the good news about LED is the life expectancy but the bad news about LED is life expectancy.” (The point being that it is possible to suffer with a mistake for a long time.) It is absolutely critical to make the right, informed decisions about LED design and we are adamant that our approach, driven by internal resources that we control as opposed to unrelated contractors, is better and more cost-effective.

Accurate Reporting - Reporting to The Efficiency Network’s (TEN) Director, Construction Services, TEN’s on-site 30-hour OSHA Certified Project Manager is accountable for the management of all assigned project construction activities taking place in the building(s). The Project Manager (PM), through their on-site management, will ensure that the worksite is safe, supervised and managed in an effective and efficient manner. Maintaining and managing communications with and directing the activities of all subcontractors is key to the success of the project. Our project managers utilize our cTEN application to quickly and efficiently report progress, concerns and work scheduled to be performed the following day. This communication will be shared with both our Director of Construction Services and the DGS project representatives as another procedure to monitor quality control.

TEN | THE EFFICIENCY NETWORK
THE EFFICIENCY NETWORK | THE EFFICIENCY NETWORK
CONSTRUCTION PROGRESS REPORT

Subcontractor:
Hunt Consulting

Location:
15-01-031 PA DGS Small GES A 1 -
Keystone Building -5th Floor West Open
Office Area

Weather:
Sunny

Report Date:
6/15/2017

Keystone 5th Floor West T5

6" Can light samples

Action Items that The Efficiency Network will need to address:
There are no Action Items to be addressed at this time.

Delays:
There were no delays.

Verbal instructions received:
There were no instructions received.

Visitors:
There were no visitors.

Work performed today:
Hunt Consulting Installed: (124) T5 RLRB Pendants in Open Office Areas (30) T8 RLRB in utility spaces / restrooms (2) 6" Can samples for review

Work to be performed following day:
Monday 6/19 2x2 Installation on 3rd Floor east OR T5 installation on 5th floor east confirmation to be provided monday pending delivery schedule

Reported by: Adam Trosko



Timely delivery - TEN believes that quality control starts in the project development stage and continues all the way through construction and measurement and verification. An effective energy savings program requires interaction between engineering and construction management during design. We establish this interaction by involving the construction team during the development phase of the project to ensure the “constructability” of the solutions we propose. The ultimate success of any energy savings project is measured by the ability of the installed systems to achieve the projected savings targets and to meet environmental and comfort expectations over a sustained period, while the success of a brilliant design is predicated by its ability to be constructed. TEN takes a comprehensive approach to development and engineering to establish this critical balance. This approach is possible because TEN utilizes **in-house** engineering and construction management to develop and deliver each project.

Our engineering and construction teams work closely with each other to develop the scopes of work that are competitively bid (or negotiated) to customer qualified vendors and contractors to ensure that the design intent is met, the project / system can be installed properly and maintained, and the construction team is very familiar with the project before installation begins. This seamless and transparent hand-off to construction ensures quality control including well planned procurement and timely delivery of material to facilitate an efficient and well managed installation. TEN’s team is also open to our subcontractors’ input when it improves the design and/or lowers the cost to provide a better and more sustainable solution for each customer.

A perfect example of working within the customer’s time constraints is our Penn State Beaver Stadium project because the significant element of this project was the timing. To be ready for the 2015/16 football season, TEN had to expedite delivery of materials and contractors’ schedules. The Beaver Stadium project included the installation of a comprehensive LED lighting system upgrade with a wireless controls system - including exterior entry gates, concession walkway areas, loading docks, main concourses, ADA-accessible ramps, pedestrian ramps, and stairways. All were completed on budget and in time for the first game of the season! Key interaction and communication with the University was essential to ensure this critical timeline was met.

Community College of Allegheny County had a similar urgent need that TEN was able to accommodate through close coordination among our engineers, project managers, design-build mechanical contractor and development team. In this case the South Campus existing boilers and chillers were not expected to make it through another heating/cooling season, and the building had to remain occupied during the project. CCAC was able to avoid the cost of a rental chiller even with a tight turn around. The GESA contract was signed March 25, 2015 with the first chiller coming on line in May (two months later).

On-cost delivery – As described above, the integration of TEN’s engineering and construction teams from the onset of development ensure that TEN’s projects can be built on time and on budget. TEN excels at effective communication / accurate reporting, timely and on-cost delivery as well as technical excellence.

Technical Excellence - The Efficiency Network is comprised of professional staff, most of whom have been active in energy management for more than twenty years. TEN has a staff of experienced professionals who are very familiar with the unique aspects of designing and constructing energy services projects in numerous settings and have collective project experience more than \$700 million. TEN takes a comprehensive approach to designing and constructing energy savings projects and performs all energy engineering and construction management in-house employs its own lighting auditing, design and project management professionals. These professionals keep directly in tune with the lighting marketplace in terms of product innovations, availability and pricing. We also negotiate product pricing directly with manufacturers and lighting representatives to minimize layers of markup. In this way, we are also able to provide the most appropriate design for our client’s available savings. In contrast, most of our competitor’s turnkey sub-contract their entire lighting audit, design, material procurement and construction.

Steps to Successful Program Delivery and Contractor Quality Control

Critical Path Schedule - The major general steps of a TEN implementation plan are as follows:



A draft Critical Path Method (CPM) schedule is attached further in the Technical Response. In addition to the more general narrative below, it sets forth the logical progression of the proposed project including notice of energy audit award, duration and submission date of the energy audit, full execution of the GESA contract, permits submission and approval dates, durations of on-site work, commissioning and training. Also addressed are coordination with local utilities, subcontractors, equipment suppliers and DGS/PA Capitol Complex facility personnel. Our construction team uses both Primavera (Required in the RFQ for DGS projects) and MS Project (which is preferred by many of our customers). If TEN is selected for this project, we commit to utilizing Primavera software and submitting future project schedules in that format.

Initial Project Startup / Notice of Award

Immediately upon award of the project, TEN will further develop the partnership approach with DGS and further identify the personnel required to efficiently execute this project with core team members, and DGS preferred equipment providers and subcontractors. Once all the members of the project team are identified, the expectations for the project and its implementation will be clearly documented and outlined. The project's implementation milestones will be established in the IGA/Final Proposal and in more detail in the project's regular construction meetings. These milestones will be confirmed regularly through clear lines of communication which have been established to facilitate a successful project implementation. At this point, we will coordinate with DGS on specific details such as site operations and logistics including lay down areas during construction.

Procurement

As the project scope is approved by DGS through the IGA/GESA, purchase orders will be pre-negotiated and ready for immediate issue for materials and subcontracts. During the IGA, TEN will carefully evaluate the pre-identified subcontractors and manufacturers to determine the most appropriate fit for the energy savings project scope. TEN's independence from any subcontractor or manufacturer ensures that it can provide the most appropriate solutions that efficiently address specific needs and goals. Thus, TEN can develop an objective and unbiased partnership with DGS by implementing the equipment and system upgrades that generate maximum returns. This approach also gives DGS the flexibility to select Small Diverse Business (SDB) contractors to optimize their desired participation goals. It should be noted that we have pre-qualified a team of SDB contractors for DGS consideration.

Construction

Regular meetings will be held with the DGS to establish construction guidelines and TEN will work with each DGS representative to minimize the impact of the construction activities on the facility's operations. Standard project management tools will be used to track progress. TEN prides itself on a proven track record of successful project implementations in varied settings which include everything from "after-hours" installations in offices and public areas to special access situations in restricted zones.

Construction services will be sourced through mutually agreed upon installation subcontractors who are additionally vetted based on the quality of their work and safety record. All subcontractors perform their work under the direction of our in-house construction project manager(s). TEN's construction project managers will continue to collaborate with our internal lighting design and engineering team on specific design issues. Our project management team will also be responsible for providing DGS with appropriate training and operating and maintenance (O&M) manuals, and overseeing project commissioning.

Following are items that need to be considered and addressed during the investment grade audit and final design to ensure a successful project for the contemplated core ECMs.

Potential Design Issues

- TEN's proposal for the Capitol Complex GESA project (GESA 2017-1) accounts for savings captured in the Small GESA #1 project. Our engineers specifically deducted the previous savings from the baseline prior to forecasting the impact of upgrades proposed for this project found in Volume II ECM-Cost Submission



- Our IGA evaluation will more deeply model the chilled water plant consumption, and will balance use and loads among connected buildings. We propose to identify the cooling capacity or load changes available for L&I through pure cooling enhancements, in tandem with offsets which may be practically achieved through LED lighting, lighting controls, film, caulking, and control upgrades not specifically targeting the chilled water system.
- We anticipate the availability of greater detail in records of chilled water production and distribution.
- The IGA will confirm structural detail beneath certain areas of the chilled water plant floor to support free cooling equipment.

Critical material and equipment / long lead items

- Review and approval of key lighting design and material during the IGA as to facilitate on-site work within 20 calendar days of execution of contract (per page 26 of RFQ).
- Installation or recommissioning of chilled water metering & cooling season data to aid in final system design.
- Accelerated design and shop drawing approval for the plate and frame heat exchangers, hot tap locations, and platform contemplated for strategic placement within the chilled water plant.
- Consideration of the longer lead-time required for delivery of the replacement motor and possibly the VFDs and heat exchangers, depending on timing of contract execution.

Phases of construction

- Seasonality of chilled water plant ECMs. We have priced hot taps for both the chilled and condenser water system connections as to minimize any requirement for plant shutdowns. Further, VFD conversion of the two condenser water pumps can be completed one at a time during winter operation and will be planned to minimize or eliminate altogether the need for a plant shutdown if the work can be executed safely.
- If replacement of sections of condenser water piping are sought as an addition to the scope, the IGA will be expanded to also include tie-in points and related changes to piping to be accomplished early in the construction process so that the entirety of the scope may proceed in an efficient and orderly manner.
- Building sealing solutions which involve work on the exterior are subject to weather constraints with regard to safe working conditions and temperature and moisture limitations for optimal application. The deployment schedule must remain cognizant of cure times and residual impact of sun and storm. Window tinting could be completed during second shift as not to disturb occupants.

Construction planning

- The TEN team has had good success identifying lay-down and storage areas within the Capitol Complex for the Small GESA #1 project and previously in the East Wing Garage to support the 2009 lighting project. While parking and logistics are more challenging during weekdays, there is far more flexibility on 2nd and 3rd shifts as well as weekends. Most mechanical, electrical and control work planned for the chilled water plant and mechanical spaces will be undertaken during normal business hours or on a four-10 basis. Changeovers will be scheduled sufficiently in advance to minimize disruption and to allow for adequate preparation by all parties.

Safety Plan, Management and Monitoring - In addition to pre-qualifying sub-contractors regarding their safety records, TEN will provide an individual experienced with safety programs in construction to serve as the Commonwealth's agent and representative in matters of construction safety, specifically one with experience which directly relates to state and local safety laws, including statutes, rules, regulations, and ordinances. Tasks will include the following:

- a) Review the timeliness of safety and accident prevention procedures and review and accept Contractor Safety Programs;
- b) If certain individuals are found to be continually in violation of safety requirements, direct the contractor to remove the individual employee, or to invoke any other contractual remedy deemed appropriate;



- c) Observe and monitor Contractor compliance with OSHA, the Commonwealth, and local and state laws and regulations;
- d) Periodically schedule and attend Foremen's 'tool box' safety meetings and evaluate effectiveness;
- e) Review and accept Contractor emergency and safety plans and procedures;
- f) Organize and participate in periodic site inspections and report on findings;
- g) Coordinate the Commonwealth's general and specific safety concerns with the Project; and
- h) TEN's involvement in the safety of the project shall in no way relieve or decrease a contractor's obligation for safety.

Quality Control

TEN believes that quality control starts in the development stage and continues all the way through construction and measurement and verification. An effective energy savings program requires a delicate balance between engineering and construction management. We establish this balance by involving the construction team during the development phase of the project to ensure the constructability of the solutions we propose. The ultimate success of any energy savings project is measured by the ability of the installed systems to achieve the projected savings targets and to meet environmental expectations, while the success of a brilliant design is predicated by its ability to be constructed. TEN takes a comprehensive approach to development and engineering to establish this critical balance. This approach is possible because TEN utilizes in-house design, engineering and construction management.

Our design, engineering and construction teams work closely with each other to develop the scopes of work that are competitively bid to qualified vendors and contractors to ensure that the design intent is met, the project/system can be installed properly and maintained, and the construction team is very familiar with the project before installation begins. This seamless and transparent hand-off to construction ensures quality control. TEN's team is also open to our subcontractors' input when it improves the design and/or lowers the cost to provide a better solution.

