

Response to Request for Qualifications for the Arkansas Energy Performance Contracting Program

# Arkansas Department of Environmental Quality – Arkansas Energy Office (AEO)

North Little Rock, Arkansas | October 18, 2019



## Arkansas Department of Environmental Quality – Arkansas Energy Office (AEO)

#### Response to Request for Qualification for the Arkansas Energy Performance Contracting Program

Submittal Schedule: Due October 18, 2019

Attn: Chet Howland
Arkansas Department of Environmental Quality –
Arkansas Energy Office
5301 Northshore Drive
North Little Rock, AR 72118-5317

### ESCO Respondent Energy Systems Group (ESG)

70 N. College Avenue, Suite 14 Fayetteville, Arkansas 72701

#### **Jonelle Booth, Account Executive**

Phone: (479) 422-8302 Fax: (812) 475-2544 Email: jbooth@esg.email

#### David Rehse, Sales Manager, South Region

Phone: (615) 209-7172 Email: drehse@esg.email

### **TABLE OF CONTENTS**

1. EXECUTIVE SUMMARY	4
2. COMPANY OVERVIEW	8
3. MANAGEMENT AND STAFFING	12
4. COMPANY FINANCIAL STATUS	22
5. MARKETING APPROACH	26
6. REPORTING APPROACH	27
7. TECHNICAL APPROACH	29
8. COMPANY SCOPE OF SERVICES	38
9. PROJECT HISTORY	52
11. COST AND PRICING	62
12. APPENDIX	66

### 1. EXECUTIVE SUMMARY

Submit an Executive Summary providing a brief overview of your company's proposal to be accepted as a prequalified ESCO in the AEPC Program:

- 1. Summarize your firm's commitment to comply with the policies, procedures and rules as outlined in the AEPC Program Rules Manual. (If changes are made to the manual, AEO will articulate those changes to all prequalified providers and require a receipt that they have been received.)
- 2. Summarize how your firm meets the minimum qualifications, stated in Part 1, Section 5.
- 3. Summarize how your firm's expertise and approach will enhance the effectiveness and reputation of the AEPC Program.
- 4. State your permission for AEO to share your SOQ publicly (online, electronically, print) and acknowledge that your SOQ may be used by public entities to help select which ESCOs to interview for EPC projects.

Energy Systems Group, LLC (ESG) commends the Arkansas Energy Office for affording public agencies a unique opportunity to take part in a program designed to achieve facility improvements and address significant deferred maintenance while greatly enhancing opportunities for economic growth, resilience, and efficiency and improving learning and working environments across Arkansas.

ESG understands that when choosing an Energy Service Company (ESCO), it is important to partner with a financially-robust company whose core business is energy performance contracting. ESG is uniquely qualified to continue serving the State of Arkansas with extensive design, construction, engineering, and technical expertise amassed over 27 years of consistently and successfully providing leading energy and infrastructure solutions for agencies across the United States. ESG's services and solutions help increase energy resilience and efficiency while ensuring that improvements are paid for from savings with no up-front capital costs.

As a NAESCO-accredited Energy Service Provider headquartered in the Midwest, ESG specializes in delivering design and construction services to implement sustainable energy solutions that allow colleges and universities, K-12 schools, cities, counties, utilities, and state governments to maximize efficiency and operational performance and reduce their carbon footprint. For more information, visit EnergySystemsGroup.com.

ESG is a subsidiary of CenterPoint Energy, Inc. (NYSE: CNP). Headquartered in Houston, Texas, CenterPoint Energy, Inc. is an energy delivery company with regulated utility businesses in eight states and a competitive energy businesses footprint in nearly 40 states. Through its electric transmission & distribution, power generation and natural gas distribution businesses, the company serves more than 7 million metered customers primarily in Arkansas, Indiana, Louisiana, Minnesota, Mississippi, Ohio, Oklahoma and Texas. CenterPoint Energy's competitive energy businesses include energy-related services, energy efficiency and sustainability solutions, and owning and operating intrastate natural gas pipeline systems that help fund utility operations. With approximately 9,600 employees and nearly \$33 billion in assets, CenterPoint Energy and its predecessor companies have been in business for more than 150 years. For more information, visit <a href="CenterPointEnergy.com">CenterPointEnergy.com</a>.

#### **ESG's Commitment**

ESG is committed to complying with the policies, procedures and rules as outlined in the AEPC Program Rules Manual and has taken the appropriate steps to become a *Qualified Provider* in Arkansas. ESG's core business is energy performance contracting and as a product-agnostic and vendor-neutral energy services provider, we are committed to selecting products and services that ensure top-quality performance and achievement of the requirements and goals outlined in this Request for Qualifications.

*Qualified Provider* means a person or business, including all subcontractors and employees of that person or business and third party financing companies, that:

(A) Is properly licensed in the State of Arkansas;	ESG understands licensing and labor requirements to conduct work in Arkansas such as:
· · · · · · · · · · · · · · · · · · ·	<ul> <li>Verification of state/local trade and business licensing credentials prior to doing business with the subcontractor/vendor</li> </ul>
	<ul> <li>Compliance with all federal, state and local labor laws including I-9 employment eligibility, affirmative action, wage and hour laws</li> </ul>
	<ul> <li>Compliance with environmental, health and safety laws (review of contractor safety plans and track records)</li> </ul>
	ESG also understands that any Energy Service Company (ESCO) wishing to enter into a contract with the State of Arkansas must hold a valid contractor's license issued by the State of Arkansas Contractor's State License Board.
(B) Has been reviewed and certified by the Arkansas Energy Office as a qualified provider under this subchapter;	ESG is a qualified provider under the AEPC program and anticipates remaining qualified after this current round of qualifications.
(C) Is experienced in the design, implementation, measurement, verification, and installation of energy cost savings measures;	Our project development capabilities are widely recognized, award winning, and well documented. From traditional energy conservation measures such as lighting upgrades and water conservation to the more complex central plant-related measures, and for everything in between, ESG has solid performance credentials to develop comprehensive energy conservation projects that optimize savings and provide the greatest value attainable for our customers.
(D) Has at least five (5) years of experience in the analysis, design, implementation, installation, measurement, and verification of energy efficiency and facility improvements;	ESG has developed over \$3.6 billion dollars in energy and infrastructure projects for over 400 customers since 1994. This work has been completed or is in various stages of completion in Arkansas, Missouri, Texas, Illinois, Michigan, Kentucky, Tennessee, Indiana, Utah, California, and other states across the country.
(E) Has the ability to arrange or provide the necessary financing to support a guaranteed energy cost savings contract; and	ESG has long-standing relationships with various financial institutions and helps customers facilitate financing solicitations or competitive bid processes to best support guaranteed energy savings contracts.
(F) Has the ability to perform under a contract that requires the person or business to	Beyond safety record, financial stability, and experience, we have two main requirements of all of our subcontractors:
guarantee the work performed by one (1) or more subcontractors;	1st – They must be preapproved by our Customers to perform work in our Customer's facilities; and
· [	2 <sup>nd</sup> – They must demonstrate (contractually) to ESG that they can perform quality work within the schedule required for the project at a fair price.

### Why Select Energy Systems Group (ESG)?

### **Expertise**

Energy performance contracting is our core business. Our team of engineers, project managers, and energy specialists brings extensive experience in successfully developing comprehensive energy performance contracts. The ESG team is poised to best serve the State of Arkansas having completed over \$3.6 billion of energy and infrastructure improvements for higher education, K-12, local and state government, healthcare, park district, retirement community, industrial, and prison energy performance agencies, thus enabling us

#### **EXPERTISE**

ESG has proven project history and wideranging experience, which minimizes risk and continues to earn customers' trust as a leading energy services provider.

to draw resources and experience from a wide-ranging resume of successful projects and proven expertise.

#### **Product Independence**

As a brand- and product-neutral Energy Service Provider, we develop projects and install equipment based on the value to our customers. With ESG, you can be confident that our solutions are customercentric. Further, ESG helps provide training to our customers' staff to support maintenance of the new systems and will help competitively bid any necessary third-party maintenance contracts.

#### PRODUCT INDEPENDENCE

Because ESG is not a manufacturer of products, State and local agencies will receive an unbiased solution

### **Local Partnership**

ESG leverages its extensive market presence and quality business relationships with vendors and subcontractors in our customers' locale to provide optimal financial and sustainable solutions, and working to seamlessly and collaboratively to promote economic growth and sustainability. ESG will work with qualified local vendors and subcontractors to ensure design and implementation consistency, quality control and immediate mobilization for a comprehensive project.

#### **LOCAL PARTNERSHIP**

ESG will work with qualified local subcontractors and vendors to drive economic growth, efficiency, and sustainability in customers' communities

As a customer-focused ESCO for the past 27 years, the development of long-lasting and trusting relationships continues to be the foundation of our business. The longevity and cohesiveness of the ESG model is illustrated in the ESCO Project Team section of our response.

### **Financial Strength**

ESG is a subsidiary of CenterPoint Energy, Inc. (NYSE: CNP), an energy delivery company with nearly \$33 billion in assets. Our financial strengths help ensure financial and performance guarantees will be met over the duration of the contract.

#### FINANCIAL STRENGTH

Lowered risk by working with ESG, a subsidiary of CenterPoint Energy, Inc., an energy delivery company with nearly \$33 billion in assets.



### ESG's Added Value – Customized Public Relations and Communications Programs

ESG is uniquely positioned to help promote the successes of the Arkansas Energy Office and Arkansas Energy Performance Contracting Program through customized public relations and communications platforms as part of our projects. These platforms include a wide-range of marketing, public relations, and community engagement materials to help advance the benefits, achievements, and positive impacts of these projects.

#### Summary

As demonstrated in our response, ESG meets or exceeds all of the criteria set forth in this Request for Qualifications. ESG is committed to working with the AEDC, AEO, and State Agencies to deliver strong performance assurance underscored by our proven capabilities, qualifications, and specialized expertise:

- Core Business is Energy Performance Contracting
- Product Independence
- Extensive Experience and Proven Results
- Strong Financial Backing

On behalf of the entire ESG team, we thank you for your consideration of our proposal. We look forward to implementing highly successful projects throughout Arkansas as your qualified provider.

#### **Permission**

ESG gives permission for AEO to share our SOQ response publicly (online, electronically, print) and acknowledges that our SOQ response may be used by public entities to help select which ESCOs to interview for EPC projects.



Razors EDGE Project Website



Town of Niskayuna, NY -Water Resource Recovery Project Ground Breaking Ceremony



City of Montpelier Water Resource Recovery Facility Project Website



Paterson Public Schools, NJ Classroom STEM Instruction



### 2. COMPANY OVERVIEW

2a. History and Focus of Company

Describe the history and focus of the company, including:

a) Structure and evolution of the firm;

#### **Company Structure**

Energy Systems Group, LLC is a limited liability company with approximately 400 employees living/working in 34 states. Our growth and expansion comes as a result of our dedication to project completion — not just with an "on-time and on-budget" mentality, but with a foundational business philosophy and a consistent objective of overachieving to provide exceptional value and results that translate into the highest level of customer satisfaction and deliver the greatest possible benefits to each of our customers.

Since our beginning in 1994, ESG has been serving our primary customer base, which includes State, Local, and Federal Government; Higher Education; K-12 Schools; Healthcare; and Commercial and Industrial. From customers with straightforward energy equipment upgrade needs, to mid- and large-size customers with more complex facility needs and challenges, to customers requiring new central energy plants, ESG delivers to each the same high quality of workmanship, same level of attention, same level of commitment, and the same effort and objectives of overachieving.

Along with our parent and affiliated companies, we have a comprehensive menu of services to offer our customers that enables us to meet their diverse needs.

#### **Company Evolution**

Energy Systems Group (ESG) was formed in 1994 as a non-regulated, wholly owned subsidiary of Southern Indiana Gas & Electric Company (SIGECO). In 1996, ownership was transferred to SIGCORP, a holding company created to facilitate growth of non-regulated business.

In 1997, as many utilities were forming energy service companies (ESCOs), ESG entered into alliance discussions with two other Indiana-based utilities that eventually led to the sale on June 18, 1997, of 2/3 of ESG. SIGCORP sold 1/3 of ESG to Indiana Energy and 1/3 to Citizens Gas & Coke Utility. ESG was then owned by two utility holding companies and one utility company municipal trust (SIGCORP, Indiana Energy, and Citizens Gas & Coke Utility).

In April 2000, SIGCORP and Indiana Energy merged to form Vectren Corporation. With that merger, the parent companies of ESG became Vectren Corporation and Citizens Gas & Coke Utility.

Effective January 2003, Vectren Corporation purchased Citizens Gas & Coke Utility's 1/3 share of ESG and ESG became a wholly owned subsidiary of Vectren Corporation.

In 2019 ESG became a subsidiary of CenterPoint Energy, Inc. (NYSE: CNP). Headquartered in Houston, Texas, CenterPoint Energy, Inc. is an energy delivery company with regulated utility businesses in eight states and a competitive energy businesses footprint in nearly 40 states. Through its electric transmission & distribution, power generation and natural gas distribution businesses, the company serves more than 7 million metered customers primarily in Arkansas, Indiana, Louisiana, Minnesota, Mississippi, Ohio, Oklahoma and Texas. CenterPoint Energy's competitive energy businesses include energy-related services, energy efficiency and sustainability solutions, and owning and operating intrastate natural gas pipeline systems that help fund utility operations.

With approximately 9,600 employees and nearly \$33 billion in assets, CenterPoint Energy and its predecessor companies have been in business for more than 150 years. For more information, visit <a href="Maintenancemont.com"><u>CenterPointEnergy.com</u></a>.

ESG became profitable in its fifth month of operation and has remained profitable ever since. We have remained profitable by controlling growth and maintaining our focus on satisfying customers through Performance Contracting.

b) Number of years in energy-efficiency related business; and

#### Number of Years in the Energy-Efficiency Related Business

ESG has been in the energy-efficiency related business for 27 years.

#### Number of Years the Company has offered EPC Services

ESG has offered EPC services for 27 years.

c) Number of public energy-efficiency projects completed by your firm or key members of your firm over the past five years: number under \$1 million in project cost; number over \$1 million in project cost.

Since our inception, ESG has implemented over 700 energy efficiency and facility infrastructure improvement projects in the United States and the U. S. Virgin Islands with a total value in excess of \$3.6 billion for more than 400 customers including Local, State, and Federal Governments; K-12 Schools; Colleges and Universities; Healthcare and Veterans Affairs Medical Centers; Wastewater Treatment Plants; Airports; and Military Bases. Energy Savings Performance Contracting (ESPC) is ESG's core business. We are completely product-independent so our customers can receive the best products available in the market. We continue to develop innovative solutions that enable our clients to be more efficient, comfortable, and secure with their facility operations, energy management and organizational requirements.

Below are the numbers of EPC projects completed by ESG over the past five years:

#### Completed Energy Projects (Non-Military Bases):

Total	
Over \$1 M	
Under \$1 M	

#### Completed Energy Projects (Military Base ):

Total	
Over \$1 M	
Under \$1 M	



Five Year Summary of contract values for energy related services:

Year	Contract Value	Contract #	Revenue Amount
2020 Total			
2019 Total		I	
2018 Total			
2017 Total			
2016 Total			

• Estimate of total value for all energy-related contracts that are currently in force:

ESG M&V Tracking Numbers	Public Sector	Federal Business Unit	Total
Number Currently Under Contract:			
Total Guarantee Value:			
Total Guarantee Remaining Unmet:			
Date:			

#### 2b. Industry Accreditations and Memberships

Provide information on any accreditations and/or memberships in any industry organizations (e.g. Arkansas Advanced Energy Association (AAEA), Energy Services Coalition (ESC), and National Association of Energy Service Companies (NAESCO)).

#### ESG is an accredited member of the National Association of Energy Services Companies.

In 1999, ESG participated in the Accreditation Program and Review. ESG received recognition by the National Association of Energy Service Companies (NAESCO) as an Energy Services Company (ESCO) with reaccreditation received from 2001 through 2003 when ESG received NAESCO accreditation as an Energy Service Provider (ESP). A full size copy of our most recent Certificate of Accreditation may be found in 12. Appendix.



ESG is one of only ten companies nationally accredited by the National Association of Energy Services Companies (NAESCO) as an Energy Services Provider through their stringent accreditation process.

ESG's accreditation can also be verified on NAESCO's website at this link: <a href="https://naesco.org/accredited-companies">https://naesco.org/accredited-companies</a>.

#### Additional accreditations and memberships held by ESG include:

- The American College & University Presidents Climate Commitment (ACUPCC);
- Association for the Advancement of Sustainability in Higher Education (AASHE)
- American Society of Quality (ASQ)
- American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE)
- Clinton Climate Initiative
- Energy Services Coalition (ESC)
- Energy Star Partner
- Illinois Association of School Boards (IASB) Service Associate
- Illinois Clean Energy Community Foundation
- Landfill Methane Outreach Program
- Midwest Cogeneration Association (MCA)
- Midwest Energy Efficiency Alliance (MEEA)
- U.S. Department of Defense/Department of Energy qualified ESPC contractor
- U.S. Green Building Council (USGBA)

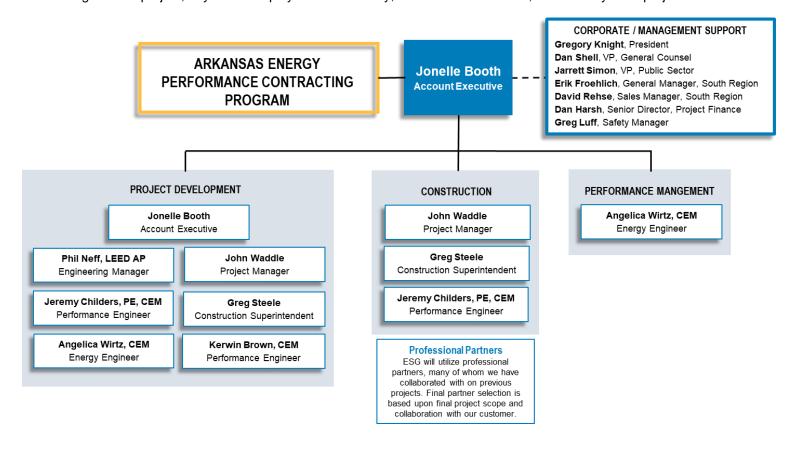
Our projects and customers have earned several awards and certifications. From Leadership in Energy and Environmental Design (LEED) certifications to being recognized by the U.S. Department of Environmental Protection as Energy STAR Leaders, our innovation, performance and expertise is award winning.

ESG was awarded a Multiple Award Task Order Contract (MATOC) by the U.S. Army Corps of Engineers (USACE), Engineering and Support Center, Huntsville, working with the Army Energy Initiatives Task Force (EITF). ESG is one of 13 companies selected as a qualified biomass technology contractor that will be eligible to bid on future biomass renewable energy task orders, which includes municipal solid waste and waste-to-energy.

### 3. MANAGEMENT AND STAFFING

- 3a. Project Management and Staffing
- a) Organizational Structure—Show a typical generic organization chart for implementing and managing a project.

The following organization chart details the expected ESG team members who will be directly responsible for each aspect of implementing and managing an Arkansas-based project. While some individuals are specifically assigned to a project, any of the employees at ESG may, at one time or another, work on any ESG project.



a) <a href="Project Responsibility">Project Responsibility</a>—in a single table, list your personnel pool of individuals who will potentially be assigned responsibility for each task and phase of a project under the AEPC Program. Also include any added expertise and capability of staff available through other branch offices, subcontracts, etc., that can provide back-up strengths to your firm. Include the office location for each individual, branch office or subcontractor.

### **ESG Project Team – South Region**

Title	Name	Yrs. of Expertise	Base Location
Vice President, Public Sector	Jarrett Simon	25+	Corporate Office*
Account Executive	Jonelle Booth	20+	Fayetteville, AR
Sales Manager, South Region	David Rehse	20+	Nashville, TN
Engineering Manager	Philip Neff, LEED AP	22+	Kansas City, KS
Sr. Performance Engineer	Jeremy Childers, PE, CEM	10+	Corinth, MS
Energy Engineer	Angelica Wirtz, CEM	5+	Dallas, TX
Performance Engineer	Kerwin Brown, CEM	20+	Fayetteville, AR
Project Manager	John Waddle	30+	Nashville, TN
Construction Superintendent	Greg Steele	20+	Nashville, TN

### **Corporate Support**

Title	Name	Yrs. of Expertise	Base Location
ESG President	Gregory Knight	25"	Houston, TX
Corporate General Counsel	Dan Shell	32+	Corporate Office*
Director of Finance	Dan Harsh	30+	Corporate Office*
Vice President, Marketing & Communications	Meram El Ramahi	25+	Corporate Office*
Contracts Manager	Angie Rawlinson	16+	Corporate Office*
M&V Director	Brian Clippinger	21+	Eagan, MN
M&V Analyst	Mary Kaloto, CMVP	4+	Corporate Office*

<sup>\*</sup>Corporate office is located in Newburgh, Indiana

ESG takes a project-focused approach to the project and creates regional "centers of excellence" to provide project support. We have put together a team whose core skillset include construction management, engineering, measurement and verification of energy savings, and finance — required to make a project a success. Included in this section is a graphic and narrative description of the administrative structure of our ability to manage the services provided. Major responsibilities and areas of expertise have been outlined in this response.

Our Operations and Sales teams work together to ensure that quality projects are delivered to our satisfied customers. The Account Executive is the primary customer contact during the development and negotiation phases of our project. The Project Manager will be the primary contact during the installation phase. Performance Engineers interact with team members during all phases of a project. Customer satisfaction is the goal of every project at ESG. With that in mind, we set up a team of professionals to work together throughout every project, large or small.

These individuals work together from the concept stage through the final day of the guarantee period to ensure that our customers are satisfied and that their needs and concerns have been met.

The Project Team makes up a nucleus of the larger ESG Team. As additional competencies and resources are required, ESG, together with our parent company (CenterPoint Energy, Inc.), will ensure that the requirements of the project will be met or exceeded.

ESG's South Region Team includes highly certified and licensed professional engineers, project managers, and energy and operations specialists, and a strong leadership team that bring exceptional expertise and proven results in developing and implementing comprehensive energy performance and infrastructure projects of varying complexity and size. We build integrated teams of specialists based on the requirements of each project, working in concert with each customer to plan, price, design, and implement the most valuable, cost-effective, and efficient results.

### **Energy Systems Group's Strategic Asset Team Members**

The organizational chart earlier in this section shows details of the ESG team members available to be directly responsible for each aspect of this project. While these individuals may be specifically assigned to a project, any of the employees at ESG may, at one time or another, work on any job. Team member qualifications and their specific roles for the duration of the contract have been provided in this section.

Following are descriptions of the ESG project team members' respective responsibilities and contact information.

### Management - South Region

Name	Title	Phone	Email
Erik Froehlich	General Manager, South Region	(727) 325-1876	efroehlich@esg.email
David Rehse	Sales Manager, South Region	(615) 209-7172	drehse@esg.email
Phil Neff, LEED AP	Engineering Manager	(785) 727-7736	pneff@esg.email

#### South Region Management responsibilities include:

- Monitoring the installation of contracts
- Ensuring customer satisfaction
- Overseeing the Project Managers in developing a project plan and schedule
- Monitoring the Performance Engineers in developing project solutions, costs, and energy savings
- Monitoring the Measurement and Verification Specialists after completion of the project



### Sales and Primary Contacts for Arkansas Projects

Name	Title	Phone	Email
Jonelle Booth	Account Executive	(479) 422-8302	jbooth@esg.email

#### **Account Executive responsibilities include:**

- Continued communication with the customer to understand needs and concerns while ensuring that our solutions are in accordance with their goals
- Discovery of what operation costs are incurred by the customer that can be eliminated in a Performance Contract
- Scheduling of tasks so the customer receives the solution in a reasonable time period
- Preparation of a well-balanced proposal that addresses all the customer's needs and concerns
- Development of a cash flow based on customer's requirements
- Proper documentation so project hand-over to operations is seamless
- Maintaining customer contact throughout installation period to solve any additional needs and concerns that may arise

### **Performance Engineers**

Name	Title	Phone	Email
Phil Neff, LEED AP	Engineering Manager	(785) 727-7736	pneff@esg.email
Jeremy Childers, PE, CEM	Sr. Performance Engineer	(662) 263-9020	jchilders@esg.email
Angelica Wirtz, CEM	Energy Engineer	(314) 449-8607	awirtz@esg.email
Kerwin Brown, CEM	Performance Engineer	(812) 492-3768	kbrown@esg.email

#### Performance Engineer responsibilities include:

- Exceeding customer expectations in technical and economical solutions
- Maintaining full technical understanding of energy and plant/facility operations
- Serving as the ongoing technical resource consultant for the customer
- Performing feasibility analyses of recommendations and associated risks
- Performing energy savings calculations, operational savings calculations, life cycle cost analysis, and establishment of guarantee amounts
- Identifying and working with subcontractors and consultants to ensure the quality of work delivered meets or exceeds the requirements of the job
- Determining and developing the necessary measurements to ensure the energy and operational guarantees to the customer are met
- Serving as communication link for technical information between the operations team and the Account Executive/Program Manager
- Approving equipment before ordered and ensuring that delivery is scheduled

### **Project Managers**

Name	Title	Phone	Email
John Waddle	Project Manager	(615) 209-7171	jwaddle@esg.email
Greg Steele	Construction Superintendent	(615) 961-7672	gsteele@esg.email

#### **Project Managers responsibilities include:**

 Interfacing with Account Executive/Program Manager to ensure prompt and accurate estimates and pricing are consistent with the project goals.