Inspections & Reporting

As part of our Quality Control program, continuous inspections during construction are performed to ensure compliance with the scope of work and the Commonwealth's requirements and safety. TEN's project managers and engineers along with the DGS representatives will inspect the construction of the energy conservation measures. Progress will be tracked on a daily and bi-weekly basis with results shared with the assigned DGS representatives and the Project Team.

Reporting to TEN's Director of Construction, the on-site 30-hour OSHA Certified Project Manager is accountable for the management of all assigned project construction activities taking place. The Project Manager (PM), through their on-site management, will ensure that the worksite is safe, supervised and managed in an effective and efficient manner for DGS. Maintaining and managing daily communications with and directing the activities of all subcontractors is key to the success of the project.

Project Closeout Process

Project Commissioning Process

Commissioning is one stage of TEN's quality control process. Commissioning will verify that the related equipment and systems are installed and functioning in accordance with the design intent. Commissioning assures that what has been purchased by DGS has in fact been provided. Proper commissioning is a key component of all energy conservation measures to ensure not only functionality and optimal operation but also guaranteed and sustainable savings.

Commissioning begins during the project design phase and continues after construction is complete. It requires thorough documentation of system design, construction quality, functional performance tests, and operation and maintenance requirements. The training of building operators and staff also is a key component of building commissioning since staff may be responsible for some equipment maintenance.



Project Acceptance

TEN's Project Manager will work in conjunction with the Commonwealth personnel to make sure all measures are performing as designed. Any deficiencies will be identified as punch list items and will be used to track and correct the deficiencies. Once DGS and Project Manager have signed off on the completion of the Project, it is technically turned over to the facilities operation personnel.

The Project Acceptance date marks the start of the workmanship warranties and the savings measurement period. Often initial savings are confirmed at this point and savings performance reviewed with our customer. In addition, a functional O&M Manual would be provided to help optimize facility operation to continue to provide significant energy savings and comfort benefits. TEN views its O&M Plan as a risk reduction strategy, which will help equipment run efficiently, function properly, and deliver its full life expectancy.

Operation & Maintenance Plan:

TEN's partnership approach continues throughout the contract term after the project's implementation to ensure that the savings guarantee and equipment operating parameters are realized. The ECM warranties will be well-documented in the project-specific operating manuals and TEN stands ready to assist DGS on any warranty issues. TEN's approach to cost-effective maintenance of the project is to train DGS staff whenever possible.

Training - Training is an important aspect of TEN's offering. On-site personnel need to understand the objectives of the energy savings program and equipment operation to meet those objectives. In that light, comprehensive training is usually held on-site, during the construction phase to familiarize the staff with the new systems. Most training is focused on familiarizing the facility personnel with the new equipment being installed, the equipment / system operation and regular maintenance. Most of the training takes place during start-up of the equipment, the commissioning process or at project completion. All training is coordinated by the project manager(s) and the operations representative.

Measurement and Verification (M&V)

TEN will provide a customized M&V plan for new and existing equipment in accordance with the International Performance Measurement Verification Protocol (IPMVP). Our experience with all options (A, B, C and D) enables us to delineate the cost and benefits of each approach which will help DGS in determining the optimal structure of the M&V plan. In general, it's viewed as more cost effective to invest in comprehensive M&V strategies for those ECMs that pose the greatest overall savings risk to the customer and use more straight forward M&V strategies for those ECMs that pose the least overall savings risk to the customer to preserve available savings to support a greater number of project building system improvements.

Potential Complications and Risks

Challenges always arise in construction; TEN believes it is our responsibility to minimize the challenges and/or complications by anticipating and avoiding them before they arise. TEN's project management team has years of experience doing just that. However, some challenges invariably still arise, and TEN is uniquely positioned to handle those too with our experienced site project managers and accessible local executive leaders that stay close to the progress of the projects which enable TEN to be flexible, responsive, and nimble to address issues before they become problems for our clients.

Working in Occupied Environments

Nearly all our projects have been completed in occupied buildings where careful coordination and frequent/clear communication have resulted in successful implementation with little to no tenant disruption. These include projects for office buildings, government facilities, universities, school districts, housing authorities, condominiums and hospitals. Each with varied access requirements including high security.

TEN's team has worked on many projects, Small GESA #1, Penn State University, Ohio University, Cheyney University, UPMC and others, and the typical challenges included minimizing disruptions in student/tenant occupied



buildings, tight timeframes, seasonal / weather concerns, coordinating cranes/lifts/equipment deliveries. TEN has experience with all these types of challenges. We have found most of the challenges can be avoided through solid project management and clear communications with the customer.

TEN has completed lighting installation in offices, courthouses, prisons, classrooms and even patient rooms without any issues due to the coordination and communication used by our site project managers. Our team is used to working shifts to minimize disruptions. Our team has completed comprehensive projects for Penn State where we had extremely tight deadlines and had to coordinate with other trades working in the same space when performing retrofits in their dormitories during the summer break. We completed an LED lighting upgrade for PSU Beaver Stadium that had to be substantially complete before the end August despite only receiving the contract in May. As you would expect, this required careful planning and a nuanced implementation schedule that allowed for potential material delivery delays (LED luminaires). As we anticipated, the material was two to three weeks late, but we were still able to exceed PSU's deadline by continuous follow up with the manufacturer on delivery dates and constant communication and coordination with our subcontractor as to when to increase the crew size.

Additional areas requiring special attention include our team experience coordinating crane lifts that required sidewalks and street closures without any issues. We have experienced environmental issues and developed control environments to capture and prevent the release of contaminants. At the PA Capitol Complex's original project, we were tasked with cutting out 1800 old lead-based painted steel windows. We designed a HEPA vacuum attachment to capture the dust particles during the cutting of the steel mullions eliminating the need for erecting large containment barriers substantially reducing the removal cost and accelerating the installation schedule.

ECM Opportunities

To verify the feasibility of the selected ECMs, experienced energy engineers, auditors, construction managers, project developers, and finance professionals from TEN all collaborate analyzing the energy/water efficiency opportunities and ultimately assuring DGS that the proposed ECMs have been explored in a prudent and professional manner and in accordance with the DGS Design Manual. This then results in a detailed summary of the final ECM opportunities being recommended for each project. As you would expect, we review and solicit feedback on our findings and recommendations with DGS during pre-established progress meetings during the Investment Grade Energy Audit to ensure the final Audit Report is on target. **The following steps are integral to taking the proposal cost and savings from 90% and 95% accuracy to guaranteed contract values.**

TEN's methodology for selecting energy conservation measures (ECMs) begins with a meeting with the PA Capitol Complex and DGS to discuss their goals and objectives. In this case, DGS specifically identified the following core ECMs for inclusion in the project:

Electrical Measures

- LED Lighting Upgrade / Sensors

Facility Mechanical/Thermal Building Systems

- Central Plant chiller sequencing/VFD controls
- Capitol Complex Chilled water loop flow control and delta-T management
- Central Plant winter – free cooling system
- Window film treatments
- Labor and Industry Building Sealing of Exterior Walls

As such, our initial RFQ energy audit and analysis began by investigating and developing these ECM objectives for the Commonwealth. During this process the energy consuming systems, equipment, and provided documentation were analyzed to understand their potential for energy savings either by retrofitting or replacing the existing equipment, and by further developing equipment and recommissioning strategies to make the overall business operation of the facilities more financially solvent. TEN's cost structure and approach to business typically allow us to deliver a greater amount of scope for our customer's available savings opportunity. In fact,



in this case, we have identified significant excess savings that can fund additional improvements beyond the core ECMs. We look forward to discussing our planned solutions in greater detail in the ECM and cost submission.

If selected for the Investment Grade Audit, TEN looks forward to reviewing our initial design recommendations with the Commonwealth and receiving your feedback to ultimately optimize the best value project to meet your objectives. Key to our work will be application of the standards contained in the **DGS Design Manual** as well as adherence to **DGS General Conditions and Administrative Procedures**. Similarly, we will conduct the energy audit and deliver the report as outlined in section 1.35 of the RFQ. Where acceptable to the Commonwealth we will also introduce tools that TEN has developed to aid our clients in more easily evaluating and communicating information about their projects. Many of these tools, some of which are discussed in this section, also streamline development and reduce project costs.

When TEN is invited to assist in optimizing equipment selection and system design, our team goal is purely to serve the end customer with a high-quality project implementation which saves operating costs (utilities and maintenance) while delivering optimal comfort and other required environmental conditions. TEN's independence from any particular manufacturer enables us to provide the most appropriate solutions that efficiently address specific needs.

In these instances, TEN's engineers have been able to diplomatically work with traditional MEP engineers and Building Automation System vendors to help in the selection of equipment and systems that can deliver lower life cycle cost as well as environmental controls sequences that go beyond the typical 'worst-case scenario' sequences we still find specified on some projects.

When all parties ensure the target is higher end-user satisfaction and lower operating costs then good dialog occurs and enhanced solutions are found.



3. RFQ Project Schedule (2-5.3)

Establishing a realistic and well thought out plan for construction is critical to delivering an economical and successful project to our clients and ensuring a profitable outcome and good reference for our company. TEN has demonstrated experience with both. While developing and flexibly adhering to the project schedule is critical to all our projects, the fast-tracked solutions delivered through our Allegheny County Community College-South Campus central plant and Penn State-Beaver Stadium projects are excellent examples of TEN's capability in planning and optimizing a schedule to meet critical client deadlines. Each of these projects is addressed in greater detail in the next section.

TEN's experience delivering timely projects ranges from complex central plants solutions, intricate Continuous Automated Commissioning (CAC) Strategies to relatively straightforward lighting retrofits for varied clients such as Temple University, City of Harrisburg, Carnegie Museums as well as industrial clients. Each rely on is to deliver projects on time so that projected savings are realized in advance of any required financing payments. Perhaps most importantly, TEN already has experience working within and meeting the timelines and objectives of DGS.

The previous section addressed the necessary steps of the work plan to achieve a successful project outcome. As not be repetitive, we'll focus our attention on areas of risk and opportunity that can arise during construction and how the TEN team works quickly with our clients to address each. On pages 13 and 14 of the previous section we also delineated important considerations in the areas of Design, Equipment and Material Procurement, Phasing, and Construction Planning. To the extent those items are also important to the scoring of this section, we'd appreciate your referencing them.

Investment Grade Audit – Risks/Opportunities

- Too short an IGA period. The RFQ currently contemplates a 60-day IGA period. We'd recommend a slightly longer duration to ensure optimal final site evaluation / analysis / design as well as meaningful interaction / feedback with facility personnel.
- Incomplete or inaccurate chilled water flow meter data. To make the best use of the IGA period (regardless of the ESCO ultimately chosen), we recommend that DGS directly engage JCI as soon as possible to clean and recalibrate the existing chilled water flow meters. We have identified a price from JCI in Volume II to complete this work. Doing this work now will potentially provide useful summer data from the start of the IGA period expediting analysis and design. Granted, inaccurate data could be due to poor placement of the current meters but we recommend this initial approach to determine if additional metering is required. Alternately, if DGS prefers to wait, this scope could be incorporated into the IGA fee.
- Sample areas. Installation of meaningful sample areas for both lighting and window tinting are a necessity. The increased lumen efficiencies of LED lighting are dramatic and continually increasing. As such, it is easy for less experienced lighting designers to over illuminate a space (causing discomfort) and miss the facilities full savings potential. As a current example, the Health and Welfare Building has many areas where occupants or facility personnel have de-lamped fixtures installed in the 2001 capital upgrade. DGS will benefit from a thoughtful redesign of each buildings lighting verified through feedback on representative sample installations to yield an optimal environment for staff. There is also a unique opportunity to upgrade each buildings appearance if new fixtures are chosen. It is similarly important to secure buy-in with respect to the tint of the window film chosen and its impact on the space during both the daytime and evening as well as the reduced need to deploy existing blinds.
- Early discussion of M&V pre-measurements. It is important to discuss M&V options and DGS preferred approach for each ECM early in the IGA to insure sufficient time to collect necessary data to support those options. If this is left to late in the audit period, there may be less flexibility regarding approach or worst case inaccurate savings projections.
- IGA review & approval of fast-track ECM submittals such as lighting and window tinting to support a quick start after contract execution. In this manner, sub-contracts and material purchase orders can be pre-negotiated while DGS is procuring financing and circulating the agreement for approval.



- Pre-determination of site access, laydown areas, permit jurisdictions & their contact information to prepare for construction commencement.

Execution of the GESA Contract – Risks/Opportunities

- IGA review & approval of fast-track ECM submittals such as lighting and window tinting to support a quick start after contract execution. In this manner, sub-contracts and material purchase orders can be pre-negotiated while DGS is procuring financing and circulating the agreement for approval.
- Early submission of preliminary incentive applications to local utilities will ensure available incentives are reserved for this project. At this stage, the project moving forward is relatively assured.
- Coordination and preliminary review of the financing RFP to insure the proposed project is easily financeable from multiple financing companies. Without a good response, DGS could get a higher than expected interest rate or have to re-procure delaying the contract up to six weeks.
- Focused attention & quick turnaround of questions and documentation requests during this period are critical to maintaining momentum. Each financing company has its own preferences that aren't entirely standardized in the financing RFP. TEN is accustomed to working through this drill quickly in order to meet the contract closing deadline.