- Creating and maintaining an efficient, effective project work force by organizing an effective project team and providing project development, training, and supervision for each member.
- Developing and maintaining ongoing contact with the customer to ensure clear and consistent communication about the project's progress, additional work, training, and subcontractor coordination.
- Overseeing preparation of software programs and the operations, maintenance, and troubleshooting of sophisticated electronic computerized systems and mechanical retrofits.
- Maintaining responsibility for ensuring that the subcontractors follow all OSHA, Federal, State, and safety regulations.
- Presenting the customer with all necessary documentation.

### **Corporate Support**

#### **President**

Name	Title	Office Telephone	Email
Gregory Knight*	President	(812) 471-5000	info@esg.email

<sup>\*</sup>Corporate Officer

#### President responsibilities include:

- Leading the strategic growth and development of key opportunities within the energy services sector.
- Day-to-day operational responsibility for the company
- Signatory responsibility on all contracts

### **Contracts and Corporate General Counsel**

Name	Title	Office Telephone	Email
Dan Shell*	Vice President	(812) 492-3722	dshell@esg.email
Angie Rawlinson	Contracts Manager	(812) 492-3723	arawlinson@esg.email

<sup>\*</sup>Corporate Officer

#### **Corporate General Council responsibilities include:**

- Ensuring compliance and successful management of all legal affairs, contracts management and environmental, health and safety at ESG.
- Leading key contract negotiations with ESG customers and their legal counsel.
- Managing ESG's surety company relationship and bond portfolio.

#### **Finance**

Name	Title	Office Telephone	Email	
Dan Harsh	Director of Finance	(812) 471-3736	dharsh@esg.email	

#### Finance responsibilities include:

- Managing all ESG project financing processes.
- Working closely with banks, investment bankers, and other financial investors to provide innovative and customized financial solutions.
- Assisting customers in arranging and closing individual financing transactions for specific projects.

### **Marketing & Communications**

Name	Title	Office Telephone	Email	
Meram El Ramahi*	Vice President	(812) 471-5000	mramahi@esg.email	

<sup>\*</sup>Corporate Officer

#### Marketing & Communications responsibilities include:

- Drive communication strategies for direct marketing, media/customer relations, advertising, public relations, and website development
- Maximize management and sales cycle efficiencies via marketing collateral materials and programs
- Execute corporate marketing initiatives, including branding and support external customer communications

#### **Measurement and Verification**

Name	Title	Office Telephone	Email
Brian Clippinger	M&V Director	(614) 561-9335	bclippinger@esg.email
Mary Kaloto, CMVP	M&V Analyst	(812) 492-3713	mkaloto@esg.email

#### Measurement and Verification responsibilities include:

- Defining initial baseline criteria.
- Interfacing with project team to verify the complex details of the project and energy calculation methods.
- Establishing a utility database, based on utility bills and metered data.
- Working with customer to establish measurement and verification criteria.
- Monitoring energy consumption and operating deviations.
- Preparing and presenting audits to customers at negotiated intervals.
- b) <u>Approach to Subcontracting</u>—Describe the types of services (both professional and construction services) that your company offers in-house and the services typically offered through subcontractors.

ESG is a full-service Performance Contractor providing the broadest possible range of Energy Conservation Measures (ECMs). For the most commonly implemented Energy Performance Contract improvement measures (incorporated in the majority of our projects), we utilize a combination of in-house and subcontracted expertise, providing our customers with the most cost-effective solutions while applying the most capable and experienced talent to each of the tasks and responsibilities, which results in a highly successful ESPC program. ESG works with numerous subcontractors and suppliers, both union and nonunion, at the customer's request, utilizing local subcontractors and suppliers.

The table on the following pages profiles ESG's capability and experience with the following areas of expertise and describes the types of services (both professional and construction services) that we offer in-house and the services we typically offer through subcontractors.

	STU	IDIES	DES	SIGN
TECHNICAL CAPABILITY	esnoų-uJ	Subcontracted	In-house	Subcontracted
Lighting	х	Х	Х	Х
ELECTRICAL				
Medium Voltage Distribution up to 69 KV		Х		х
Building Electrical Systems		х		Х
Power Factor Correction	Х	х	Х	Х
Demand Limiting	Х		Х	
Security and Fire Detection		х		Х
HVAC				
Energy Management Systems	х	х	х	х
Chillers	Х		Х	
Geothermal Systems	Х	х	Х	Х
Steam Heating	Х		Х	
Heat Pumps	Х		Х	
Heat Recovery	Х		Х	
VFDs	Х		х	
VAVs	Х		Х	
Hot Water Heating	Х		Х	
CENTRAL PLANTS				
Central Chiller Plants	Х		Х	
Cogeneration	Х		Х	
Coal Fired/Stoker Fired	Х		Х	
Gas/Oil Fired	Х		Х	
Steam to Hot Water Conversions			х	
Package Boilers	х		Х	
WATER CONSERVATION				
Toilet/Shower Replacements	х	х	х	х
Laundry Equipment Upgrades	Х	Х	Х	Х
Pool Equipment Improvements	Х	Х	Х	Х

		IDIES	DESIGN		
TECHNICAL CAPABILITY	In-house	Subcontracted	In-house	Subcontracted	
Sewer Credits	Х		Х		
BUILDING ENVELOPE					
Windows / Roofing	х	Х	Х	Х	
Kitchen Equipment Replacement	х	Х	Х	Х	
Water Treatment		Х		Х	
Sewage Treatment/Collection		Х		Х	
Telecommunications		Х		Х	
Solid Waste Management	Х	Х	Х	Х	
Various "Green Power" ECMs, Renewables, Biomass, Alternate Fuels, Thermal Storage	х		Х		
OTHER SERVICES					
Supply of Equipment from Vendors and Manufacturers			Х	Х	
Engineering	х	Х	Х	Х	
Construction Management Services			Х		
Measurement and Verification	х		Х		
Commissioning		Х		Х	

Total dedication to meeting the needs of customers, both immediate and ongoing, are keys to successful project delivery. Therefore, as the scope of our Energy Performance Contracting projects demand supplemental resources to ensure success, our practice is to be highly selective with our subcontracting partners. ESG carefully selects contracting partners based on project experience, customer satisfaction history, management effectiveness, cost compliance and project timeliness.

We call our team members "Performance Partners" because they are expected to uphold performance levels that eliminate risks to the customer and exceed customer expectations. Our Performance Partners bring specialized expertise in system and subsystem design; equipment selection and trade installation; operation and maintenance; as well as creative project financing.

ESG does not typically pre-select subcontractors to work on projects before contracting with our customer. If it is clear that a subcontractor can bring added value to ESG's proposal, then we will clearly identify the role of the subcontractor to our potential customer.

ESG will make every effort to utilize local contractors and suppliers, with a specialized focus on identifying MBE/WBE organizations, to ensure the project is good for the community, as well as for you. Experience has taught us that the best partners and subcontractors are those that have been providing quality service to you for

years before the contract. Recognizing this, ESG will make every effort to partner and subcontract with those firms that have served you well in the past and have earned the right to be associated with the project.

Another key element of our Subcontractor/Partner Plan is the use of local community professionals, when available. Again, our approach will be to utilize those firms that have earned your respect through past performance and experience. We have found this approach of teaming our professional engineers with local consulting engineers as a highly effective way to design improvements for maximum efficiency and design value.

All aspects of the project are handled directly through ESG. ESG works directly with the subcontractors and suppliers involved in each project to insure a seamless process.

Beyond safety record, financial stability, and experience, we have two main requirements of all of our subcontractors:

- 1. They must be preapproved by our customers to perform work in our customers' facilities; and
- 2. They must demonstrate (contractually) to ESG that they can perform quality work within the schedule required for the project at a fair price.

Early in the process, we provide a list of subcontractors and suppliers that ESG can recommend for involvement with this project. Additional subcontractors and suppliers are likely to be necessary. It is our policy to work in concert with our customers to obtain preferred supplier, vendor, and contractor resources to assemble the most appropriate team and utilize local subcontractors and suppliers.

As stated previously, we apply rigorous criteria in our final selections to make certain our subcontractors and suppliers meet our high standards of performance, reliability, and customer satisfaction.

#### 3b. Arkansas State Construction Requirements

Describe your firm's approach to complying with the Arkansas State licensing and labor requirements.

ESG understands licensing and labor requirements to conduct work in Arkansas such as:

- Verification of state/local trade and business licensing credentials prior to doing business with the subcontractor/vendor;
- Compliance with all federal, state and local labor laws including I-9 employment eligibility, affirmative action, wage and hour laws; and
- Compliance with environmental, health and safety laws (review of contractor safety plans and track records).

ESG also understands that any ESCO wishing to enter into a contract with the State of Arkansas must hold a valid contractor's license issued by the State of Arkansas Contractor's State License Board. Below is a copy of ESG's State of Arkansas Contractor's license good through April 30, 2022. For a full size copy of ESG's State of Arkansas Contractor's license, see 12. Appendix.

	ID #20163
St	ate of Arkansas
Commercial	Contractors Licensing Board
ENERGY SYSTEMS GROUP, LLC 9877 EASTGATE COURT NEWBURGH, IN 47630	
This is to Certify That	ENERGY SYSTEMS GROUP, LLC
is duly licensed under the provi amended and is entitled to pract the following classifications/sp	isions of Ark. Code Ann. § 17-25-101 et. seq. as tice Contracting in the State of Arkansas within ecialties:
BUILDING - (COMMERCIAL & RESIDENTIAL)	
(Commence of Management Ind.)	
This contractor has an unlimited su	nggested bid limit.
This contractor has an unlimited su	aggested bid limit.
This contractor has an unlimited su  fromMay 7, 2021until	April 30, 2022 when this Certificate expires.
	April 30, 2022 when this Certificate expires.  Witness our hands of the Board, dated at North Little Rock, Arkansas:
	April 30, 2022 when this Certificate expires.
	April 30, 2022 when this Certificate expires.  Witness our hands of the Board, dated at North Little Rock, Arkansas:

### 4. COMPANY FINANCIAL STATUS

- 4a. Financial Soundness and Profitability
- a) Financial soundness—provide a description of the financial soundness and expected stability of the company.
- b) Profitability—provide a description of the company's profitability with supporting documentation covering the past three calendar years.

As mentioned in section 2. Company Overview, ESG became profitable in its fifth month of operation and has managed to stay profitable by controlling growth and maintaining focus on satisfying customers through Performance Contracting.

In April 2014, ESG acquired the Federal Business Unit of Chevron Energy Solutions. This acquisition greatly enhanced ESG's capabilities in the U.S. Federal sector, seen as a critical business segment, and has supplemented ESG's presence in the core state and local government market.

In 2019, ESG became a subsidiary of CenterPoint Energy, Inc. (NYSE: CNP) with nearly \$33 billion in assets. Headquartered in Houston, Texas, CenterPoint Energy, Inc. is an energy delivery company with regulated utility businesses in eight states and a competitive energy businesses footprint in nearly 40 states. CenterPoint Energy and its predecessor companies have been in business for more than 150 years. CenterPoint Energy provides natural gas utility services to most of Arkansas. For more information, visit <a href="https://www.centerPointEnergy.com">www.centerPointEnergy.com</a>.

ESG

#### ESG has announced numerous key sales, including:

- Pea Ridge School District (AR) | \$7.4 million
- Vilonia School District (AR) | \$3.2 million
- Anderson County Government (TN) | \$8 million
- Bradley County Government (TN) | \$4.4 million
- City of Murfreesboro (TN) | \$8.5 million
- City of Oak Ridge (TN) | \$2.7 million
- Warren County Government (TN) \$5.8 million
- Franklin County Fiscal Court (KY) | \$5 million
- Kentucky Department of Corrections (Phase 2) | \$14 million
- McCracken County Fiscal Court (KY) | \$3.2 million
- Evansville-Vanderburgh County Building Authority (IN) | \$4.3 million
- Warren County Commissioners (IN) | \$6.4 million
- Fort Detrick Central Utility Plant (CUP) (MD) \$83 million

c) Financial report—attach a financial report summary as an appendix, showing the company's most recent 12-month audited financials including, at a minimum: Balance Sheet, Income Statement, Statement of Cash Flow, and Statement of Financial Conditions. Include the name, address, and telephone number of the preparer.