Construction Kickoff – Risks/Opportunities

- Re-affirm clear and concise communication expectations and document meetings from the onset.
- Begin process of regular schedule review including focus on two-week look ahead schedules to anticipate potential changes or opportunities that may occur as a result of regular customer input.

Submittal Review & Approval as well as Permit submission and approval – Risks/Opportunities

- We will preliminarily prepare as much submittal and permit information as possible in advance of receipt of NTP, however certain design-build submittal and permit activities will have to wait until the contract has been fully executed. Proper scheduling and review will insure this process moves along as quickly as possible.

Installation

- Our project schedule anticipates the seasonal nature of our ECM construction requirements. Through careful coordination with DGS, we may be able to improve upon certain parts of the schedule to yield larger savings earlier during construction.
- One area we have already contemplated involves connections to the existing piping for the free cooling ECM: through a specialized hot tap contractor, we can perform the initial tie-ins to the existing mains regardless of weather, allowing many elements of the work to be performed efficiently well before the system is to be cut over. Additionally, the hot tap process avoids much of the time and expense associated with the usual procedure for draining and re-filling the system.
- The winter timing of the condenser water pump VFD conversions ensures continued operation of the plant.
- Upon direction by DGS, we can investigate the potential for strategic changes to the condenser water loop which could make possible replacement of failing sections of the condenser water main in winter while still satisfying the cooling load.
- As many of our team have worked in the Capitol previously, we are accustomed to the seasonality of the legislative calendar and will plan installation work accordingly.
- Due to our breadth of expertise and sizable energy-specific team focus within the Pennsylvania region - including local management - TEN is able to quickly address issues that occur during construction. Our track record as a nimble ESCO demonstrates our ability to take advantage of opportunities which improve project outcomes when agreed to by both parties.

Start-up, equipment testing

- Where factory representative start-up, testing and balancing is required, it is critical to schedule these resources sufficiently in advance in or to maintain the schedule and resultant final commissioning and ECM acceptance.



Commissioning, training and post M&V measurements

- Efficient completion of post construction Act-129 submittals and required local utility inspections will expedite turn-around of incentives.
- At project completion, we can also submit the project for permanent capacity reduction payments through PJM. Optimal timing of the application can maximize the value of this market based program.

We at TEN value past experience which has proven that challenges and risks, such as may prevail here, are positively impacted by good and frequent communication between TEN, DGS, building occupants, our subcontractors & material suppliers, local utilities, permitting jurisdictions such as L&I, DEP and Hartford Insurance. Weekly subcontractor and bi-weekly client meetings address the big issues efficiently; however, we find that brief daily reports through our automated cTEN application are equally important to our clients, in the ongoing collaboration which produces the most refined and successful results.

Additional Opportunities for Innovation / Schedule Compression / Flexibility

Following are ways DGS and TEN could work together to compress the project schedule, if desired.

- Construction kick-off meeting details will be addressed during the Investment Grade Audit to expedite movement to final design and construction after the GESA has been fully executed.
- Prior to GESA contract execution, TEN plans to pre-negotiate sub-contracts, material purchase orders, and disposal / recycling agreements for solutions not requiring final design so they can immediately be issued upon receipt of the sign contract.
- Periodic material deliveries and installation can begin within two weeks of GESA contract execution (for readily available lighting material).
- Contemplated installation contractors can stage material and remove waste daily to an offsite location minimizing impact to site storage areas.
- Similarly, recycling will be structured for frequent pickups, however it is preferred that the lamps remain on site until removed by the recycling company to maintain the chain of custody.
- In the event construction needs to be accelerated we have verified that a potential installation contractor has 18-20 cleared installation personnel and is able to commit 12 to this project with the ability to add more, if needed.
- Concurrent commissioning and measurement & verification activities can be employed near project completion to compress the installation schedule as well.



4. Qualification Forms (2.5-4)

Qualified Personnel

The Efficiency Network is comprised of professional staff, most of whom have been active in energy management for more than twenty years. TEN has a staff of experienced professionals who are very familiar with the unique aspects of designing and constructing Energy Services Projects in numerous settings and have collective project experience more than \$700 million. TEN takes a comprehensive approach to designing and constructing energy savings projects and performs all energy engineering and construction management in-house. In certain instances, where a unique skill set is required we will augment the project team with retained professionals overseen by our Professional Engineering managers. This comprehensive, in-house approach is one way we proactively utilize integrated project delivery and lean construction concepts inherent to our automated energy efficiency platform to deliver exceptional value to our clients. The core team identified section 2.5.1 was selected from TEN's current staffing of 35 employees specifically dedicated to our energy efficiency business. Should additional resources or specialized experience be required, TEN can easily draw from these additional employees or retained professionals as may be needed. All of the core project team members are physically located in our Pittsburgh and Philadelphia locations.

Offeror's Experience

TEN's team has significant industry-leading experience working with organizations to implement energy conservation and technology modernization projects over the past 25+ years, specifically including turnkey lighting, building envelope, HVAC systems, building automation, water conservation, and central plant solutions. This experience, especially with our numerous state and municipal customers, provides TEN with a wealth of understanding of the DGS's goals and expectations toward implementing sustainable, energy conservation upgrades. Further, our collective longevity in the ESCO marketplace leaves us keenly aware of the benefits of clear and concise operations and maintenance manuals along with initial and ongoing training to assist staff with the long-term operation of their facilities.

Chilled Water Plant Specialist

TEN has engaged Hemant Mehta, PE from the WM Group to augment our team in optimizing the operation of Capitol Complex Chilled Water Loop and Plant. Hemant is nationally renowned in this area of expertise. While we have worked with Hemant on successful solutions for Temple University, his specific background with the Capitol Complex will be extremely useful. Hemant completed the 2003 hydraulic study of the chilled water systems that identified the opportunity to optimize system pumping and improve chilled water system temperature differential which led to significant annual savings. Hemant and Chris Hainsworth have identified new opportunities which will yield a similar magnitude of savings today.

Continuity

TEN has the unique opportunity to bring the team experience of multiple projects to benefit the Capitol Complex current undertaking. We are currently implementing the Small GESA #1 project which encompasses thermal solutions at the Main Capitol, East Wing, Judicial Center and Ryan Office Building as well as comprehensive LED lighting upgrades within the Keystone and PJC buildings. The energy modeling, savings and load reductions directly impact the current RFQ ECMs and there is a great opportunity for continuity of design and construction among both projects. Further, most of the same team members who built the previous Capitol Complex GESA project





(excluding L&I and H&W) now reside at TEN which offers an immediate understanding of the requirements of carefully working within this environment. In addition to the chilled water plant, that project included the State Capitol, North Office Building, Irvis Building, Ryan Office Building Finance Building and Forum Building. Being on the National Register of Historic Places, it is both an office complex and a museum of Pennsylvania history and government. The complex is populated with art in plaster, tile, paint and glass. The developed ECM's and implementation plans need to preserve and protected this artwork while allowing for continual operation of the buildings for elected officials, administrative staff and the tens of thousands of visitors. ECM's of the previous project included lighting upgrades, lighting controls, EMS/Thermal solutions, water conservation, motors and VFDs DDC system expansion, central chilled water plant upgrade (replaced 2 – 2500 ton chillers), windows, steam traps and piping insulation.

Other notable projects include the following:

Community College of Allegheny County (CCAC)

The Community College of Allegheny County (CCAC) selected TEN to help the south Campus modernize its facilities while achieving ambitious energy efficiency and sustainability goals.

TEN collaborated with campus leaders and stake holders to develop a comprehensive project plan. Major features included modernization of major HVAC systems on a compressed timeline. Additional measures included LED Lighting retrofits, water conservation upgrades, central plant replacement, including boilers, chillers, pumps and domestic hot water system, and retro-commissioning of the air handling units (AHUs) and Unit Ventilators (UVs)HVAC controls expansion.



Dickinson College is a private, residential liberal arts college in Carlisle, PA. TEN recently completed the first phase of this project which consisted of a \$1.8 million-dollar campus LED lighting upgrade project. This initial phase will save the College \$206,000 annually. Additionally, TEN successfully secured more than \$71,000 in utility rebates.

City of Harrisburg LED Street Lighting Conversion

TEN was selected by the City of Harrisburg over 10 other companies (including a shortlist of Johnson Controls, Siemens, and Honeywell) to convert the City's street lighting system to state-of-the-art LEDs. Now substantially complete except for LED lighting being installed on 2 bridges, the project encompasses well over 6,200 fixtures, and took about 6 months to install and commission the cobra heads and decorative fixtures.

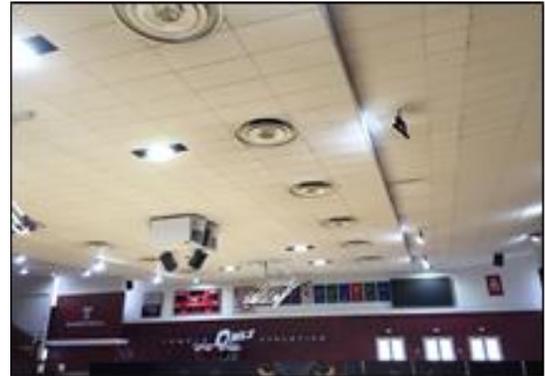




TEN delivered to Harrisburg as part of the project a comprehensive asset inventory audit of the entire street lighting system, loaded onto Harrisburg's GIS system. By the end of this year, all the roadway and street lighting in Pennsylvania's state capital owned by the city, including bridge lighting, will be illuminated with LEDs, including a controls system capable of, at a minimum, dimming fixtures, troubleshooting maintenance, locating each fixture by GPS, and monitoring energy usage from a centralized location.

Temple University

Temple University has launched a multi-phase, three-year energy efficiency project that will modernize their campuses, enhance learning environments and deliver high-impact utility and environmental savings. TEN provides project design, planning, construction and commissioning expertise.



Phase 1 (complete) consists of new control systems that deliver Continuous Automated Commissioning. Energy efficiency measures (lighting, insulation etc.) in 12 building and two parking lots.

Phase 2 (complete) involves upgrades to HVAC systems, sub-metering and optimization software, extension of energy efficiency measures (variable speed drives, lighting, new hot water supplemental heating system) to multiple additional facilities.

Phase 3 (in construction) entails continuing campus-wide energy efficiency and sustainability measures, including major system modernization/upgrades.

Penn State University

TEN was selected to perform a multi-phased five-year design build energy program which began with Beaver Stadium concourse LED lighting upgrade and controls (966 fixtures). Additional projects included Medlar Field, Food Science, Leonard, Thomas Buildings and Abington and Research West Campuses.



Subsequent phases consisted of interior and exterior LED lighting upgrades, controls upgrade, cooling tower VFD upgrade, boiler replacement, RTU unit replacement, controls expansion, domestic hot water upgrade and HVAC replacement.

Management Team

In addition to the TEN's core project team outlined in Section 2.5.1, Project Management Team Overview, TEN's executive team is outlined below. All of TEN's personnel have extensive experience with GESA projects.

Troy Geanopulos, Chief Executive Officer

Mr. Geanopulos is responsible for assisting in TEN's business development efforts and strategy to address client needs and objectives. He has a valuable combination of skills and experience, which enables him to understand and discuss customer contractual needs and requirements, and extensive hands-on experience in recognizing customer project strategic through a vast career in energy efficiency. Mr. Geanopulos has over 20 years of energy related experience and has been employed with TEN for 5.5 years.



Mr. Geanopulos has founded and co-founded several energy efficiency companies over the past 20+ years, including TEN. The foundation for each of these companies has been customer satisfaction, performance, and value. At TEN, Mr. Geanopulos leads the company's strategic direction and the executive management team.

Education

- BA Dickinson College, Carlisle, PA
- Tepper School of Business – Entrepreneurial Leadership Forum
- Member, U.S. Green Building Council
- Member, Green Building Alliance

Rob Campbell, President and Chief Operating Officer

Mr. Campbell will manage the customer's goal development and strategic planning. His primary responsibilities will involve coordination and assignment of resources and project personnel/subcontractors to ensure construction and engineering audit timelines are met. Mr. Campbell has more than 25 years of energy related experience and has been employed with TEN for 5.5 years.

Education

- Master of Business Administration – Carnegie Mellon University
- B.S. in Mechanical Engineering – University of Toronto
- Professional Engineer, Association of Professional Engineers of Ontario

Christopher Niemiec, Vice President, Finance

Mr. Niemiec is accountable for the accounting and financial operations of TEN, including arranging funding for TEN's energy efficiency projects, the production of periodic financial reports, maintenance of TEN's accounting records, manages a comprehensive set of controls and budgets designed to mitigate risk, enhance the accuracy of TEN's reported financial results, and ensures that reported results comply with the accounting principles or international financial reporting standards. Mr. Niemiec has more than 11 years of energy related experience and has been employed with TEN for 4 years.

Education

- Master of Business Administration – Waynesburg University
- B.S. in Accounting – Waynesburg University
- Member, Construction Financial Managers Association.
- Member, Pittsburgh CFO Roundtable

United Steelworker Headquarters LEED Certification

The United Steelworkers (USW) proudly represents 1.2 million members and retirees who work in nearly every industry. The USW works for working families around the world. USW members are community, workplace and government leaders.

The USW pledged to improve the efficiency of their headquarters building as part of their Pittsburgh 2030 District commitment. Working with TEN, the USW achieved a 40% reduction in building energy and water consumption, and earned LEED certification. As you would expect, 40% savings encompassed a full complement of ECMs including deep central retrofits and even included elevator modernization.





LEED certification is an official recognition that a project complies with the requirements prescribed within the LEED rating systems as created and maintained by the U.S. Green Building Council - the LEED certification program is administered by the Green Business Certification Inc. The United Steelworkers Headquarters (USW) in Pittsburgh, PA was officially recognized as LEED Certified in April 2017. TEN aided USW to achieve a score of 44, which grants them the ‘Certified’ label in the Existing Buildings: Operations and Maintenance program. USW accomplished points in all categories which included; sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovation in operations.

Financial Ability

TEN has provided their 2016 audited financials at the end of this document.

TEN’s bonding program is provided by Great American Insurance Company which is A+ rated by A.M. Best. In the event of an award, TEN has reserved sufficient capacity for this project under its current program. Our current individual project limit is \$15 million dollars and our aggregate project limit is \$30 million dollars.

	Project Guarantee History	Dollar Amount
1.	United Steelworkers Headquarters	\$3,552,748
2.	Community College of Allegheny County	\$3,761,442
3.	Eastern Gateway Community College	\$1,719,014
4.	Neshannock Township School District	\$1,719,000
5.	Washington College	\$1,047,000

Offeror’s Resource Availability (Capacity)

(Average of the last 3 years gross sales) minus (the average of next 3 years committed backlog).
 \$13.2 million – \$10.1 million = \$3.1 million

It should be noted that TEN continues to grow and has added eight (8) qualified personnel in the last year. Further, final completion of the Small GESA #1 will occur about a month prior to anticipated construction kickoff for this project. TEN is confident it has the resources and qualified personnel to successfully deliver this project (GESA 2017-1) for the Commonwealth.

Statement of Readiness and Commitment of Resources

This serves as TEN’s 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.

Offeror’s Notification of Default and Debarment

TEN has never had a contract default or has been debarred since its existence.

Key Subcontractors

TEN has pre-qualified the following design firms and sub-contractors for DGS’s consideration on this project. We have worked with WM Group, JCI, Automated Logic, Huckestein Mechanical and Hunt Consulting on numerous other projects.

- WM Group – Chilled Water Plant & Loop Optimization (IGA Design & Construction/Commissioning)
- JCI or Automated Logic – Controls (Construction)
- Huckestein Mechanical – Mechanical (Construction)
- Hunt Consulting – Lighting Installation (Construction)
- Zavorski Masonry Restoration – Building Sealing (Construction)
- Solar Comfort – Window Tinting (Construction)



Name of Subcontractor: WM Group Engineers							
1	Experience with GESA Projects Greater than \$5 million						
(a)	<table border="1"> <tr> <td>Date: 2003 and 2005</td> <td>Location: Pennsylvania State Capitol Building Complex, Harrisburg, PA</td> </tr> <tr> <td>Owner/Owner Contact: Department of General Services</td> <td>Project Amount: \$825,000</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Hydraulic study of the chilled water systems serving the Capitol Building Complex was completed in 2003. Main items identified by the study for improvement were optimization of the system pumping and improvement of chilled water system temperature differential. In 2005, construction documents were completed to implement the recommendations from the study. The project reduced the annual energy cost by \$320,000 with two years payback.</td> </tr> </table>	Date: 2003 and 2005	Location: Pennsylvania State Capitol Building Complex, Harrisburg, PA	Owner/Owner Contact: Department of General Services	Project Amount: \$825,000	Description/Completed as Originally Scheduled: Hydraulic study of the chilled water systems serving the Capitol Building Complex was completed in 2003. Main items identified by the study for improvement were optimization of the system pumping and improvement of chilled water system temperature differential. In 2005, construction documents were completed to implement the recommendations from the study. The project reduced the annual energy cost by \$320,000 with two years payback.	
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1	Experience with GESA Projects Greater than \$5 million						
(b)	<table border="1"> <tr> <td>Date: 2011, 2012, and 2015</td> <td>Location: Shippensburg University, Shippensburg, Pennsylvania</td> </tr> <tr> <td>Owner/Owner Contact: Shippensburg University, Lance Bryson, Associate Vice President for Facilities</td> <td>Project Amount: \$32 Million</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: WM Group was retained to design a new efficient, reliable, cost-effective central cooling and heating system for the campus. Basis of design study was completed in 2011, followed by the heating cooling design in 2012, and construction in 2015. The project reduced the Energy Utilization index by 32%, electrical consumption by 12% and peak electrical demand by 4%. All this reduction where for the year with an 11% increase in cooling degree days.</td> </tr> </table>	Date: 2011, 2012, and 2015	Location: Shippensburg University, Shippensburg, Pennsylvania	Owner/Owner Contact: Shippensburg University, Lance Bryson, Associate Vice President for Facilities	Project Amount: \$32 Million	Description/Completed as Originally Scheduled: WM Group was retained to design a new efficient, reliable, cost-effective central cooling and heating system for the campus. Basis of design study was completed in 2011, followed by the heating cooling design in 2012, and construction in 2015. The project reduced the Energy Utilization index by 32%, electrical consumption by 12% and peak electrical demand by 4%. All this reduction where for the year with an 11% increase in cooling degree days.	
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1	Experience with GESA Projects Greater than \$5 million						
(c)	<table border="1"> <tr> <td>Date: June 2013</td> <td>Location: Purdue University, West Lafayette, Indiana</td> </tr> <tr> <td>Owner/Owner Contact: Purdue University, Dan Schuster, Plant Manager</td> <td>Project Amount: -</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: A number of different projects were successfully completed at Purdue University. Re-engineering of the Wade Plant Chilled Water System, Side Stream Sand Filter for Chilled Water System, Wade Condenser Water Reset, Design services for Free and Pre Cooling System at the Satellite Plant Chilled Water System, Re-engineering of the Satellite Plant Chilled Water System, Evaluation of the Causes of High Simultaneous Heating and Cooling and Poor CHW Delta T, BIRK Controls Optimization Implementation, Panel Conversions/Upgrades, and Controls and Programming Upgrades for HEAV, ME, MTHW, CARY, WTHR, FORD. The project reduced the annual energy cost by over Three million a year and reduced peak power by over one Mega Watt.</td> </tr> </table>	Date: June 2013	Location: Purdue University, West Lafayette, Indiana	Owner/Owner Contact: Purdue University, Dan Schuster, Plant Manager	Project Amount: -	Description/Completed as Originally Scheduled: A number of different projects were successfully completed at Purdue University. Re-engineering of the Wade Plant Chilled Water System, Side Stream Sand Filter for Chilled Water System, Wade Condenser Water Reset, Design services for Free and Pre Cooling System at the Satellite Plant Chilled Water System, Re-engineering of the Satellite Plant Chilled Water System, Evaluation of the Causes of High Simultaneous Heating and Cooling and Poor CHW Delta T, BIRK Controls Optimization Implementation, Panel Conversions/Upgrades, and Controls and Programming Upgrades for HEAV, ME, MTHW, CARY, WTHR, FORD. The project reduced the annual energy cost by over Three million a year and reduced peak power by over one Mega Watt.	
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1	Experience with GESA Projects Greater than \$5 million						
(d)	<table border="1"> <tr> <td>Date: February 2015</td> <td>Location: Merck, Rahway, New Jersey</td> </tr> <tr> <td>Owner/Owner Contact: Merck and Company, Brenden Lunney, Site Contract Administrator</td> <td>Project Amount: -</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: A couple of projects were successfully completed at the Merck Rahway site. Engineering Services Related to NJ Clean Energy Fund Application for Installation of a Condensing Turbine, and Engineering Services for cost estimating and sensitivity analysis of steam condensing turbine generator. The project reduced energy cost by five million dollars per year with Three years simple payback.</td> </tr> </table>	Date: February 2015	Location: Merck, Rahway, New Jersey	Owner/Owner Contact: Merck and Company, Brenden Lunney, Site Contract Administrator	Project Amount: -	Description/Completed as Originally Scheduled: A couple of projects were successfully completed at the Merck Rahway site. Engineering Services Related to NJ Clean Energy Fund Application for Installation of a Condensing Turbine, and Engineering Services for cost estimating and sensitivity analysis of steam condensing turbine generator. The project reduced energy cost by five million dollars per year with Three years simple payback.	
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Owner/Owner Contact: Merck and Company, Brenden Lunney, Site Contract Administrator	Project Amount: -						
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2	Subcontractor's Superintendent's Qualifications (4-person limit)
(a)	<p>Name: Hemant Mehta, PE (Principal)</p> <p>Project Responsibilities: Project Manager</p> <p>Time with Firm: 17 years</p> <p>Experience with GESA projects: N/A</p> <p>Educational or technical training: Master of Science in Mechanical Engineering</p> <p>Any other information relevant to the evaluation of the individual:</p> <p>WM Group Engineers PC is led by President and Principal Hemant Mehta, PE. An expert in utility master planning, Mehta has vast experience optimizing the performance and improving efficiencies of existing utility plants, often through simple modifications. His recommendations have enabled many facilities to save millions in capital and operating costs. Mehta has managed more than 100 central utility projects throughout the world during his 35-year career. Mr. Mehta has worked on the Pennsylvania State Capitol Building Complex and is familiar with the operation. During the recent site visit he has already identified many opportunities to save energy.</p> <p>Presentations and Publications:</p> <p>“System Optimization: Is fear holding us back?” Hemant Mehta, PE, WM Group Engineers, for District Energy – 1st Quarter 2011.</p> <p>“Band-Aid Solutions' Often Cause More Problems without Overall Systems Review” Hemant Mehta, PE, and Christopher TSO, PE, WM Group Engineers.</p> <p>“Chilled Water Delta T Study” Hemant Mehta, PE, WM Group Engineers.</p> <p>“Consulting in the District Energy Field: Creative Thinking Leads to Novel Solutions” Hemant Mehta, PE, WM Group Engineers.</p> <p>“How to Convert and Optimize Primary/Secondary Pumping Systems to Variable Flow Primary Systems” Hemant Mehta, PE, WM Group Engineers, for 2008 IDEA International District Cooling Conference, Dubai.</p> <p>“Rules of Thumb: How They Change with the Changes in Technology” Hemant Mehta, PE, WM Group Engineers.</p> <p>“The Cost of Using 1970s Era Design Concepts and ‘FEAR’ in Chilled Water Systems” Hemant Mehta, PE, WM Group Engineers, for 2008 IDEA Campus Conference, Boston.</p> <p>“Yale University District Cooling Systems Capacity & Operations Improvements” Hemant Mehta, PE, WM Group Engineers.</p> <p>“Use of Operational Data for Diagnosing Plant Symptoms and Optimizing Plant Operation at no cost” Hemant Mehta, P. E., WM Group Engineers</p>