In section 12. Appendix, please find ESG's audited Financial Statement. Our parent company, CenterPoint Energy's financial statements can be viewed at <a href="http://investors.centerpointenergy.com/investor-relations">http://investors.centerpointenergy.com/investor-relations</a>.

### 4b. Bonding Include responses to the following:

#### d) Current bonding rating (maximum project size firm can bond)

Liberty Mutual, ESG's surety company, carries an "A" bond rating as rated by A.M. Best Company with 75% of bond portfolio rated highest quality and above. On an annual basis, Liberty Mutual reviews with ESG our performance and then determines what our bonding limits will be. Because of our past performance, Liberty Mutual has rendered an opinion that ESG is financially viable and bondable.

e)	Current bonding capacity

Our parent company, CenterPoint Energy, Inc., fully supports ESG's efforts and obligations to customers through performance bonds, letters of credit or similar financial instruments, and through access to many specialty services.

f) Amount or percentage of bonding capacity currently obligated



#### g) Current bonding rate

Rating Breakdown	Contract Price	Rate Per M
		•

#### h) Confirmation that the company is bondable for 100% of a payment bond on a project

As mentioned above, ESG has significant bonding capacity. No bonds have been revoked. A copy of our "Letter of Bondability" is located following in this section. A full size copy may also be found in section 12. Appendix. This letter provides evidence of our ability to provide a 100% project value of a payment.

#### i) Confirmation that the company is bondable for 100% of a performance bond on a project

A copy of our "Letter of Bondability" is located on the following page. It provides evidence of our ability to provide a 100% project value performance bond for faithful performance of the installation and bond covering 100% of the estimated guarantee savings amount over the term of the guarantee

#### j) Letter from a licensed surety as evidence of ability to bond for payment and performance

Letter of bondability provides evidence of our ability to provide a 100% project value performance bond for faithful performance of the installation and bond covering 100% of the estimated guarantee savings amount over the term of the guarantee. A full-size copy of the letter of bondability may be found in 12. Appendix section.

#### **Bonding Company**

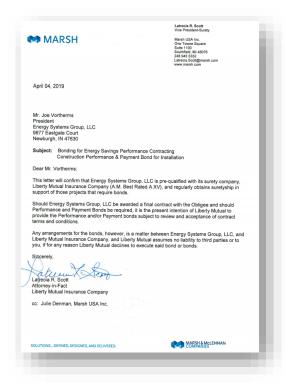
Liberty Mutual Insurance Company (A.M. Best Rated A XV)
175 Berkeley Street
Boston, MA 02117

#### **Bonding Agent**

Marsh USA, Inc. Brian Cook, Attorney-in-Fact 200 Ottawa Ave. N.W., Suite 700 Grand Rapids, MI 49503

Tel: (616) 233-4231 / Fax: (616) 233-4398

Brian.K.Cook@marsh.com





Below is the a sample Certificate of Insurance as evidence of ESG's ability to provide and maintain insurance as documented until final acceptance of the installation portion of a contract.

							Page 1 of 1
ACORD"	CER	TIF	ICATE OF LIAE	BILITY INS	URANC	E [	DATE (MM/DDYYYY) 06/26/2019
THIS CERTIFICATE IS ISSUED CERTIFICATE DOES NOT AFF BELOW. THIS CERTIFICATE REPRESENTATIVE OR PRODUC	IRMATIVEL OF INSURA	Y OF	R NEGATIVELY AMEND, DOES NOT CONSTITUT	EXTEND OR ALT	ER THE CO	VERAGE AFFORDED	BY THE POLICIES
IMPORTANT: If the certificate If SUBROGATION IS WAIVED, this certificate does not confer	subject to t	he te	rms and conditions of the ificate holder in lieu of su	e policy, certain p ch endorsement(	olicies may		
PRODUCER Fillis Towers Watson Midwest, E/o 26 Century Blvd	Inc. fka W	llis	of Minnesota, Inc.	FACTOR PROCESSION	-945-7378		1-888-467-2378
P.O. Box 305191 Washville, TN 372305191 USA			ŀ	ADDRESS: certif:		RDING COVERAGE	NAIC#
						Insurance Company	16535
ISURED					ast Insura	nce Company	26387
nergy Systems Group, LLC 877 Eastgate Court			[	INSURER C:			
ewburgh, IN 47630				INSURER D :			
				INSURER E :			
OVERAGES	CERTIC	CATE	NUMBER: W11770047	INSURER F:		REVISION NUMBER:	
THIS IS TO CERTIFY THAT THE P INDICATED. NOTWITHSTANDING CERTIFICATE MAY BE ISSUED O EXCLUSIONS AND CONDITIONS O	OLICIES OF ANY REQUI R MAY PER	INSUF REME TAIN,	RANCE LISTED BELOW HAV NT, TERM OR CONDITION ( THE INSURANCE AFFORDE	OF ANY CONTRAC D BY THE POLICI	T OR OTHER ES DESCRIBE	ED NAMED ABOVE FOR T DOCUMENT WITH RESPE D HEREIN IS SUBJECT T	ECT TO WHICH THIS
ISR TR TYPE OF INSURANCE	ADD	SUBR	POLICY NUMBER	POLICY EFF (MM/DD/YYYY		LIMI	тв
X COMMERCIAL GENERAL LIABILI						EACH OCCURRENCE	\$ 2,000,000
CLAIMS-MADE X OCC	JR					DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 1,000,000
A X Contractual Liab						MED EXP (Any one person)	\$ 10,000
X XCU			GLO 9243952-06	10/01/2018	10/01/2019	PERSONAL & ADV INJURY	\$ 2,000,000
GENL AGGREGATE LIMIT APPLIES PE						GENERAL AGGREGATE	\$ 4,000,000
POLICY X PRO- JECT LO	c					PRODUCTS - COMP/OP AGG	\$ 4,000,000
OTHER: AUTOMOBILE LIABILITY		+				COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
X ANY AUTO						(Ea accident) BODILY INJURY (Per person)	\$ 1,000,000
A OWNED SCHEDU	LED		BAP 9243954-06	10/01/2018	10/01/2019		*
AUTOS ONLY AUTOS NON-OW				,,	,,	PROPERTY DAMAGE	s
WATES SUFF.	NLY					(Per accident) Comp \$100/Coll	s 1,000
UMBRELLA LIAB OCCI	ID.					EACH OCCURRENCE	s
н н	MS-MADE					AGGREGATE	5
DED RETENTION \$							\$
WORKERS COMPENSATION AND EMPLOYERS' LIABILITY						X PER OTH-	
A ANYPROPRIETOR/PARTNER/EXECUTIV	E NO N/A		WC 9243955-08	10/01/001	10/01/2019	E.L. EACH ACCIDENT	\$ 1,000,000
(Mandatory In NH)		1	WC 9243935-06	10/01/2016	10/01/2019	E.L. DISEASE - EA EMPLOYE	\$ 1,000,000
If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
B COMBINED PROFESSIONAL/POLI	UTION		EOC107126901	10/01/2018	10/01/2019		\$5,000,000
CLAIMS MADE COVERAGE						Aggregate	\$5,000,000
ESCRIPTION OF OPERATIONS / LOCATION his Voids and Replaces Pro							
CERTIFICATE HOLDER				CANCELLATION			
					N DATE TH	DESCRIBED POLICIES BE ( EREOF, NOTICE WILL CY PROVISIONS.	
AUTHORIZED REPRESENTATIVE  St. 4. How							
Evidence of Insurance					000 0010 0	ODD CODDODATION	All -1-L4-
ACORD 25 (2016/03)	1	he A	CORD name and logo are			ORD CORPORATION.	All rights reserved.

### 5. MARKETING APPROACH

Briefly describe your firm's proposed approach to promoting and marketing the AEPC Program both in concert with AEO and in their individual marketing efforts for EPC.

Having developed diverse marketing communications programs for numerous customers, ESG's Marketing Communications team works closely with our customers to customize diverse informational tools such as a project website, educational materials, door hangers, press releases, and bulletins that effectively communicate the positive impact of the energy, environmental conservation and community improvements we implement.

For example, ESG developed the Razors EDGE™ program for the University of Arkansas, whereby a communications program was designed to best align with the University culture and key sustainability initiatives in communicating the accomplishments and benefits of the ESG-University of Arkansas partnership. The 'EDGE' in the program's name is an acronym for "Efficiently Delivery Green Energy'™.

ESG is also well networked on all key social media platforms including Facebook, Twitter, YouTube, LinkedIn and RSS feeds and will incorporate the integration of these social media sites in our communications plan.

Other initiatives include establishing scholarships and internships; preparing tomorrow's workforce through education and leadership development programs such as STEM (Science, Technology, Engineering and Math); advancing our customers' communities through revitalization; and working together to conserve natural resources and energy.

Among our core values as an organization is to give back to the communities in which we live, work, and serve. We are dedicated to giving back to our customers' communities in partnering to promote local economic growth, job creation, education, and environmental stewardship.

Our partnership with the AEPC Program and the AEO will extend beyond the implementation of technologies and solutions. As a company that specializes in energy efficiency, building modernization and sustainable infrastructure initiatives, ESG is well positioned to partner with leadership to best align the project we implement with key infrastructure and education goals.

ESG will also partner with the AEO leadership and media relations team to develop customized press releases, media advisories, and articles in key energy industry publications on both a nationwide and regional basis.



University of Arkansas Razors EDGE Project Website



Town of Niskayuna, NY -Water Resource Recovery Project Ground Breaking Ceremony



City of Montpelier Water Resource Recovery Facility Project Website



Paterson Public Schools, NJ Classroom STEM Instruction



### 6. REPORTING APPROACH

Describe your firm's approach to providing signed copies of contracts and measurement and verification reports to AEO in a timely manner. In addition, the Prospective ESCO shall describe how they will meet the requirements for providing project performance metrics, described in detail in the Program Manual.

ESG has an in-house Measurement and Verification (M&V) department with the necessary experience, resources, and tools required to evaluate, calculate, and measure energy, water, and operations and maintenance savings.

As part of the post-installation support, ESG will conduct regular M&V audits to ensure customers are realizing the financial benefits of the energy upgrades. We follow the International Performance Measurement & Verification Protocol (IPMVP) and customize the tracking to meet the customer's requirements.

We work with our customers during the design phase to secure utility and other government incentives that help lower the overall cost of a project. Many times these M&V reports can be used to satisfy possible utility and government mandated reporting—proving to these entities that the customer is indeed meeting the terms of a particular incentive program.

ESG maintains an open and thorough communication and reporting process with our customers from project selection through the end of the guarantee period. ESG plans to adapt this process to include the AEO and meet all requirements of the AEPC program. These steps include:

1.	Prior to signing IGA contract, Agency to submit to AEO for approval.
2.	After IGA contract between ESG and Agency is fully-executed, ESG to send an electronic copy to AEO in a timely manner.
3.	After ESG completes the IGA and the Agency approves, Agency to submit the IGA to AEO for approval.
4.	If the AEO approves the IGA and the Agency signs a Notice of Acceptance, ESG to submit an electronic copy of the Notice of Acceptance and the IGA to AEO.
5.	After ESG and the Agency negotiate the Energy Performance Contract (EPC) and secure financing, Agency to submit the EPC to AEO for approval.
6.	If the AEO approves the EPC, ESG to submit an electronic copy of the fully-executed EPC to AEO.
7.	ESG and the Agency submit a project profile to AEO for program marketing efforts.
8.	After implementation and commissioning of the EPC scope, Agency and ESG request review of construction completion by AEO.
9.	If the AEO approves the completion and the Agency signs a Notice of Acceptance, ESG to submit an electronic copy of the Notice of Acceptance and the IGA to AEO.
10.	ESG submits a Post-Installation Report to AEO, complete with as-built costs and savings.
11.	The measurement and verification (M&V) evaluation period shall begin the first full month after the date of final acceptance. Ninety (90) days after the completion of the evaluation period, ESG provides an annual report outlining the energy savings and sends a copy AEO.

12.	After Agency and AEO provide comments on the M&V Report, ESG finalizes the report and sends an electronic copy to the Agency and AEO.
13.	In addition to the M&V report at the end of the first performance year, ESG to submit a project case study to AEO for marketing purposes.
14.	ESG to support AEO in the promotion of the AEPC program through AEPC Project Metrics and Marketing reporting. ESG will provide and update these reports as information becomes available for each project.

ESG has the experience, trained staff, and general manpower to assist with all needs of the facility owner and will help make the process as simple as possible. Leveraging ESG's M&V reporting, as described above, and working with our auditing engineers, we can assist the facility owners with reporting that is in line with most government, utilities', and other regulatory agencies' reporting criteria.

### 7. TECHNICAL APPROACH

#### 7a. Investment Grade Audit

Provide a description of the process your company uses to develop a typical audit in the types of facilities that will participate in the AEPC Program. Note any changes that will be made to comply with requirements of the AEPC Program. Provide a recent sample investment grade audit as an electronic attachment. The audit should be representative of a recent energy efficiency project in a government facility. Provide verification that the sample audit was conducted by the members of the company's team who will be participating in the AEPC Program.

Above all, ESG approaches each Investment Grade Audit (IGA) as a collaborative effort. In order to provide the most meaningful solution for the Agency, it is imperative that we have input from their leadership and staff concerning the priorities for the program. With a good understanding of the Agency's goals, ESG's IGA can focus and direct all efforts toward the best set of customized solutions to meet those goals.

We will combine the "Best Practices" of ESG with the specific expectations and requirements of the facility staff. The outcome of this effort will be a high level of satisfaction with ESG's assessment and audit process and printed output. The results of the audit identify energy and operations-based Performance Contracting opportunities, as well as deferred and preventative maintenance, comfort, safety, regulatory, and capital planning issues that

#### **ESG'S APPROACH**

- Partnership
- Best Practices
- Jointly Defined Process
- Fine-Tuning
- Delivering Greatest Value

can be addressed proactively. ESG has a very experienced and qualified in-house engineering and design team that will work closely with the Agency's team and any strategic partners appropriate for the project. ESG's auditing activities will center largely on the exploration of four areas through which energy and operational savings are achieved.

- How are your utilities (electric, gas, water, sewer, other) being purchased and how can we leverage our resources to improve these costs?
- How are your energy related utilities being converted or transformed (electric or gas to steam or hot water, electric to chilled water or refrigerant, etc.) and is this being done in the most appropriate and efficient manner?
- How are your terminal systems (air-handling units, fan coils, unit vents, lighting systems and associated control systems) utilizing energy to create a safe, comfortable, and efficient environment?
- How are you currently maintaining and supporting the systems and what are the operational and financial challenges associated with providing this service?

Throughout the IGA, ESG will provide interim information and communications and hold status meetings with the Agency's staff to ensure energy conservation measures (ECMs) identified and under development are within the framework of the scope of work that the Agency wishes to consider as part of the project.

### **IGA Process**

#### **Initial Meetings**

The first step during the IGA phase will be to meet with Agency facility staff to review ESG's standard approaches to conducting audits and assessments, balance our approach with the Agency's needs, then define a specific approach that best suits the situation. Items of discussion generally include: facilities and infrastructure to be evaluated; existing technical and operational challenges with the existing systems; points of contact, protocols, and logistics to be used for site surveys and communications; schedule of anticipated activities for ESG to complete the IGA; and Agency expectations for the deliverables as a result of the IGA (such as, acceptable term for financing and project payback).

#### **Project Development Agreement (PDA)**

ESG will memorialize these expectations, deliverables, and all other pertinent elements into a Project Development Agreement (PDA) for the IGA. The PDA is executed by both the Agency and ESG. The fee for the IGA is agreed upon by both parties and included in the PDA. The IGA fee will only become due and payable by the Agency if ESG meets the PDA criteria and the Agency chooses not to enter into a Performance Contract with ESG. If the Agency enters into a Performance Contract, the fee for the IGA can be included in the total cost of the project, thereby requiring no upfront expenditures by the Agency.

As participants in the AEPC program, ESG and the Agency will use the most current AEPC IGA and Project Development Contract in place of the PDA document referenced above. The fee for the IGA will be negotiated using AEPC's predefined pricing variables. Upon agreement between ESG and the Agency, the IGA and Project Development Contract will be submitted to AEO for approval.

#### **Request for Information**

For ESG to begin the IGA, we will request information, if available; such as: facility information including square feet, age, typical uses, occupancy hours, any special areas and uses; access to utility account numbers and service providers for electric, natural gas, water and sewer; building plans for original construction, additions, and renovations; equipment lists, as-builts, or other available documentation for HVAC and Building Automation Systems (BAS); information pertaining to planned expansions, renovations, changes in use, or capital equipment replacements; information pertaining to maintenance agreements and equipment service and repair histories for HVAC mechanical systems, building automation systems, electrical systems and lighting equipment; and historical expenditures (previous 12-24 months) for repair and replacement materials such as lamps, ballasts, HVAC equipment, etc.

#### **Utility Analysis and Benchmarking**

The first technical step in the IGA is for ESG to perform a utility analysis of the Agency facilities. The utility analysis allows ESG Performance Engineers to understand the current energy consumption, usage patterns, and the related costs. ESG typically benchmarks the facilities based on cost and consumption per square foot. This allows ESG and Agency staff to rank the entire portfolio and highlight the worst-performing buildings.

Our preference is to complete the utility analysis prior to beginning the on-site audit. Information gained from the utility analysis provides ESG engineers with valuable information on how the facilities and systems are currently operating and where physical or operational improvements could possibly be made.

#### Surveys and Evaluations

ESG's audit and assessment process allows us to become deeply engrained in the original design, current operations, and current equipment conditions of each building in the project. An integral part of this step is interviewing members of the facilities and maintenance staff. Next, ESG will gather information and document the existing conditions through a series of on-site assessments, surveys, inspections, and/or spot/short-term metering activities.

Operating Staff Survey — an integral part of the IGA entails interviewing members of the Agency's facilities and maintenance staff. These interviews provide an in-depth view of the facility's current state of operation and areas that need improvement from the people who are most familiar with the operation of the facilities. In our experience, some of the most useful information is discovered through communications with building occupants and operators; such as: how a building is actually operating; if there is historic problems with a building in terms of comfort, or other concerns; and why a building may be wasting energy and operational dollars. ESG will interview as many people as possible that maintain, operate, and work in the facilities to understand current operations and functionality.

Facility and System Auditing Procedures — In order to thoroughly understand the operational characteristics of the facilities and systems, we will then gather information and document the existing conditions through a series of on-site assessments, surveys, inspections, and/or spot- or short-term metering activities. ESG uses a variety of special metering and test equipment to monitor current use and activity within a facility. Typically, we use data loggers to trend occupancy data, light meters to determine lighting levels, Volt-Amp meters to take motor readings on fans and pumps and other testing equipment. On occasion, we will install sub-meters to determine the use of a piece of equipment for a specified period of time. All of this information helps us to more specifically determine the savings potential within a building.

Building systems that are analyzed generally include: lighting systems and controls, HVAC systems and controls, water and wastewater consuming systems, building envelope, and power quality. The operational areas of evaluation generally include: areas and uses; occupant density and time periods; space conditions and requirements for each operating period and season; equipment operating practices; and equipment problems or outages. Specific procedures include:

- If blueprints are available, ESG will typically review the major electrical, mechanical, and plumbing systems so that our surveyors are oriented when they are physically at the building.
- If a previous engineering study is available, ESG will utilize the summary data to learn: how each facility is constructed and how the mechanical systems operate. Major deficiencies listed will also be noted and a determination made if they have been addressed.
- Based on the comments of staff familiar with the buildings and all preliminary analysis as outlined above, ESG engineers will begin an initial survey with a sense of the key items that need to be reviewed, understood, and documented.
- Typically, ESG will break the building down by the main systems and utilize survey forms to capture the big picture of how
  each aspect of the building is functioning and what key opportunities exist.
- ESG will interview as many people as possible that maintain, operate, and live/work in the facilities to understand current operation and functionality. ESG uses a variety of staff interview/survey techniques to capture as much relevant data as possible in a short time.

- ESG makes extensive use of digital cameras to document what was surveyed and to be able to quickly review this
  information back in the office. The entire team uses the documentation to help evaluate potential solutions.
- Lighting (option 1- general opportunity assessment) Each building is reviewed for average lighting power density (LPD, in
  watts per square foot) in each of the unique areas of the building. Likely retrofits are noted for each unique area and a target
  LPD is established. Depending on the amount of retrofit versus new fixtures, an appropriate budget cost per square foot is
  applied.
- Lighting (option 2 detailed opportunity and load analysis) Based on the premise that each building with lighting opportunity will ultimately be included in the "Final Proposal" because of the typically strong payback of lighting work, ESG will conduct an investment grade audit to determine the specific lighting retrofits, detailed project costs, and also the specific KW / KWH that the building's lighting contributes to the overall electrical bill. This level of electrical use data is very helpful in determining the overall picture of the facilities electrical usage pattern.
- HVAC system overview A determination is made on how the building's heating and cooling is produced and distributed.
- Holistic facility loop analysis Analyze heating and cooling loop distribution and seek ways to optimize performance.
- HVAC scheduling control systems are evaluated and staff are interviewed to determine how the HVAC equipment is operated and scheduled.
- HVAC functionality A determination is made as to the level of comfort and ventilation issues that exist as well as the level
  of repair that takes place to keep the building running.
- Water conservation all equipment and systems that have a major impact on water consumption and discharge rates are evaluated. Losses through leaks, evaporation, excessive flow rates, etc. are investigated.
- Building envelope roofs, doors, windows, and exterior siding are evaluated for problems associated with moisture intrusion, leaks, and any air balance-related problems.
- Renewable Energy Analyze ways to help promote renewable energy programs, such as solar-powered transportation or anaerobic digestion using local organic waste.

#### **Energy Conservation Measure (ECM) Development**

With building profiles established, energy retrofit options are evaluated against the energy cost savings that they produce. Initially, all potential ECMs are considered separately, with their individual economic attractiveness determined by calculating simple paybacks. However, ECMs are selected from the list and evaluated together in order to determine their system interactions and aggregate energy savings.

These ECM's begin as simple concepts and are then developed in greater detail. This involves:

- Calculating energy and cost savings for each individual ECM and, in addition, the interactive effects of combining ECMs
- Performing engineering calculations and life cycle cost analyses in order to select the type and size of equipment and set performance requirements
- Determining the cost and availability of specific equipment
- Inspecting the building's layout, construction and ability to accommodate new equipment
- Pricing of subcontract work



- Determining costs for the design and installation of the ECMs
- Designing an appropriate measurement and verification (M&V) strategy for each ECM

ECM Savings Calculations — Our IGA commonly addresses the impacts of water conservation measures, lighting upgrades, electricity and fuel consumption and demand reduction, equipment efficiency upgrades, analysis of alternate billing rate structures, and renewable energy technologies. Since ESG's projects are backed by an annual energy-savings guarantee, it is extremely important for our project engineers to be thorough and accurate in calculating the financial savings attributed to each ECM. To that end, we use a variety of proven and industry-accepted procedures for calculating energy savings. Among the various methodologies employed for calculating energy savings, the most common methods utilized by ESG are spreadsheet-based calculations and total building modeling.

For some ECMs, straightforward spreadsheet calculations can be performed to determine the associated energy savings. These calculations are used to evaluate the performance of ECMs that can be isolated from the rest of the facility and incorporate ECM-specific information. As a basis for calculating savings, ESG uses widely recognized and rigorously tested and approved engineering formulas. These calculations are based on industry-accepted practices for energy engineering, methods established by the Association for Energy Engineers (AEE), standards produced by the American Society of Heating Refrigeration and Air-Conditioning Engineers (ASHRAE), American Water Works Association (AWWA) and other relevant standards depending on the measures being assessed.

Where more extensive interaction is expected, ESG utilizes building modeling software to calculate the impact of the proposed ECMs. eQUEST is an extensive Windows-based building simulation software tool interface for the DOE-2 engine that employs the hourly analysis method. This tool utilizes the recommended procedures and calculations as established by the Lawrence Berkeley Labs energy group and widely tested and confirmed throughout the industry to simulate heating and cooling loads. eQUEST has been widely used by the energy industry to perform energy analysis, energy verification, load studies, understand the impact of different rate structures, and prepare incentive packages.

The next step in calculating savings for a facility involves an overall analysis for ECM interactions. This process involves checking each ECM to verify that its savings are not already included under another ECM or that the ECM causes additional energy to be spent elsewhere in the building. This eliminates the possibility of "double counting" any savings or projecting unrealistic levels of savings. All buildings must ultimately pass a "reality check" for the percent of savings calculated for each utility analyzed. This allows us to adjust any calculations that go beyond a realistic cost per square foot, BTUs per square foot, or gallon usage relative to meaningful historical and project specific parameters.

Finally, placing a monetary value on the energy savings calculations requires ESG to apply the price of each utility consumption or demand unit (kWh, kW, KGal, thermal unit BTU, etc.) to the calculated reduction. The price of energy, water/sewer, gas, or any other consumed utility is provided in the utility provider's rate schedule. Where appropriate, ESG can also utilize a simplification of these utility rate structures. In this process, marginal prices are used to consider all aspects of billing affected by metered amounts, such as consumption charges, demand charges, transformer credits, power factor, demand ratchets, and early payment discounts. ESG, together with the Agencies, make these determinations at the beginning of the process. The rates to be applied and the computational method are mutually agreed upon so there is no ambiguity to the bottom-line results. The basic formula used is:

Energy Unit Reduction x Agency's Utility Tariff Rate = Dollars Saved (EUR x CUTR = \$ Saved).