Name of Subcontractor: Johnson Controls, Inc.							
1	Experience with GESA Projects Greater than \$5 million						
(a)	<table border="1"> <tr> <td>Date: 2003-2018</td> <td>Location: Tennessee</td> </tr> <tr> <td>Owner/Owner Contact: State of Tennessee</td> <td>Project Amount: \$25M +</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Energy initiatives and projects within the following departments over the defined time period: Department of Correction, Environment and Conservation, Mental Health, Children Services, Commerce and Insurance, Agriculture, Labor, Safety, Military, Transportation, Revenue and the Tennessee Bureau of Investigation.</td> </tr> </table>	Date: 2003-2018	Location: Tennessee	Owner/Owner Contact: State of Tennessee	Project Amount: \$25M +	Description/Completed as Originally Scheduled: Energy initiatives and projects within the following departments over the defined time period: Department of Correction, Environment and Conservation, Mental Health, Children Services, Commerce and Insurance, Agriculture, Labor, Safety, Military, Transportation, Revenue and the Tennessee Bureau of Investigation.	
Date: 2003-2018	Location: Tennessee						
Owner/Owner Contact: State of Tennessee	Project Amount: \$25M +						
Description/Completed as Originally Scheduled: Energy initiatives and projects within the following departments over the defined time period: Department of Correction, Environment and Conservation, Mental Health, Children Services, Commerce and Insurance, Agriculture, Labor, Safety, Military, Transportation, Revenue and the Tennessee Bureau of Investigation.							
1	Experience with GESA Projects Greater than \$5 million						
(b)	<table border="1"> <tr> <td>Date: 2016+</td> <td>Location: Baltimore, Maryland</td> </tr> <tr> <td>Owner/Owner Contact: Baltimore County Public Schools</td> <td>Project Amount: \$45M</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Upgraded DDC controls throughout district, HVAC equipment, lighting, building envelope.</td> </tr> </table>	Date: 2016+	Location: Baltimore, Maryland	Owner/Owner Contact: Baltimore County Public Schools	Project Amount: \$45M	Description/Completed as Originally Scheduled: Upgraded DDC controls throughout district, HVAC equipment, lighting, building envelope.	
Date: 2016+	Location: Baltimore, Maryland						
Owner/Owner Contact: Baltimore County Public Schools	Project Amount: \$45M						
Description/Completed as Originally Scheduled: Upgraded DDC controls throughout district, HVAC equipment, lighting, building envelope.							
1	Experience with GESA Projects Greater than \$5 million						
(c)	<table border="1"> <tr> <td>Date: 2016</td> <td>Location: Harrisburg, PA</td> </tr> <tr> <td>Owner/Owner Contact: Pennsylvania State Police</td> <td>Project Amount: \$5M+</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Lighting, controls, electrical.</td> </tr> </table>	Date: 2016	Location: Harrisburg, PA	Owner/Owner Contact: Pennsylvania State Police	Project Amount: \$5M+	Description/Completed as Originally Scheduled: Lighting, controls, electrical.	
Date: 2016	Location: Harrisburg, PA						
Owner/Owner Contact: Pennsylvania State Police	Project Amount: \$5M+						
Description/Completed as Originally Scheduled: Lighting, controls, electrical.							
1	Experience with GESA Projects Greater than \$5 million						
(d)	<table border="1"> <tr> <td>Date: 2016</td> <td>Location: Hershey, PA</td> </tr> <tr> <td>Owner/Owner Contact: Penn State Health</td> <td>Project Amount: \$1M+</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Central Plant chilled water optimization</td> </tr> </table>	Date: 2016	Location: Hershey, PA	Owner/Owner Contact: Penn State Health	Project Amount: \$1M+	Description/Completed as Originally Scheduled: Central Plant chilled water optimization	
Date: 2016	Location: Hershey, PA						
Owner/Owner Contact: Penn State Health	Project Amount: \$1M+						
Description/Completed as Originally Scheduled: Central Plant chilled water optimization							
2	Subcontractor's Superintendent's Qualifications (4-person limit)						
(a)	<p>Name: Tom Raney</p> <p>Project Responsibilities: Operations Manager</p> <p>Time with Firm: 35 Years</p> <p>Experience with GESA projects: 20+</p> <p>Educational or technical training: JCI BAS/Equipment, energy, and project management training</p> <p>Any other information relevant to the evaluation of the individual:</p> <p>Name: Matt Lodish</p> <p>Project Responsibilities: Project Team Leader</p>						



<p>Time with Firm: 13 Years</p> <p>Experience with GESA projects: 5+</p> <p>Educational or technical training: JCI BAS/Equipment, energy, and project management training</p> <p>Any other information relevant to the evaluation of the individual:</p>
<p>Statement of Readiness and Commitment of Resources</p> <p>I, <u>Don Marangoni</u></p> <p>Confirm the person(s) identified in this RFP are available and will be committed to the Project for the time-period(s) referenced in the attached RFP project schedule.</p>
<p>Subcontractor's Workman's Compensation Experience Modification Rating</p> <p>2014: 0.46 2015: 0.47 2016: 0.52</p>



Name of Subcontractor: Zavorski Masonry Restoration, Inc.							
1	Experience with GESA Projects Greater than \$5 million						
(a)	<table border="1"> <tr> <td>Date: 12/16</td> <td>Location: Temple University Main Campus Liacouras Parking Garage</td> </tr> <tr> <td>Owner/Owner Contact: Temple University Rudy King</td> <td>Project Amount: \$95,700</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Removing existing joint sealant at garage control and expansion joints, installing new backer rod and resealing all joints using a high-grade urethane sealant.</td> </tr> </table>	Date: 12/16	Location: Temple University Main Campus Liacouras Parking Garage	Owner/Owner Contact: Temple University Rudy King	Project Amount: \$95,700	Description/Completed as Originally Scheduled: Removing existing joint sealant at garage control and expansion joints, installing new backer rod and resealing all joints using a high-grade urethane sealant.	
Date: 12/16	Location: Temple University Main Campus Liacouras Parking Garage						
Owner/Owner Contact: Temple University Rudy King	Project Amount: \$95,700						
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1	Experience with GESA Projects Greater than \$5 million						
(b)	<table border="1"> <tr> <td>Date: 9/16</td> <td>Location: Mayer Sulzberger Middle School Philadelphia, PA</td> </tr> <tr> <td>Owner/Owner Contact: School District of Philadelphia GC – United States Roofing Gerard Faia – 610-272-6600</td> <td>Project Amount: \$375,000</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Mortar joint repointing, joint sealant replacement, waterproofing.</td> </tr> </table>	Date: 9/16	Location: Mayer Sulzberger Middle School Philadelphia, PA	Owner/Owner Contact: School District of Philadelphia GC – United States Roofing Gerard Faia – 610-272-6600	Project Amount: \$375,000	Description/Completed as Originally Scheduled: Mortar joint repointing, joint sealant replacement, waterproofing.	
Date: 9/16	Location: Mayer Sulzberger Middle School Philadelphia, PA						
Owner/Owner Contact: School District of Philadelphia GC – United States Roofing Gerard Faia – 610-272-6600	Project Amount: \$375,000						
Description/Completed as Originally Scheduled: Mortar joint repointing, joint sealant replacement, waterproofing.							
1	Experience with GESA Projects Greater than \$5 million						
(c)	<table border="1"> <tr> <td>Date: 8/15</td> <td>Location: 1920 Commons Building University of Pennsylvania</td> </tr> <tr> <td>Owner/Owner Contact: University of Pennsylvania CVM Engineers – 610-989-3800</td> <td>Project Amount: \$59,600</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Replace joints sealants at metal wall panels. Completed on schedule</td> </tr> </table>	Date: 8/15	Location: 1920 Commons Building University of Pennsylvania	Owner/Owner Contact: University of Pennsylvania CVM Engineers – 610-989-3800	Project Amount: \$59,600	Description/Completed as Originally Scheduled: Replace joints sealants at metal wall panels. Completed on schedule	
Date: 8/15	Location: 1920 Commons Building University of Pennsylvania						
Owner/Owner Contact: University of Pennsylvania CVM Engineers – 610-989-3800	Project Amount: \$59,600						
Description/Completed as Originally Scheduled: Replace joints sealants at metal wall panels. Completed on schedule							
1	Experience with GESA Projects Greater than \$5 million						
(d)	<table border="1"> <tr> <td>Date: Current</td> <td>Location: Keystone Building – Harrisburg PA</td> </tr> <tr> <td>Owner/Owner Contact: State of Pennsylvania US Roofing – Hans Stitzinger 610-272-6600</td> <td>Project Amount: \$412,100</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Removing and resetting limestone coping stones. Resealing stone to stone joints and stone to metal flashing joints.</td> </tr> </table>	Date: Current	Location: Keystone Building – Harrisburg PA	Owner/Owner Contact: State of Pennsylvania US Roofing – Hans Stitzinger 610-272-6600	Project Amount: \$412,100	Description/Completed as Originally Scheduled: Removing and resetting limestone coping stones. Resealing stone to stone joints and stone to metal flashing joints.	
Date: Current	Location: Keystone Building – Harrisburg PA						
Owner/Owner Contact: State of Pennsylvania US Roofing – Hans Stitzinger 610-272-6600	Project Amount: \$412,100						
Description/Completed as Originally Scheduled: Removing and resetting limestone coping stones. Resealing stone to stone joints and stone to metal flashing joints.							
2	Subcontractor's Superintendent's Qualifications (4-person limit)						
(a)	<p>Name: Tom Bissinger</p> <p>Project Responsibilities: Project Foreman</p> <p>Time with Firm: 4 years</p> <p>Experience with GESA projects:</p>						



	<p>Educational or technical training: Union Mason</p> <p>Any other information relevant to the evaluation of the individual: Currently the foreman on the Keystone Building in Harrisburg. Overseeing daily operation and managing of 5 men. Handles material and equipment purchasing for this project.</p>
	<p>Name: William Roeder</p> <p>Project Responsibilities: Project Foreman</p> <p>Time with Firm: 4 years</p> <p>Experience with GESA projects:</p> <p>Educational or technical training: Union Pointer / Caulker / Cleaner</p> <p>Any other information relevant to the evaluation of the individual: William has managed several of our largest projects in the past 2 years which all have finished on time and within budget.</p>
	<p>Name: John Quatrochi</p> <p>Project Responsibilities: Project Foreman</p> <p>Time with Firm: 5 years</p> <p>Experience with GESA projects:</p> <p>Educational or technical training: Union Pointer/Caulker/ Cleaner</p> <p>Any other information relevant to the evaluation of the individual: John has been a union caulker for over 25 years. He has a vast knowledge of caulking and waterproofing as well as the masonry side of our business.</p>
	<p>Name: Jason Keller</p> <p>Project Responsibilities: Project Foreman</p> <p>Time with Firm: 3 years</p> <p>Experience with GESA projects:</p> <p>Educational or technical training: Union Pointer / Caulker / Cleaner</p> <p>Any other information relevant to the evaluation of the individual: Jason is a well-rounded worker with vast experience in the caulking field. He takes a big interest in keeping our workers up to date on the latest materials and associated tools and equipment.</p>
3	<p>Statement of Readiness and Commitment of Resources</p> <p>(a) I, <u>Jack Zavorski</u> Confirm the person(s) identified in this RFP are available and will be committed to the Project for the time-period(s) referenced in the attached RFP project schedule.</p>
4	<p>Subcontractor's Workman's Compensation Experience Modification Rating</p> <p>(a) 2014: .939</p>



	2015: .798 2016: .802
5	Notification of Default or Debarment
(a)	Provide a listing including: N/A Owner: Project: Date and explanation of any contract default or debarment within the last five years:



Name of Subcontractor: Hunt Consulting	
1 (a)	Experience with GESA Projects Greater than \$5 million
	Date: TO BE COMPLETE 12/2017 Location: WASHINGTON DC (4 BLDGS)
	Owner/Owner Contact: AMERESCO – PRIME US GSA - CUSTOMER Project Amount: 8.77M
	Description/Completed as Originally Scheduled: TURNKEY LIGHTING DESIGN AND INSTALLATION
1 (b)	Experience with GESA Projects Greater than \$5 million
	Date: COMPLETED 2009 Location: HARRISBURG, PA (2 BLDGS)
	Owner/Owner Contact: CLT – PRIME PA DGS - CUSTOMER Project Amount: 960K
	Description/Completed as Originally Scheduled: LIGHTING INSTALLATION IN PA DGS CAPITOL COMPLEX BUILDINGS
1 (c)	Experience with GESA Projects Greater than \$5 million
	Date: COMPLETED 2013 Location: VARIOUS LOCATIONS, STATE OF MARYLAND
	Owner/Owner Contact: ENERGY SYSTEMS GROUP – PRIME MD STATE HIGHWAY – CUSTOMER Project Amount: 4.69M
	Description/Completed as Originally Scheduled: TURNKEY LIGHTING DESIGN AND INSTALLATION
1 (d)	Experience with GESA Projects Greater than \$5 million
	Date: COMPLETED 2014 Location: BALTIMORE, MD
	Owner/Owner Contact: CONSTELLATION – PRIME CITY OF BALTIMORE - CUSTOMER Project Amount: 3.11M
	Description/Completed as Originally Scheduled: TURNKEY LIGHTING DESIGN AND INSTALLATION
2 (a)	Subcontractor's Superintendent's Qualifications (4-person limit)
	Name: HENRY HUNT, CLEP, CLMC
	Project Responsibilities: PM, TECHNICAL
	Time with Firm: 17+
	Experience with GESA projects: 17+ YEARS IN ENERGY EFFICIENT LIGHTING UPGRADE PROJECTS
	Educational or technical training: JOURNEYMAN ELEC, CLEP, CLMC, OSHA