ESG will also discuss Operation and Maintenance (O&M) costs with the Agency staff and will perform a thorough review of how those costs may be impacted by the various ECMs. The process of determining acceptable O&M savings requires a joint evaluation between ESG and the Agency using specific historical purchasing and expenditure data. ESG will review maintenance records, related cost accounts, purchase orders, vendor invoices, and outsourced service contracts to determine accurate O&M costs historically incurred. We will then quantify the level of savings that will be applicable based on the specific equipment, systems, and services that will be put in place under the Performance Contracting program. Typically, O&M savings for replacement materials such as lamps and ballasts have a higher level of savings in the first few years and taper off over the term due to life expectancy of these systems. ESG will make improvement recommendations that provide the highest net present value based on total cost of ownership over the life of the equipment or systems. These efforts result in a mutual agreement on the appropriate agreed-upon savings associated with the Performance Contract.

Design Development — ESG utilizes schematic design and design development procedures to evaluate each ECM for cost and constructability. Upon final selection of the scope and projects to be implemented, ESG will then finalize all design necessary for any required bidding process, permitting, and to ensure compliance with local regulations. ESG may perform specific elements of the IGA in-house, through a subcontracting/consulting partner, or a combination thereof. However, all preliminary and final ECM review and analysis (technical and financial) is performed directly by ESG's Project Engineering Team. Whether we perform the functions in-house or outsource to a project partner, ESG will maintain single-point accountability to the Agency for the technical and financial performance of the program.

#### **ECM Selection**

After all ECMs have been developed, ESG will provide a "menu" of the best measures that can be selected and deselected from the total project in order to choose a package of ECMs that best meets the Agency's project objectives. ESG will work with the Agency to determine the optimal project scope and revise the final ECM package and financial data as needed.

Lighting system improvements, air distribution system modifications, and cooling and heating system retrofits generally show attractive payback opportunities. However, capital improvements such as major mechanical redesigns and building envelope improvements usually require longer terms to pay for themselves. Therefore, ESG will seek to combine the maximum number of longer payback improvements with shorter payback improvements to achieve a project that provides the most value to Agency working within the financial requirements established by the Agency. Finally, all measures will be reviewed and coordinated with the Agency to ensure minimal disruption to their daily activities and to eliminate any negative effects on their primary mission.

Typically this will be conducted during a workshop in which **Agency staff can fully participate in the selection process**. An interactive ECM Matrix will denote ECM description, cost, and the savings (financial benefit) for each ECM. The savings will be detailed by all affected energy types, operational savings, and capital cost avoidance. The financial benefits may also include any applicable utility rebates, savings from rate conversions, or other incentives that have been identified for a specific ECM. Each ECM will denote simple payback in years (project cost / project savings).

In conjunction with the ECM Matrix, a Cash Flow Analysis will be provided to demonstrate the financial performance of the various ECM selections. The Cash Flow will be formulated using the total project installation cost (the total of the ECMs selected by the Agency), the annual cost of the measurement and verification services (including an annual escalation factor used during the project term for these services) and any agreed-upon utility or operational cost escalation factors. The Cash Flow will incorporate the total financing term (in years) and the

interest rate for financing the project. The Cash Flow will illustrate, by year and cumulatively over the term, the project costs (principal and interest, if financed) and support service costs less the project benefits.

#### **Investment Grade Audit (IGA) Deliverables**

As a result of the IGA, the Agency can expect ESG to provide the following documents and other Agency required documents, which become the basis for the development of the Performance Contract Agreement:

- Detailed Scopes of Work for the energy and operational improvement measures and firm pricing
- Guaranteed utility savings for each ECM
- Reasonable and agreed-upon (by Agency staff) operational savings attributable to the improvements and services recommended
- Recommended measurement and verification plan and cost
- Project installation schedule; and details regarding financing rate and term
- Other project incentives, such as grants and rebates that may be applicable to the project or portions of the work.

The IGA will be submitted to the Agency for review. If satisfied, the Agency will submit the IGA to AEO for approval. Once the AEO reviews and accepts the IGA, the Agency will then decide whether or not to move forward with implementation of the ECMs.

#### Sample IGA

A sample IGA may be found in section 12. Appendix.

#### 7b. Standards of Comfort and Construction Specification

Provide a brief description of the standards of comfort the company generally uses for light levels, space temperatures, ventilation rates, etc. in the facilities intended for the AEPC Program and any flexibility for specific needs of the public entity.

Included within most IGAs and subsequent contracts, ESG and the Agency agree upon hours and practices for which the effected systems will operate. It is not ESG's practice to dictate the operating conditions for which the Agency will operate since the Agency still needs to fulfill its core responsibilities. ESG typically defines ranges within the contract that the Agency has agreed to for temperature settings and normal hours of operation. In the event of emergency, special event, or other "short-term" need requirement, the Agency will operate their facility as required with the understanding that the facility will return to normal operation as soon as possible.

All of ESG's recommended Energy Conservation Measures (ECMs) will be designed within modern professional guidelines. For instance, lighting will be in accordance with IES (Illuminating Engineering Society) standards. Lighting levels are designated as foot-candle readings. ASHRAE Standard 55-2013 will be used for all space comfort guidelines for temperature, humidity, and air velocities. Ventilation rates will be within the guidelines set forth by ASHRAE standard 62.1-2016. The standard prescribes ventilation airflow rates per occupant and per square foot of floor area. In addition, ESG works with key facility stakeholders to fully understand any special needs or requirements of the spaces which may be above and beyond the industry standards and guidelines. Under the AEPC program, these stakeholders will include the AEO, which will review ECM design standards during the IGA, Contract Negotiation, and Construction phases.

#### 7c. Baseline Calculation Methodology

Provide a brief description of the methodology normally used by the company to compute the baseline of energy and water use for a facility. Include a discussion of how the public entity is engaged for development of an agreement on the baseline.

Measurement and Verification (M&V) is the process of using measurements to reliably determine actual savings created within an individual facility by an energy management program. Savings cannot be directly measured since they represent the absence of energy use. Instead, savings are determined by comparing measured energy use before and after implementation of a project, making appropriate adjustments for changes in conditions. The "before" case is called the baseline; the "after" case is referred to as the post installation or performance period.

The baseline represents the monthly utility consumption that would have occurred in the absence of energy conservation measures (ECMs). This consumption is calculated by correlating past utility bills to observable variables and projecting that correlation into the future. Typically, this is achieved through a correlation with past weather conditions and usage variables such as hours of occupancy.

ESG establishes the baseline variables based on the "typical" operation of the facility for a period of one year. Comprehensive audits and assessments performed by ESG are required to gather the base year information to establish the baseline from which results can be determined through the M&V process. The required information is generally gathered, recorded, and documented through a series of audits, assessments, surveys, inspections and/or spot/short-term metering activities. The types of information required include the following:

- Energy consumption and demand profiles
- Occupancy type, density, and periods
- Space conditions for each operating period and season
- Equipment inventory (nameplate data, location, condition) and operating practices

ESG and the Agency must agree on which variables are relevant and how the baseline is calculated using those variables. Baseline information and data pertinent to the estimation of cost and energy savings that accrue from the implementation of the Performance Contract which cannot be quantified, or are not economically feasible to quantify by use of measurement, will be defined by mutual agreement between ESG and the Agency.

#### 7d. Adjustment to Baseline

Provide a brief discussion of typical factors that can impact the calculated baseline and the company's general approach to adjusting the calculated baseline if one or more of these factors are present. Include how the public entity is involved for agreement on any adjustments.

The baseline may need to be adjusted to equalize the parameters of the current year so that an accurate analysis can be performed and valid savings can be measured. In essence, the adjustment process shows what the costs and usage would have been in the base year, under the current conditions, for an "apples-to-apples" comparison. Adjustments to consumption baseline figures are typically available for the following types of changes:

- Standardize for the Number of Days in a Billing Period
- Normalize the Differences in Outdoor Temperature Through Degree Days
- Changes in Facility Occupancy and Use
- Additions or Deletions of Energy-Using Equipment



- Additions or Deletions of Square Footage
- Changes in Energy Prices and/or Rate Structures

ESG uses EnergyCAP®, a computerized energy accounting database, to track cost and consumption during the guarantee period. Once a baseline is established and entered into the program, EnergyCAP® uses this as the benchmark of contract performance.

EnergyCAP® is a utilities management software tool used to summarize and report energy use for multiple meters, buildings, and cost centers common to a single organization. Energy and Demand information for a representative period (up to three years) for all utility meters affected by the Performance Contract will be regressed against weather data purchased from the local National Weather Service reporting station, to result in a composite "base year." This information will be used as the basis for computing the cost avoidance (guaranteed energy savings) throughout the term of the agreement.

Numerous factors can affect energy savings during the term of a contract. These factors include weather, occupancy, operating hours, equipment schedules, equipment maintenance, and equipment loads. How adjustments are made to the baseline, if post-installation conditions are different than baseline conditions, is dependent upon the M&V Option being implemented.

After EnergyCAP® adjusts for weather and billing period, it allows additional adjustments to be made for items such as changes in equipment or occupancy (e.g., substantial changes in facility use, removal of or addition to existing equipment, or changes in operating hours).

ESG typically has a requirement for the Agency to notify ESG within fifteen business days of any significant changes in facility operations, occupancy levels, hours of operation, structure, or equipment; or any other changes that are reasonably expected to affect energy use by more than 5%. The effect of such changes on the guaranteed energy savings amount will be monitored through the energy monitoring systems and savings calculated through engineering analysis by ESG. All adjustments are reviewed with the Agency for approval.

Once all adjustments are taken into account, EnergyCAP® produces the new baseline units of energy (adjusted baseline). Next, this energy result is run through the rate schedule to determine what the adjusted baseline cost would be using the individual meter's rate schedule.

## 8. COMPANY SCOPE OF SERVICES

Provide a brief description that highlights your firm's capabilities to provide services for the following items. Include as many as possible to validate the firm's capabilities.

ESG offers a comprehensive range of Performance Contracting Services to our customers that encompass all aspects of utility analysis, engineering and design, building upgrades, facility operation and maintenance, performance monitoring, measurement and verification and ongoing training and support. The following information shows the range of services that ESG can provide to the Arkansas Energy Performance Contracting Program.

ESG's extensive list of highly satisfied customers substantiates our capabilities to perform and fulfill the financial guarantee terms and duration of a Guaranteed Energy Services Contract. The willingness of our customers to share with their peers the positive experiences and results concerning our Energy Services Performance Contracting (ESPC) work is a source of pride for ESG. It is reflective of the close bonds formed by working successfully together to meet and exceed established objectives. Since our inception, ESG has implemented over 700 energy efficiency and facility infrastructure improvement projects with a total value in excess of \$ 3.2 billion for more than 400 customers including Local, State, and Federal Governments; K-12 Schools; Colleges and Universities; Healthcare and Veterans Affairs Medical Centers; Wastewater Treatment Plants; Airports; and Military Bases. Energy Savings Performance Contracting (ESPC) is ESG's core business. This work has been completed or is in various stages of completion in Arkansas, Illinois, Michigan, Missouri, Texas, Kentucky, Tennessee, Indiana, and other Midwestern, Northeastern and Southern States.

Our outstanding results and achievements confirmed by our overwhelmingly positive customer evaluations and testimonials (the basis for ESG's strong, continual corporate growth), the awards (Local, State, Federal, and Industry-related), and recognition we received for our outstanding project results further demonstrate our qualifications.

The diversity and broad-based nature of our implemented projects provides further confirmation of our qualifications to "cover the bases," not only in terms of the standard solutions set of Energy Conservation Measures (i.e., HVAC upgrades, energy management systems, lighting, water conservation, etc.), but we go beyond with technical expertise and experience in the less common solutions set (i.e., thermal storage, alternate fuels, etc.), and finally into the expanded solutions set of technology and infrastructure improvements not commonly addressed by others (i.e., central plants, telecommunications, water treatment etc.).

ESG provides the complete continuum of energy services. Through our core business of energy performance contracting, we provide comprehensive design-build energy and infrastructure solutions where guaranteed savings from energy, operating and capital budgets are used to finance capital improvements. We also provide thorough

"We were very impressed by the original plan that was presented by ESG and even more impressed by the implementation of the badly-needed energy conservation measures within our campus buildings. It comes as no surprise we are 'overachieving' on our energy savings as initiated by our partners and now being operated on a daily basis by our campus utility/facility operations and maintenance teams. I am confident that we will continue to benefit from this project for many years to come."