	<p>Any other information relevant to the evaluation of the individual:</p>
	<p>Name: MARK DAVIS</p> <p>Project Responsibilities: ME / QC</p> <p>Time with Firm: 10+</p> <p>Experience with GESA projects: 30YEARS MASTER ELECTRICIAN, 15+ YEARS IN ENERGY EFFICIENT LIGHTING UPGRADE PROJECTS</p> <p>Educational or technical training: MASTER ELEC, OSHA 30, PPE TRAINER</p> <p>Any other information relevant to the evaluation of the individual:</p>
	<p>Name: WILLIAM RISINGER</p> <p>Project Responsibilities: SITE SUPERVISOR</p> <p>Time with Firm: 6+</p> <p>Experience with GESA projects: 6+ YEARS IN ENERGY EFFICIENT LIGHTING UPGRADE PROJECTS</p> <p>Educational or technical training: JOURNEYMAN ELEC, OSHA</p> <p>Any other information relevant to the evaluation of the individual:</p>
3	<p>Statement of Readiness and Commitment of Resources</p> <p>(a) I, <u>Henry Hunt</u></p> <p>Confirm the person(s) identified in this RFP are available and will be committed to the Project for the time-period(s) referenced in the attached RFP project schedule.</p>
4	<p>Subcontractor's Workman's Compensation Experience Modification Rating</p> <p>(a) 2014: 1.05 2015: .76 2016: .74</p>
5	<p>Notification of Default or Debarment N/A</p> <p>(a) Provide a listing including:</p> <p>Owner: Project: Date and explanation of any contract default or debarment within the last five years:</p>



Name of Subcontractor: Automated Logic Contracting Services							
1	Experience with GESA Projects Greater than \$5 million						
(a)	<table border="1"> <tr> <td>Date: 2004</td> <td>Location: 1871 Old Main Drive Shippensburg, PA. 17257</td> </tr> <tr> <td>Owner/Owner Contact: Shippensburg University / William Lense</td> <td>Project Amount: Total project amount (14M) Controls portion (960K)</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Retrofit exiting pneumatic and outdated DDC HVAC controls to new DDC controls</td> </tr> </table>	Date: 2004	Location: 1871 Old Main Drive Shippensburg, PA. 17257	Owner/Owner Contact: Shippensburg University / William Lense	Project Amount: Total project amount (14M) Controls portion (960K)	Description/Completed as Originally Scheduled: Retrofit exiting pneumatic and outdated DDC HVAC controls to new DDC controls	
Date: 2004	Location: 1871 Old Main Drive Shippensburg, PA. 17257						
Owner/Owner Contact: Shippensburg University / William Lense	Project Amount: Total project amount (14M) Controls portion (960K)						
Description/Completed as Originally Scheduled: Retrofit exiting pneumatic and outdated DDC HVAC controls to new DDC controls							
1	Experience with GESA Projects Greater than \$5 million						
(b)	<table border="1"> <tr> <td>Date: April 2006</td> <td>Location: Rachel Carson State Office Building 400 Market Street Harrisburg, PA.170101</td> </tr> <tr> <td>Owner/Owner Contact: PA Department of General Services / Nike Clark</td> <td>Project Amount: Total Project Cost (8.3M) Control Cost (204K)</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Retrofit obsolete building control system to the new Web-Based state of the arts control system.</td> </tr> </table>	Date: April 2006	Location: Rachel Carson State Office Building 400 Market Street Harrisburg, PA.170101	Owner/Owner Contact: PA Department of General Services / Nike Clark	Project Amount: Total Project Cost (8.3M) Control Cost (204K)	Description/Completed as Originally Scheduled: Retrofit obsolete building control system to the new Web-Based state of the arts control system.	
Date: April 2006	Location: Rachel Carson State Office Building 400 Market Street Harrisburg, PA.170101						
Owner/Owner Contact: PA Department of General Services / Nike Clark	Project Amount: Total Project Cost (8.3M) Control Cost (204K)						
Description/Completed as Originally Scheduled: Retrofit obsolete building control system to the new Web-Based state of the arts control system.							
1	Experience with GESA Projects Greater than \$5 million						
(c)	<table border="1"> <tr> <td>Date: November 2006</td> <td>Location: East Stroudsburg University 200 Prospect St, East Stroudsburg, PA.18301</td> </tr> <tr> <td>Owner/Owner Contact: East Stroudsburg University / Scott Heinrick</td> <td>Project Amount: Total Project Cost (9.1M) Controls Cost (645K)</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Update to new Web-based control system</td> </tr> </table>	Date: November 2006	Location: East Stroudsburg University 200 Prospect St, East Stroudsburg, PA.18301	Owner/Owner Contact: East Stroudsburg University / Scott Heinrick	Project Amount: Total Project Cost (9.1M) Controls Cost (645K)	Description/Completed as Originally Scheduled: Update to new Web-based control system	
Date: November 2006	Location: East Stroudsburg University 200 Prospect St, East Stroudsburg, PA.18301						
Owner/Owner Contact: East Stroudsburg University / Scott Heinrick	Project Amount: Total Project Cost (9.1M) Controls Cost (645K)						
Description/Completed as Originally Scheduled: Update to new Web-based control system							
1	Experience with GESA Projects Greater than \$5 million						
(d)	<table border="1"> <tr> <td>Date: October 2007</td> <td>Location: PA State Office Complex Buildings NOB/SOB/Finance/Forum/East Wing</td> </tr> <tr> <td>Owner/Owner Contact: PA Department of General Services Nike Clark</td> <td>Project Amount: Don't have Total Cost, Controls Cost (577K)</td> </tr> <tr> <td colspan="2">Description/Completed as Originally Scheduled: Retrofit obsolete building controls to new Web-Based state of the arts control system</td> </tr> </table>	Date: October 2007	Location: PA State Office Complex Buildings NOB/SOB/Finance/Forum/East Wing	Owner/Owner Contact: PA Department of General Services Nike Clark	Project Amount: Don't have Total Cost, Controls Cost (577K)	Description/Completed as Originally Scheduled: Retrofit obsolete building controls to new Web-Based state of the arts control system	
Date: October 2007	Location: PA State Office Complex Buildings NOB/SOB/Finance/Forum/East Wing						
Owner/Owner Contact: PA Department of General Services Nike Clark	Project Amount: Don't have Total Cost, Controls Cost (577K)						
Description/Completed as Originally Scheduled: Retrofit obsolete building controls to new Web-Based state of the arts control system							
2	Subcontractor's Superintendent's Qualifications (4-person limit)						
(a)	<p>Name: Randy Robertson</p> <p>Project Responsibilities: Project Manager</p> <p>Time with Firm: 10 Years</p> <p>Experience with GESA projects: Yes</p> <p>Educational or technical training: 25 years in HVAC controls business, Project Management training, JCI and ALC programming training.</p> <p>Any other information relevant to the evaluation of the individual:</p> <p>Name: Dave Drake</p>						



	<p>Project Responsibilities: Project Manager</p> <p>Time with Firm: 11 Years</p> <p>Experience with GESA projects: Yes</p> <p>Educational or technical training: 30 years in HVAC controls business, Project Management training, several control system programing trainings.</p> <p>Any other information relevant to the evaluation of the individual:</p>
	<p>Name: Brad Thal</p> <p>Project Responsibilities: Project Manager</p> <p>Time with Firm: 10 Years</p> <p>Experience with GESA projects: Yes</p> <p>Educational or technical training: Associated Degree in Mechanical Engineering Technology, Job Specific; ALC Engineering I/O ALC Graphics Submittal, ALC View Builder and Microsoft Projects</p> <p>Any other information relevant to the evaluation of the individual:</p>
	<p>Name: Norm Hockley</p> <p>Project Responsibilities: Project Manager</p> <p>Time with Firm: 14 Years</p> <p>Experience with GESA projects: Yes</p> <p>Educational or technical training: 20 years in controls business. Attended Penn Tech for Electrical technology, Job Specific; Design programming in John Controls, Delta Controls and Automated Logic.</p> <p>Any other information relevant to the evaluation of the individual:</p>
3	<p>Statement of Readiness and Commitment of Resources</p> <p>(a) I, <u>Henry Fernandez</u> Confirm the person(s) identified in this RFP are available and will be committed to the Project for the time-period(s) referenced in the attached RFP project schedule.</p>
4	<p>Subcontractor's Workman's Compensation Experience Modification Rating</p> <p>2014: .628</p> <p>(a) 2015: .641</p> <p>2016: .645</p>
5	<p>Notification of Default or Debarment</p> <p>(a) Provide a listing including:</p> <p>Owner:</p> <p>Project:</p> <p>Date and explanation of any contract default or debarment within the last five years:</p>



Name of Subcontractor: Huckestein Mechanical Services, Inc.	
1 (a)	Experience with GESA Projects Greater than \$5 million
	Date: 2011
	Location: Westmoreland County Courthouse Chiller/AHU
	Owner/Owner Contact: Westmoreland County Commissioners Greg McCloskey 724-830-3955 gmcclosk@co.westmoreland.pa.us
	Project Amount: \$614,945.00
Description/Completed as Originally Scheduled: As part of a multi-million-dollar energy service (ESCO) project which included windows, lighting, and mechanical energy conservation measures (ECMs), Huckestein Mechanical Services, Inc. was selected by Constellation Energy to perform the mechanical scope of the project. The work—replacing air conditioning equipment during cooling season—was accomplished while the Courthouse continued operations, requiring creative project management of on-site resources, delivery schedules, and inventory storage. Crane lifts to remove old and set new equipment occurred on two separate weekends. Meticulous planning resulted in the building being without cooling for only three days, with virtually no disruption to the occupants.	
1 (b)	Experience with GESA Projects Greater than \$5 million
	Date: 2011
	Location: Keystone Oaks School District
	Owner/Owner Contact: Schneider Electric Dave Kramer (412) 680-5743 david.kramer@schneider-electric.com
	Project Amount: \$600,000.00
Description/Completed as Originally Scheduled: \$600,000 service project to repair deteriorating existing equipment to extend its useful life and bring it to a maintainable standard; installed control, isolation, and thermal expansion valves and variable frequency drives to enhance energy efficiencies and allow for future replacement; assisted management in developing a 5-year capital plan to replace equipment in a fiscally manageable timeframe.	
1 (c)	Experience with GESA Projects Greater than \$5 million
	Date: 2013
	Location: Greater Johnstown School District
	Owner/Owner Contact: Constellation Energy Ron Krhovsky Constellation 24 Summit Park Drive, Suite 103 Pittsburgh, PA.15275 Ronald.krhovsky@constellation.com
	Project Amount: \$1,070,233.00
Description/Completed as Originally Scheduled: As a part of a multi-million-dollar energy service (ESCO) project which included roofing, lighting, plumbing, and mechanical energy conservation measures (ECMs), Huckestein Mechanical Services, Inc. was selected by Constellation Energy to perform the mechanical scope of the project. Mechanical ECMs in Huckestein's turnkey scope of work included: <ul style="list-style-type: none"> • installation of Variable Frequency Drives (VFDs) • premium efficiency supply fan motors • piping modifications • domestic hot water flue replacement • boiler burner modifications 	



	<ul style="list-style-type: none"> • DDC controls • retro-commissioning <p>Huckestein was awarded a follow-on change order which included:</p> <ul style="list-style-type: none"> • rebuilding classroom unit ventilators, fan coil units, Air Handling Units, secondary hot water pumps, pneumatic air compressors • installing isolation valves, drain controls, back-flow preventers, piping drains • integrating new electronic to pneumatic thermostats and associated controls upgrades with the existing Johnson Controls energy management system 				
1	Experience with GESA Projects Greater than \$5 million				
(d)	<table border="1"> <tr> <td>Date: 2016</td> <td>Location: Lawrence County Housing Authority</td> </tr> <tr> <td>Owner/Owner Contact: Gene DiGennaro, Executive Director Lawrence County Housing Authority 724-656-5100</td> <td>Project Amount: \$991,713.43</td> </tr> </table> <p>Description/Completed as Originally Scheduled: Turnkey replace mechanical systems at (6) six facilities:</p> <ul style="list-style-type: none"> • Sky View Towers (mechanical - boilers) • Lawrence Manor (mechanical - boilers) • McGrath Manor (mechanical - boilers) • Crescent Place (mechanical - boilers) • Harbor Heights (furnace replacements) • Lincoln Terrace (furnace replacements) 	Date: 2016	Location: Lawrence County Housing Authority	Owner/Owner Contact: Gene DiGennaro, Executive Director Lawrence County Housing Authority 724-656-5100	Project Amount: \$991,713.43
Date: 2016	Location: Lawrence County Housing Authority				
Owner/Owner Contact: Gene DiGennaro, Executive Director Lawrence County Housing Authority 724-656-5100	Project Amount: \$991,713.43				
2	Subcontractor's Superintendent's Qualifications (4-person limit)				
(a)	<p>Name: Timothy O'Leary, Projects Superintendent</p> <p>Project Responsibilities: Safety, Field personnel oversight</p> <p>Time with Firm: 2 years</p> <p>Experience with GESA projects: 20 years</p> <p>Educational or technical training: Steamfitters Local 449</p> <p>Any other information relevant to the evaluation of the individual: An additional is available bur not provided due to page limitations.</p> <p>Name: Timothy Roos</p> <p>Project Responsibilities: Project manager</p> <p>Time with Firm: 3 years</p> <p>Experience with GESA projects: 20 years</p> <p>Educational or technical training: Steamfitters Local 449</p> <p>Any other information relevant to the evaluation of the individual: An additional is available bur not provided due to page limitations.</p> <p>Name: Fred Heubner</p>				



	<p>Project Responsibilities: Project Foreman</p> <p>Time with Firm: 2 years</p> <p>Experience with GESA projects: 15 years</p> <p>Educational or technical training: Steamfitters Local 449</p> <p>Any other information relevant to the evaluation of the individual:</p>
	<p>Name: Mark Wolfgang</p> <p>Project Responsibilities: Professional Engineer</p> <p>Time with Firm: 1 year</p> <p>Experience with GESA projects: 10 years</p> <p>Educational or technical training: Professional Engineer</p> <p>Any other information relevant to the evaluation of the individual: An additional is available bur not provided due to page limitations.</p>
3	<p>Statement of Readiness and Commitment of Resources</p> <p>(a) I, <u>Wendy P. Staso</u> Confirm the person(s) identified in this RFP are available and will be committed to the Project for the time-period(s) referenced in the attached RFP project schedule.</p> <p>Signature: </p>
4	<p>Subcontractor's Workman's Compensation Experience Modification Rating</p> <p>(a) 2014: .819 2015: .745 2016: .721</p>
5	<p>Notification of Default or Debarment N/A</p> <p>(a) Provide a listing including:</p> <p>Owner: Project: Date and explanation of any contract default or debarment within the last five years:</p>

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
AUDITED CONSOLIDATED FINANCIAL STATEMENTS

For the year ended December 31, 2016

INDEPENDENT AUDITOR'S REPORT

To the Board of Directors of
The Efficiency Network, Inc.
and Subsidiary

We have audited the accompanying consolidated financial statements of The Efficiency Network, Inc. and Subsidiary (a Delaware corporation), which comprise the consolidated balance sheet as of December 31, 2016, and the related consolidated statements of operations, stockholders' equity, and cash flows for the year then ended, and the related notes to the consolidated financial statements.

Management's Responsibility for the Consolidated Financial Statements

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

Auditor's Responsibility

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

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

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

INDEPENDENT AUDITOR'S REPORT

(continued)

Opinion

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of The Efficiency Network, Inc. and Subsidiary as of December 31, 2016, and the results of their operations and their cash flows for the year then ended in conformity with accounting principles generally accepted in the United States of America.

Sisterson + Co. LLP

April 25, 2017

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

CONSOLIDATED BALANCE SHEET

December 31, 2016

ASSETS

Current assets	
Cash	\$ 1,817,283
Accounts receivable	5,240,596
Prepaid expenses and other current assets	795,907
Costs and estimated earnings in excess of billings (Note 3)	<u>509,202</u>
Total current assets	8,362,988
Property and equipment, net (Note 4)	16,596
Software development costs, net (Note 5)	1,926
Deferred tax asset, net (Note 10)	<u>372,370</u>
	<u>\$ 8,753,880</u>

LIABILITIES AND STOCKHOLDERS' EQUITY

Current liabilities	
Accounts payable, including retention payable of \$587,358	\$ 4,035,529
Current portion of settlement payable (Note 7)	100,000
Accrued expenses	391,104
Billings in excess of costs and estimated earnings (Note 3)	<u>788,855</u>
Total current liabilities	5,315,488
Long-term liabilities	
Settlement payable, net of current portion (Note 7)	<u>250,000</u>
Total liabilities	5,565,488
Stockholders' equity (Notes 8 and 9)	
Series A convertible preferred stock, \$0.000001 par value, 2,064,859 shares authorized, 1,893,359 shares issued and outstanding	2
Series B convertible preferred stock, \$0.000001 par value, 2,200,000 shares authorized, 2,982,104 shares issued and outstanding	3
Common stock, \$0.000001 par value, 8,500,000 shares authorized, 3,305,686 shares issued and outstanding	3
Additional paid-in capital	8,950,780
Accumulated deficit	<u>(5,762,396)</u>
Total stockholders' equity	<u>3,188,392</u>
	<u>\$ 8,753,880</u>

The accompanying notes are an integral part of this consolidated financial statement.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENT OF OPERATIONS

Year ended December 31, 2016

Revenue	\$ 21,143,896
Cost of revenue	<u>17,153,808</u>
Gross profit	<u>3,990,088</u>
Operating expenses	
Employee wages and benefits	2,057,036
Information technology	254,717
Consulting	249,438
Legal and accounting	232,845
Travel	151,569
Advertising and promotion	121,745
Rent	113,486
Office	81,890
Insurance	77,118
Amortization	68,550
Education and seminars	22,758
Depreciation	21,928
Miscellaneous	<u>8,197</u>
Total operating expenses	<u>3,461,277</u>
Income from operations	528,811
Other income (expense)	
Interest income	1,035
Other income	8,127
Interest expense	<u>(1,820)</u>
Total other income (expense)	<u>7,342</u>
Net income before income taxes	536,153
Income taxes (Note 10)	<u>--</u>
Net income	<u><u>\$ 536,153</u></u>

The accompanying notes are an integral part of this consolidated financial statement.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENT OF STOCKHOLDERS' EQUITY

	Series A convertible preferred stock	Series B convertible preferred stock	Common stock	Additional paid-in capital	Accumulated deficit	Total
Balance, January 1, 2016 as previously reported	\$ 2	\$ 2	\$ 3	\$ 7,417,596	\$ (6,244,510)	\$ 1,173,093
Adjustment for overstatement of prepaid expenses due to classification error	--	--	--	--	(54,039)	(54,039)
Balance, January 1, 2016 as restated	2	2	3	7,417,596	(6,298,549)	1,119,054
Issuance of 782,104 shares of Series B convertible preferred stock, net of stock issuance costs of \$11,297 (Note 8)	--	1	--	1,488,700	--	1,488,701
Issuance of 66,490 shares of common stock through exercise of stock options (Note 9)	--	--	--	17,287	--	17,287
Stock based compensation (Note 9)	--	--	--	27,197	--	27,197
Net income	--	--	--	--	536,153	536,153
Balance, December 31, 2016	<u>\$ 2</u>	<u>\$ 3</u>	<u>\$ 3</u>	<u>\$ 8,950,780</u>	<u>\$ (5,762,396)</u>	<u>\$ 3,188,392</u>

The accompanying notes are an integral part of this consolidated financial statement.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

CONSOLIDATED STATEMENT OF CASH FLOWS

Year ended December 31, 2016

Cash flows from operating activities	
Net income	\$ 536,153
Adjustments to reconcile net income to net cash used in operating activities	
Depreciation and amortization expense	90,478
Stock based compensation expense	27,197
Increase (decrease) in cash from changes in	
Accounts receivable	(2,576,785)
Prepaid expenses and other current assets	(479,900)
Costs and estimated earnings in excess of billings	655,023
Accounts payable	1,123,039
Accrued expenses	205,990
Settlement payable	(100,000)
Billings in excess of costs and estimated earnings	<u>331,158</u>
Net cash used in operating activities	<u>(187,647)</u>
Cash flows from investing activities	
Purchases of property and equipment	<u>(6,336)</u>
Cash flows from financing activities	
Issuance of common stock in connection with exercise of stock options	17,287
Issuance of Series B convertible preferred stock, net of stock issuance costs	<u>1,488,701</u>
Net cash provided by financing activities	<u>1,505,988</u>
Net increase increase in cash	1,312,005
Cash, beginning of the year	<u>505,278</u>
Cash, end of the year	<u>\$ 1,817,283</u>

The accompanying notes are an integral part of this consolidated financial statement.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

NOTE 1 - NATURE OF BUSINESS

The Efficiency Network, Inc. ("TEN") began operations during 2012 as a next-generation provider of energy and water efficiency projects for existing buildings, primarily performed under fixed-price contracts. TEN is headquartered in Pittsburgh, Pennsylvania. Ten Connected Solutions ("TCS"), TEN's wholly owned subsidiary, was incorporated during 2016 and designs, finances, and implements street lighting solutions and smart cities technology projects.

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

Principles of consolidation

The consolidated financial statements include the accounts of TEN and TCS, collectively referred to as the ("Company"). All intercompany transactions and balances have been eliminated in consolidation.

Cash

The Company maintains its cash in bank accounts in amounts which at times exceed Federally insured limits. The Company does not believe it is exposed to any significant credit risk with respect to cash.

Accounts receivable and bad debt expense

The Company, in the normal course of business, extends credit to customers based on various terms. The Company does not require collateral for these trade accounts receivable.

The Company uses the direct write-off method to account for bad debts from trade accounts receivable, which is considered to approximate the allowance method. Bad debts, if any, from uncollectible trade accounts receivable are recognized when a receivable is considered worthless.

Accounts receivable as of December 31, 2016 included approximately \$673,000 of retainage.

Property and equipment

Property and equipment are stated at cost. Depreciation is computed using the straight line method over the estimated useful lives of the assets ranging from three to five years.

Maintenance and repairs are expensed as incurred. Expenditures that significantly increase asset value or extend useful lives of property and equipment are capitalized. When an asset is sold or retired, the cost and related accumulated depreciation is eliminated from the accounts and any resulting gain or loss is recognized in income.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Software development costs

The Company capitalizes software development costs in accordance with Financial Accounting Standards Board Accounting Standards Codification (“FASB ASC”) 350. FASB ASC 350 provides guidance for the treatment of costs associated with computer software development and defines those costs to be capitalized and those to be expensed. Costs that qualify for capitalization are external direct costs, payroll, and payroll-related costs. Costs related to general and administrative functions do not qualify for capitalization and are expensed as incurred. The Company begins capitalization of program development costs when the project’s preliminary project stage is completed and it is probable that the project will be completed.

The Company ends capitalization of software development costs when the project is substantially complete and ready for its intended use, and all substantial testing is completed. Software development costs are generally amortized over a period of three years, which represents the estimated useful life of the software, on a straight line basis.

Stock-based compensation

The Company recognizes compensation expense in an amount equal to the fair value of stock-based payments of all stock option awards. The fair value of each option granted is estimated on the date of grant using the Black-Scholes option-pricing model.

Revenue recognition

The Company recognizes revenue from fixed-price contracts on the percentage-of-completion method. Under the percentage-of-completion method, the relationship of actual costs incurred to total estimated costs of the contracts is applied to total income to be derived from the contracts. Costs include all direct material, subcontract costs, labor costs, and job-related overhead. General and administrative costs are charged to expense as incurred. Provisions for estimated losses on uncompleted contracts, if any, are made in the period in which such losses are determined.

Because of inherent uncertainties in estimating costs, it is at least reasonably possible that estimates used will change in the near term. Changes in job performance, job conditions, or estimated profitability, including those that might arise from final contract settlements, may result in revisions to costs and income. Such changes are recognized in the period in which the revisions are determined.

Advertising

The Company expenses advertising costs as they are incurred.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 2 - SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES (continued)

Income taxes

The Company provides for taxes based on income as reported in the consolidated statement of operations. Deferred tax assets and liabilities are recognized for future tax benefits or consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date. Valuation allowances are established when necessary to reduce deferred tax assets to amounts expected to be realized.

The FASB ASC on Income Taxes clarifies recognition, measurement, presentation, and disclosure relating to uncertain tax positions. The Company evaluates uncertain tax positions for recognition by determining whether evidence indicates it is more likely than not that a position will be sustained if examined by taxing authorities. As of December 31, 2016, the Company is unaware of any uncertain tax positions; however, were such matters to arise, they would be evaluated in accordance with existing accounting principles and accruals and disclosures would be made as required. The Company's tax returns for 2013 and beyond remain subject to examination by the Internal Revenue Service.

Use of estimates

The preparation of consolidated financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the consolidated financial statements and the reported amounts of revenue and expenses during the reporting period. Actual results could differ from those estimates.