### Mike Johnson

Associate Vice Chancellor for Facilities

University of Arkansas <u>Fayetteville</u>, Arkansas

Investment Grade Audits (IGAs) in order to develop the strongest performance contracting programs for our customers.

#### **SERVICES**

- Design-Build
- Engineering
- · Operations & Maintenance
- Facilitate Project Financing
- Construction Management
- · Project Management
- Measurement & Verification

#### **SOLUTIONS**

- Energy Efficiency
- Energy Supply
- Energy Distribution
- Waste-to-Energy
- Renewable Energy
- · Water & Wastewater
- Sustainability Planning

#### **CUSTOMERS**

- Local Government
- K-12 Schools
- State Government
- Federal
- Healthcare
- Corrections
- Aviation

ESG is highly qualified technically, financially, structurally, and philosophically to serve as your preferred solutions provider with the ability to provide you with the most cost-effective solutions while applying the most capable and experienced talent to each of the tasks and responsibilities. Programs are customized to our building owner's needs with ESG generally assuming responsibility for:

- Identifying Savings Opportunities
- Financing
- Engineering and Design Services
- Project Management
- Contractor Selection and Equipment Procurement
- Guaranteed Savings which will Fund Improvements
- Maintenance and Operations Services
- Ongoing Training and Support
- Strategic Energy Master Planning

### 8a. Energy Systems in Buildings

We consider ourselves to be a full-service performance contractor and include that among our core competencies:

### **Central Plants**

ESG has the ability to design and install various Central Plant options. Some we have done in the past include, Chiller Plants, Cogeneration, Coal Fired/Stoker Fired, Gas/Oil Fired, Steam-to-Hot Water Conversions, and others. In addition to building central plants, ESG's Operations Services team currently provides operational and maintenance services for four central plants and can provide this service for our Agency customers.

## **Control and Building Automation Systems**

ESG does not have an exclusive relationship with any one control contractor. This enables us to select a contractor and system based on what best suits the equipment and needs of the Agency.

## **Daylighting**

ESG utilizes daylighting whenever the situation is found to be feasible and economical. An effective daylight harvesting control system saves energy while being virtually unnoticed by occupants. In addition to installation of the daylighting technology, we also help the customers apply for possible additional incentives from their local electric utilities.

#### **Distributed Generation**

ESG has designed, constructed and operated full-service energy centers that provide electricity, steam, and chilled water. Facility types served include medical centers, schools, and military facilities. See below for capabilities related to distributed renewables.

## **Fuel Switching**

ESG has vast experience taking advantage of fuel switching opportunities. We have generated savings for customers by assisting in establishing programs and training personnel. As mentioned in this response, ESG prides itself on being 'agnostic' when it comes to solutions. We do not manufacture any proprietary technology. We are not tied to any one solution or fuel source so we look for best value for the customer when it comes to the right fuel for the right solution. ESG is a sister company to CenterPoint Energy Services (CES). CES has a large and longstanding market on the One Gas utility system that could provide an immediate home for the RNG produced. One of the benefits of selecting ESG is the fully integrated capability to take the raw methane from the, convert it to RNG, and manage all aspects of the natural gas interconnect with One Gas.

### **Heating Systems**

ESG has retrofit or replaced virtually every heating system available. Our engineers will evaluate what system best suits your building and will be the smartest fit in terms of life cycle costs.

### **Indoor Air Quality**

ESG has extensive experience designing and implementing IAQ (Indoor Air Quality) strategies that minimize energy impact. ASHRAE Standard 62.1 is the primary ventilation standard used. In addition, ESG ensures that air systems are properly balanced with respect to the outdoors to avoid over-pressurization.

#### **Kitchens**

ESG has implemented ECMs in kitchens ranging from demand-controlled ventilation (DCV) with variable speed exhaust fans to full kitchen remodels. ESG also has experience using organic waste, such as food waste, as a substrate in an anaerobic digester to generate energy.

### **Laboratories**

#### Laboratories, Clean Rooms

ESG has implemented various strategies to conserve energy and improve operation in laboratories and clean rooms. Fume hood operation and control has been a source of great savings on our jobs. An example project is one we implemented at the University of Arkansas, a \$3.5 million modernization and facility improvement program for their John W. Tyson Center of Excellence for Poultry.

#### **Computer Laboratories**

ESG has expertise in working both with computer labs and data center energy efficiencies. In terms of computer labs, we typically look at plug load management, time of use scheduling (ensuring systems are off when not in use). Within computer data centers, solutions are more complex and can include air flow monitoring, aisle containment, server consolidation (including virtual server set up), and the use of renewables to assist in overall power consumption. We can also assist with power redundancy like co-gen systems to ensure reliability and uptime.

## Laundry

ESG has used various approaches with laundry facilities to save water, energy, chemicals used by equipment, and determine if the proper utility type was being utilized.

## **Lighting Systems: Indoor and Outdoor**

ESG implements lighting solutions on the majority of its projects. Company engineers stay abreast with the latest technologies and strive to meet all ASHRAE, IESNA, and local codes.

## Renewables (geothermal solar-electric/thermal, wind, biomass)

### Solar-Photovoltaic (PV)

ESG has designed and installed numerous solar PV systems. These installations have been ground-mounted, roof-mounted and carport structure systems. These systems could be as small as 100kW and can scale to several megawatts in size. As part of the installation, we also implement energy monitoring technology to demonstrate solar production versus grid supplied power.

Specific to schools and universities, we can help create classroom curriculum utilizing the solar technology and monitoring systems; getting students, parents, and other stakeholders involved in the school green initiatives.

We also coordinate the financing for the customer, whether it is either a capital acquisition (Design/Build) or a third-party ownership (i.e., a Power Purchase Agreement)

#### **Solar Thermal**

ESG has designed and implemented numerous solar thermal projects. The two primary applications have been for pool heating and domestic heating. Typically these would be either ground-mounted or roof-top mounted systems.

#### Geothermal

In terms of geothermal, ESG has experience in the installation of ground-source heat pumps (GSHP). We can work with customers on both the design and implementation of the system.



### Wind, small-scale or large-scale

ESG has designed and implemented wind systems for our customers. Typically this has been done on smaller scale systems due to the lack of adoption of large scale systems with our typical customer base (municipalities, schools, and government agencies). Similar to solar PV installations, we also install monitoring systems and can help in stakeholder training and curriculum development. Also, financing can be arranged in either a 3rd Party Ownership or in capital acquisition.

#### **Biomass**

ESG has a proven track record in building and operating several types of biomass plants. The projects include anaerobic digesters, landfill (methane) gas capture (LFG) and gasification plants. We have been recognized nationally for several of these projects. Applications include:

- Waste Gas-to-Power (kWh)
- LFG-to-CNG Refueling Stations
- LFG-to-Pipeline-Quality Gas

#### **Biosolids Management**

Landfilling biosolids produced by wastewater utilities is a major risk to municipal utility operations and producing at least a Class B biosolid that can be legally land applied, or a Class A biosolid that can be land applied as well as dried and used as a fertilizer and soil amendment in parks and greenways or distributed to the public for residential use can be a major risk mitigating and revenue generating strategy for ESG's municipal customers. The disposal and management of biosolids for beneficial reuse is a complex endeavor that carries substantial regulatory compliance requirements and public relations issues, and necessitates the coordination of multiple private parties including haulers, applicators and farm owners. Storage of cake during wet weather or frozen ground presents additional challenges. ESG can provide guidance or turn-key management services for beneficial use programs of all kinds. Fore knowledge of some of the pitfalls of beneficial use programs can ensure regulatory compliance and identify and prevent negative public relations issues. These services can provide our clients with operational and budgetary certainty while freeing up valuable resources for the daily operation of the facility.

### **High Strength Waste (HSW)**

Currently, ESG has guaranteed millions of dollars in organics revenue to municipal utilities over the life of their contracts. ESG's ability to connect organics generators and off takers is unmatched in the industry. We will harvest existing relationships with organics generators and haulers but also cultivate new relationships with targeted sources willing and able to become organics suppliers to our customers. Our goal is to obtain formal commitments as early as possible, as commitments will impact technology selection, design and sizing. Our support for organics also continues through construction and into operations, as we will work continuously with our customers to maximize the economic value of their assets.

#### Renewable Natural Gas (RNG)

ESG has designed and constructed high BTU, RNG plants for upgrading biogas to pipeline quality natural gas. Combined with our sister company, CES, experience in the RNG to RINs market, ESG can offer a complete turnkey solution to take the biogas from anaerobic digestion, deliver it to an end user as vehicle fuel, and help our customers realize significant financial benefits.

ESG works with CES to determine the most beneficial disposition of biogas from our customers' anaerobic digestion operations to return the greatest value to them. ESG/CES is the only company that can:

- Submit the WWTP RNG Registration documentation to the EPA for participation in the RFS2 program
- Manage the production of the RNG, perform all RNG nominating, balancing, storage, delivery, RIN credit generation, RIN credit marketing and monetization
- Manage all federal and local reporting and compliance obligations within the same company

ESG is a design-build firm with unique risk management skills that provide our customers more value beyond construction; for our customers, we offer financial guarantees and have the capability to manage HSOW, biosolids and RNG. We deliver resilient construction projects that provide our customers with certainty around their financial returns.

## **Swimming Pools and Recreational Facilities**

ESG has done many projects designing ways to improve pool heating, address evaporation, and save money on chemicals used. We also have experience with ice rinks. With both pools and ice rinks, we have experience in upgrading the mechanical infrastructure (i.e., pumps, valve, chillers, etc.). As mentioned under the Solar Thermal section, we have also implemented solar heating for pools.

## **Transportation – Fleet Fuel Management, Etc.**

ESG can provide a wide range of vehicle options that can reduce fossil fuel consumption. Electric vehicles (EVs) provide one alternative. We have also worked with customers in converting fleets over to CNG, electric, or other fuel-efficient technologies. ESG has been very successful in landfill and wastewater treatment plant gas (LFG) capture. One use of this gas is as CNG fuel for fleet vehicles. ESG can design, build, and operate a LFG-to-CNG refueling facility for municipal customers.

### **Utility Management**

ESG's energy engineers typically review utility billing and payment as part of the initial audit. They look for possible savings from meter consolidation, rate adjustments and time-of-use (TOU) charges. We can also help facilitate discussions between the customer and the local utilities to ensure maximum benefit from utility rate incentive programs. In terms of bill payment, typically, ESG does not act on behalf of the customer to pay bills.

### **Ventilation Systems & Indoor Air Quality**

ESG has retrofit or installed virtually every ventilation system available. We also implement state-of-the-art indoor air quality technology that has been proven to reduce airborne viruses and provide cleaner, safer air. Our engineers will evaluate what system is the best fit in terms of life cycle costs and ventilation requirements of the Agency's building. These types of improvements have been shown to have a positive impact on learning, working, and living environments.

### **Water-Consuming Systems**

ESG installs water conservation measures ranging from simple fixture and faucet retrofits to rainwater collection systems. We will investigate all usage on-site from sewer credits to irrigation improvements. Within a building or facility, ESG looks at water savings measures like low-flow faucets, waterless urinals, and other water consumption saving devices. Outside of a building, ESG has experience with smart water application technology (SWAT) for irrigation systems. For campus-wide or municipal-wide needs, ESG can help a customer with water meter replacements, consolidation of meters, water sub-metering, design and installation of an automated meter infrastructure (AMI), or an automated meter reading (AMR) system.

## **Summary**

ESG provides a wide range of services and numerous technologies to our Customers and continues to stay on the cutting edge of new and improved ways to conserve energy. We welcome the opportunity to provide energy and technology services to customers.

We have developed a <u>Seven-Phase Approach Methodology</u> to facilitate our services to our potential Customers. This methodology on the following page illustrates some of the services and programs we have provided to other Customers. ESG is ready to offer this approach to Arkansas State Agencies, with revisions along the way to comply with the AEPC program.

## **ESG's Approach to Energy Performance Contracting**

ESG has many tools and processes in place to identify, develop, and implement an Energy Performance Contract Program (EPCP) for the customer. Our "Seven-Phase Approach" clearly identifies the steps, processes, and ESG tools required to ultimately implement a successful project.

These tools that have been developed by ESG have been project and process tested and proven to be extremely reliable and valuable. And, these tools can be customized especially for the customer's needs, project requirements, and required procedures.