Subsequent events

The Company evaluates events and transactions occurring subsequent to the date of the consolidated financial statements for matters requiring recognition or disclosure in the consolidated financial statements. The accompanying consolidated financial statements consider events through April 25, 2017, the date on which the financial statements were available to be issued.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
 (continued)

NOTE 3 - CONTRACTS IN PROGRESS

Costs and recognized earnings on contracts in progress are summarized as follows as of December 31, 2016:

Costs incurred on contracts in progress	\$ 20,328,735
Recognized earnings	4,572,192
	24,900,927
Costs and estimated earnings on contracts in progress	24,900,927
Less: billings to date	25,180,580
	\$ (279,653)
Costs and recognized earnings in excess of billings on uncompleted contracts	\$ 509,202
Billings in excess of costs and recognized earnings on uncompleted contracts	(788,855)
	\$ (279,653)

As of December 31, 2016, the Company's backlog was approximately \$17,880,000.

NOTE 4 - PROPERTY AND EQUIPMENT

Property and equipment consisted of the following as of December 31, 2016:

Business equipment	\$ 95,001
Furniture and fixtures	30,621
	125,622
Less: accumulated depreciation	109,026
	\$ 16,596

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 5 - SOFTWARE DEVELOPMENT COSTS

Capitalized project development costs consisted of the following as of December 31, 2016:

Software development costs	\$ 345,727
Less: accumulated amortization	<u>343,801</u>
	<u>\$ 1,926</u>

NOTE 6 - LINE OF CREDIT

TEN has a revolving line of credit agreement with a bank with maximum allowable borrowings of \$1,000,000. The line is collateralized by certain assets of the Company as defined in the agreement. Interest is payable at the prime rate, as defined, plus .5%, capped at 4.75%. The line is guaranteed by the founders of the Company. As of December 31, 2016, there were no outstanding borrowings against the line.

NOTE 7 - LITIGATION SETTLEMENT

TEN was named as a defendant in a lawsuit related to a non-compete agreement. The lawsuit was settled during 2015 for total damages of \$700,000. As of December 31, 2016, the remaining amount outstanding of \$350,000 is payable to the plaintiff in two annual installments of \$100,000 and a final annual installment of \$150,000. The remaining amount due has been recorded as settlement payable on the Company's consolidated balance sheet.

NOTE 8 - STOCKHOLDERS' EQUITY AND CONVERTIBLE NOTE PAYABLE

During 2016, the Company issued 782,104 of Series B Convertible Preferred Stock ("Series B") at a purchase price of \$1.9179 per share in exchange for \$1,499,998.

As of December 31, 2016, the Company's equity consisted of Series A convertible preferred stock ("Series A"), Series B, and common stock.

The Series A shares have a par value of \$.000001 and the following features:

- a. Convertible, at the stockholders' option or a mandatory conversion event, as defined, to the Company's common stock at the then-applicable conversion price (one-to-one as of December 31, 2016), based on the original issue price of \$1.0574 ("Series A original issue price") per share.
- b. Voting rights equal to the number of shares of common stock into which the Series A shares are convertible.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 8 - STOCKHOLDERS' EQUITY AND CONVERTIBLE NOTE PAYABLE (continued)

- c. Upon liquidation, receive on a pari passu basis with the holders of Series B, in preference to the holders of the common stock, an amount equal to the Series A original issue price per share plus all cumulative dividends.
- d. Cumulative dividends at 5% per annum on the Series A original issue price per share. Dividends are payable only upon a liquidation or conversion event, as defined. No dividends had been paid or accrued and dividends in arrears totaled \$366,735 (\$.1937 per share) as of December 31, 2016.
- e. Automatically convert into common stock at the then-applicable conversion rate (1) if holders of a majority of the outstanding shares of Series A shares together consent to such a conversion, or (2) upon the closing of a firm commitment underwritten public offering of the Company's common stock in excess of \$30,000,000.

The Series B shares have a par value of \$.000001 and the following features:

- a. Convertible, at the stockholders' option or a mandatory conversion event, as defined, to the Company's common stock at the then-applicable conversion price (one-to-one as of December 31, 2016), based on the original issue price of \$1.9179 ("Series B original issue price") per share.
- b. Voting rights equal to the number of shares of common stock into which the Series B shares are convertible.
- c. Upon liquidation, receive on a pari passu basis with the holders of Series A, in preference to the holders of the common stock, an amount equal to the Series B original issue price per share plus all cumulative dividends.
- d. Cumulative dividends at 5% per annum on the Series B original issue price per share. Dividends are payable only upon a liquidation or conversion event, as defined. No dividends had been paid or accrued and dividends in arrears totaled \$501,105 (\$.1680 per share) as of December 31, 2016.
- e. Automatically convert into common stock at the then-applicable conversion rate (1) if holders of a majority of the outstanding shares of Series B shares together consent to such a conversion, or (2) upon the closing of a firm commitment underwritten public offering of the Company's common stock in excess of \$30,000,000.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 8 - STOCKHOLDERS' EQUITY AND CONVERTIBLE NOTE PAYABLE (continued)

The common shares have a par value of \$.000001 and the following features:

- a. Upon liquidation, entitled to remaining assets subsequent to payment of all amounts due to preferred stockholders, based on the pro rata share of common shares held.
- b. Voting rights equal to the number of common shares held.
- c. Dividends, at the discretion of the Company's Board of Directors.

In connection with an issuance of convertible notes payable during 2014, the Company issued to the holder of certain convertible note payable, detachable stock purchase warrants to purchase a total of 171,500 shares of Series A at a purchase price of \$.01 per share. A fair value of \$179,645 was assigned to these warrants based on an estimate using the Black-Scholes option-pricing model. The warrants expire on March 11, 2024.

NOTE 9 - STOCK INCENTIVE PLAN

In April 2013, the Company's Board of Directors approved the Stock Incentive Plan. The plan is authorized to issue awards, consisting of stock options or restricted stock of up to 1,000,000 common shares. As of December 31, 2016, 1,000,000 shares of the authorized common stock are reserved for awards under the plan. The plan terminates on April 18, 2023. Stock options are subject to vesting and other limitations established by the Board of Directors, provided that the life of the grant be no more than ten years (not more than five years for an incentive stock option issued to an employee who owns more than 10% of the Company). This plan can issue both nonqualified and incentive stock options. Generally, stock options vest over a four-year period. Options under this plan are available to any employee, officer, director, consultant, or advisor of the Company. However, only employees of the Company may receive awards of incentive stock options.

The Board of Directors determines the exercise price of each option. Incentive stock options may not be granted at exercise prices below fair value of the common stock on the date of grant (110% of fair value for employees who own 10% or more of the Company). Nonqualified options are granted at an exercise price as determined by the Company's Board of Directors.

All nonqualified stock options are considered to be incentive stock options for financial reporting purposes.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(continued)

NOTE 9 - STOCK INCENTIVE PLAN (continued)

Compensation expense was estimated using the Black-Scholes option-pricing model with the following assumptions:

Assumptions	2016
Value of common stock	\$1.00 per share
Expected volatility	25.44%
Expected dividends	0%
Expected life	10 years
Risk-free interest rate	.767%

Expected volatility is the measure of change in the market price of common stock over the contractual term of an option. As the Company's stock is not traded on a regular basis, a measurement of volatility is not readily available. Therefore, the expected volatility was estimated based on the average historical volatility from the NASDAQ Clean Green Energy Index, which is believed by management to be the sector that best reflects the volatility of the Company's common stock. The historical period used for the calculation of expected volatility is comparable to the vesting period of the related options. Expected dividends represent expected annual dividends on common stock for the contractual life of the options.

The expected life represents the weighted-average remaining contractual life of the option before the option expires. The risk-free interest rate for the years during the contractual life of the option were the average implied yields at the date of grant from the zero-coupon U.S. Treasury securities with a maturity similar to the vesting period of the related option.

The following table summarizes information about stock options outstanding as of December 31, 2016:

Exercise price	Options outstanding			Options exercisable		
	Number outstanding	Weighted average remaining contractual term	Weighted average exercise price per option	Number exercisable	Weighted average exercise price per option	
\$ 0.2600	45,000	5.61 years	\$ 0.2600	45,000	\$ 0.2600	
0.2600	15,000	6.40	0.2600	13,422	0.2600	
0.4700	130,000	6.72	0.4700	104,965	0.4700	
0.4700	20,000	7.69	0.4700	15,107	0.4700	
0.4700	239,000	8.24	0.4700	100,915	0.4700	
1.0000	5,000	8.74	1.0000	1,460	1.0000	
1.0000	202,500	9.25	1.0000	--	1.0000	
	656,500	8.02	0.6183	280,869	0.4291	

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY
NOTES TO CONSOLIDATED FINANCIAL STATEMENTS
(continued)

NOTE 9 - STOCK INCENTIVE PLAN (continued)

The following tables summarize information about stock option activity during 2016:

Options	Number of outstanding options	Weighted average exercise price per option	Weighted average grant-date fair value per option
Outstanding as of January 1, 2016	485,000	\$ 0.4129	\$ 0.1583
Granted	262,500	0.8789	0.2909
Exercised	(66,490)	0.2600	0.1229
Cancelled	<u>(24,510)</u>	0.3885	0.1526
Outstanding as of December 31, 2016	<u>656,500</u>	0.6183	0.2152

Options	Number of nonvested options	Weighted average exercise price per option	Number of vested options	Weighted average exercise price per option
Outstanding as of January 1, 2016	282,019	\$ 0.4557	202,981	\$ 0.3622
Vested	(151,577)	0.4463	151,577	0.4463
Granted	262,500	0.8789	--	--
Exercised	--	--	(66,490)	0.2600
Cancelled	<u>(17,311)</u>	0.3546	<u>(7,199)</u>	0.4700
Outstanding as of December 31, 2016	<u>375,631</u>	0.7598	<u>280,869</u>	0.4291

Options	Number of nonvested options	Weighted average grant-date fair value per option	Number of vested options	Weighted average grant-date fair value per option
Outstanding as of January 1, 2016	282,019	\$ 0.1728	202,981	\$ 0.1517
Vested	(151,577)	0.1700	151,577	0.1700
Granted	262,500	0.2909	--	--
Exercised	--	--	(66,490)	0.1229
Cancelled	<u>(17,311)</u>	0.1448	<u>(7,199)</u>	0.1715
Outstanding as of December 31, 2016	<u>375,631</u>	0.2577	<u>280,869</u>	0.1679

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(continued)

NOTE 9 - STOCK INCENTIVE PLAN (continued)

The nonvested and vested options have a weighted average remaining contractual term of 8.67 years and 7.13 years, respectively, as of December 31, 2016. As of December 31, 2016, there was \$71,863 of unrecognized compensation costs related to stock options. These costs are expected to be recognized over a weighted average period of approximately four years. The Company recognized \$27,197 of compensation costs related to stock options during 2016.

NOTE 10 - INCOME TAXES

The Company's deferred tax asset consisted of following as of December 31, 2016:

Gross deferred tax assets	\$	2,352,334
Less: gross deferred tax liabilities		<u>(355)</u>
Net deferred tax asset before valuation allowance		2,351,979
Less: valuation allowance		<u>(1,979,609)</u>
Net deferred tax asset	\$	<u>372,370</u>

The deferred tax assets relate primarily to net operating loss ("NOL") carryforwards and federal research and development tax credits. As of December 31, 2016, the Company has NOL carryforwards for federal and state purposes of approximately \$5,384,000 that begin to expire in 2033. As of December 31, 2016, the Company also has federal research and development tax credit carryforwards of approximately \$20,000 that begin to expire in 2033. The Company has provided a valuation allowance for a portion of its deferred tax assets due to the uncertainty of realizing those benefits in future years. As such, no income tax benefit relative to NOL carryforwards and other timing differences is recorded in the 2016 consolidated statement of operations.

NOTE 11 - CUSTOMER CONCENTRATIONS

The Company had three contracts during 2016 on which the Company recognized \$8,664,168, or 41%, of total revenue. The amounts due from these contracts included in accounts receivable as of December 31, 2016 was \$1,795,632.

NOTE 12 - COMMITMENTS

The Company leases office space under a non-cancelable lease agreement expiring on December 31, 2016. As of December 31, 2016, future minimum lease payments under this non-cancelable lease are \$88,097 during 2017; \$105,716 during 2018; and \$104,716 during 2018. Rent expense amounted to \$113,486 for the year ended December 31, 2016.

THE EFFICIENCY NETWORK, INC. AND SUBSIDIARY

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

(continued)

NOTE 13 - DEFINED CONTRIBUTION PLAN

The Company sponsors a 401(k) profit sharing plan covering substantially all full-time employees who have attained the age of twenty-one and completed three consecutive months of employment. The plan is a "safe-harbor" plan, under which the Company may elect to contribute a minimum amount of 3% of each employee's compensation, as defined, in order to satisfy safe-harbor rules. The Company made no contributions to the plan for the year ended December 31, 2016.