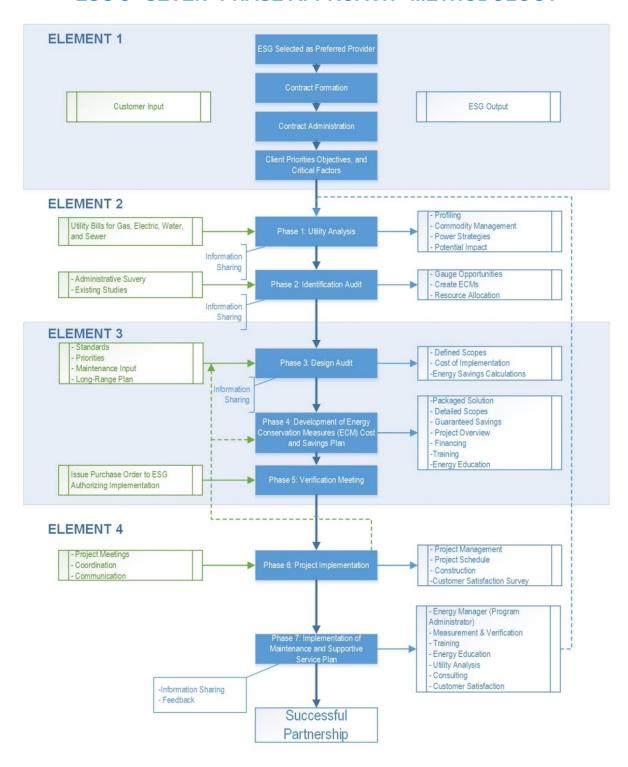
Note the graphic of our "Seven-Phase Approach" methodology on the next page. Below is an explanation of the four elements of our EPCP process:

- Element 1: Contract Award; Contract Formation and Administration; and Customer Priorities, Objectives, and Critical Factors
- Element 2: Data Collection and Information Gathering
- Element 3: Project Development
- Element 4: Implementation and Verification

Note, in the graphic, that throughout each of the seven Phases, an important constant is the communication that must occur between ESG and the customer. In Phases 1 and 2, existing information (bills, present conditions, present issues, etc.) helps us establish the baseline and prepare for audits. In Phases 3 through 5, we need to learn the Facility rules that we must follow and become aware of any future plans. This is also the time for us to share ideas with the customer to ensure we address all facility needs and desires. In Phases 6 and 7, we keep the customer informed of implementation progress and coordinate schedules so that we cause as little disruption as possible to the customer's everyday operation while delivering the project.

ESG is proud of our proven ability to involve the customer throughout this entire process and yet not deter them from their everyday responsibilities. This methodology has been validated as an ESG corporate "Best Practices" process, proven, and time-tested. These four elements of the Performance Contracting process, in conjunction with the ESG "Seven-Phase Approach" methodology, ensure a highly reliable and consistent process that will be the basis for a successful partnership and outstanding achieved results.

## ESG's "SEVEN- PHASE APPROACH" METHODOLOGY



## 8b. Project Development and Implementation

## **Investment Grade Energy Auditing (ASHRAE Level 3 Audit)**

ESG's audit reports are compiled and laid out in a format to conform to local laws or state statues, customer wishes, and a strategy defined by the ESG project team. The layout will be outlined early in the process and communicated to every team member. The report typically includes but is not limited to:

- Facility descriptions and pictures
- System descriptions, counts, and pictures
- Written description of specific issues
- Written description and pictures of [ECM]s
- Written description of the benefits of [ECM]s
- Utility Analysis
- Savings calculations
- Description or data supporting energy calculations
- Description of the M&V plan
- Project pricing
- Any other ancillary data required to support the end goals

## Financing Knowledge: Municipal-tax-exempt Lease Purchase, Bonds, Self-Financed, Other

ESG recognizes that project financing is a critical element of Energy Performance Contracting, and ESG routinely assists customers in securing and arranging financing for individual projects. *Please note that ESG is not a financial advisor*. ESG has financing experts on staff whose primary function is to help customers access the best and most appropriate financing for projects. ESG maintains relationships with various financial institutions to provide the best and most appropriate financing for our customers. Bank of America, Capital One, Huntington, PNC and US Bank are some of the institutions we currently work with to offer specialized tax-exempt financing. ESG also works with various investment banks or "bond houses" in those situations where customers prefer a bond for financing a project. We are familiar with the financing requirements of various states and state legislation, and we can assist customers in sorting our financing options under various circumstances.

### **Identification and Application for Utility Rebates**

ESG is dedicated and has the ability to search, apply for and secure grant/incentive opportunities that may be available for our customers for various ECMs.

### Commissioning of Projects and Retro-commissioning of Existing Buildings

This is one of the cornerstones of our Energy Performance Contracting Program: commissioning and/or recommissioning. ESG ensures proper operation of installed Energy Conservation Measures (ECMs) by following strict commissioning processes to ensure that not only are the ECMs operating correctly but the user knows how to properly operate them. The purpose of commissioning is to test and gain customer acceptance of all building components and systems relating to the project. This includes the administrating and documentation of tasks relative to the certification of a system's conformance to specifications, contracts and performance test requirements.

Using industry commissioning standards as our guideline, our technicians test and adjust all systems to insure they operate at their maximum efficiency. Your maintenance and operations staff is encouraged to participate in the commissioning process. In addition, ESG can assist staff members in creating a comprehensive retrocommissioning/re-commissioning program in order to maintain building performance far into the future.

## Identification of Asbestos and Other Hazardous Materials and Abatement, Recycling or Disposable as Applicable

ESG has experience in dealing with abatement and disposal. We will ensure that properly trained and licensed personnel handle the materials and codes and regulations are followed. ESG follows applicable federal, state, and local laws, rules, and regulations regarding waste disposal and treatment/disposal of any hazardous material that could result from a project under this award.

#### Construction

ESG assembles the best contractor team for the work agreed upon in the contract and our in-house project management team delivers the contract scope with as little disruption to the customer's daily operation as possible.

## **Project Constructability**

By nature, guaranteed energy performance contracts require every ECM to perform in the real-life setting in which it is implemented, not just on paper. As such, every ESG project team member must account for ECM constructability; this requires complete collaboration and communication between our performance engineers and project managers. During the IGA, onsite evaluations are performed by the ESG project management team to review the exact requirements of the work including submittals, site logistics, design requirements, permits required, testing, and safety considerations.

During the project implementation phase, ESG believes quality control starts from the selection of materials and subcontractors. ESG goes through a detailed pre-qualification process with all of our subcontractors prior to a contractual commitment with them. Each contractor is re-evaluated every two years and project performance is evaluated at the end of every project to determine if the subcontractor is qualified to remain as an ESG prequalified vendor. In addition to our rigorous pre-qualification process, on-site evaluations are performed by the project manager through our QA/QC program, which is a two-step process with continual follow up. The first step involves a detailed Pre-Construction Meeting to review with all parties the exact requirements of the work including submittals, site logistics, design requirements, permits required, testing, and safety considerations. The second step takes place shortly after the work has begun. This step includes an initial meeting by the same parties that attended the Pre-Construction Meeting to ensure the work is being installed as planned and in accordance with the contract documents. This meeting discusses procedure compliance, inspection of preliminary work, workmanship, and a safety check. All deviations are documented and addressed immediately. As an ongoing part of ESG's QA/QC program, project managers are required to review and document Quality Control inspections weekly on their Project Manager's weekly report. Deficiencies are written up and sent to the appropriate sub-contractor and tracked until the deficiency is resolved. ESG engineers also do on-site inspections periodically and evaluate quality as well as progress.

ESG views quality control as vital to our future success. We view every project and relationship as a partnership that will last for years to come through the M&V stage and through our strong desire for continued business. We follow every project we complete throughout the guarantee phase. It is in our best interest and the interest of our customers to ensure the highest quality is delivered and that systems installed operate efficiently and as designed for the life of the systems.

## System Design Engineering: Mechanical, Electrical, Etc.

ESG has a team of in-house engineers including capable of designing all potential project systems.

### **Project/Construction Management**

ESG employs an experienced Project Management team that is trained to ensure that your project is installed correctly, on time, and with no unnecessary change orders.

## **Procurement: Bidding, Cost Estimating**

ESG starts by putting contractors through a strict prequalification process and then compares quotes and bids to in-house estimates created from experience and resources such as RS Means to ensure the best product or service for the best price is achieved.

Cost control is at the forefront of most owners' minds. We have all heard the stories of construction projects going well over budget and the frustration that is created with cost overruns. ESG's pledge to our customers in our "No Change Order Contracts" is that ESG will not ask for a change order for the performance of the work as defined in our scope. To clarify, ESG pledges to provide a complete and operational system that meets the design intent and delivers the energy guaranteed agreed upon savings. If the project requires additional scope in order for ESG to meet its guarantee, the owner will not see a change order for this added scope. With that said, the real cost control to the customer is in our detailed work up front in defining our project and laying out detailed scopes of work to our subcontractors. This will assure we are getting the best price, with the best quality, which fits into our defined schedule to end up with the best possible value to our customer. At ESG, our project managers are responsible for all costs and bid evaluations. Project managers work with the engineers to define the scope and make sure we get multiple proposals. Scope clarity ensures the best possible pricing as it is uncertainty and risk that drives contractors pricing upward. ESG will solicit multiple prices in every major category and at a minimum, receive two prices from our qualified vendors. This will ensure the best value proposal to our customer. Upon receipt of subcontractors and vendor quotes, the project manager will conduct a thorough analysis that incorporates price, scope completeness, quality, schedule and our experiences with the contractor or supplier. In addition to our bid evaluation, the project manager will also evaluate owner initiated change orders and make recommendations to owners based on pricing received. The project manager will request detailed estimates and ensure that pricing is fair for the scope requested.

### **8c. Support Services**

## **Measurement and Verification of Savings**

ESG has an in-house Measurement and Verification (M&V) department with the necessary experience, resources, and tools required to evaluate, calculate, and measure energy, water, and Operations and Maintenance savings.

As part of the post-installation support, ESG will conduct regular M&V audits to ensure customers are realizing the financial benefits of the energy upgrades. We follow the International Performance Measurement and Verification Protocol (IPMVP) and customize the tracking to meet the customer's requirements.

We work with our customers during the design phase to secure utility and other government incentives that help lower the overall cost of a project. Many times these M&V reports can be used to satisfy possible utility and government mandated reporting; proving to these entities that the customer is indeed meeting the terms of a particular incentive program.

## **Equipment Warranties**

It is our practice to transfer all manufacturers' warranties to our Customers. Generally, the standard warranties are recommended while in some cases we may recommend extended warranties.

## **Calculation and Reporting of Emissions Reductions**

ESG utilizes software programs for the tracking of energy savings that offer reports listing emission reductions. The ESG marketing department can then convert this information to any form desired.

As part of the post-installation support, ESG will conduct regular M&V audits following the International Performance Measurement & Verification Protocol and customize the tracking to meet the customer's requirements. These M&V reports can be used to satisfy possible utility and government mandated reporting; proving to these entities that the customer is indeed meeting the terms of a particular utility incentive or environmental program.

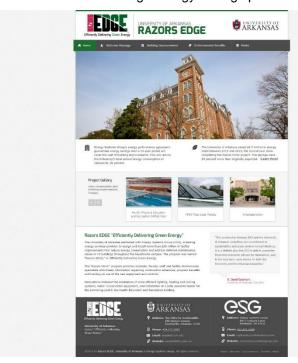
### Marketing and Promotion of a State or Federal EPC Program

Energy Systems Group (ESG) is committed to partnering with Arkansas Energy Office's (AEO) Energy Performance Contracting Program leadership to develop a customized marketing and communications campaign about energy savings performance contract initiatives.

At Energy Systems Group, we partner with each customer to develop a line of marketing and communications collateral to best promote and educate others about the projects we have implemented and the significant benefits achieved by our customers. ESG's marketing and communications services include tradeshows and conferences, seminars, presentations, website development, posters and handouts, and case studies and articles that overview the key sustainability and environmental benefits achieved through energy savings performance

contract initiatives. ESG will also partner with the AEO leadership and media relations team to develop customized press releases, media advisories, and articles in key energy industry publications on both a nationwide and regional basis.

For example, ESG developed the Razors EDGE™ program for the University of Arkansas, whereby a communications program was designed to best align with the University culture and key sustainability initiatives in communicating the accomplishments and benefits of the ESG-University of Arkansas partnership. The 'EDGE' in the program's name is an acronym for 'Efficiently Delivering Green Energy'™.



## Performance Guarantee for Every Year of the Financing Term

If the project does not generate the guaranteed level of savings in any given year, ESG will be responsible for reimbursing the Owner the amount of the shortfall.

### **Insurance per Contract Requirements**

Our extensive experience in Energy Performance Contract work, serving a broad customer base, has provided us with a great deal of experience in addressing and satisfying the insurance requirements of our customers.

## Application for an Energy Star Label Application for LEED Certification

ESG's staff is knowledgeable and can design to meet the requirements, and then assist with the application process. We have many trained and recognized individuals on staff including LEED Accredited Professionals and LEED Green Associates.

Typically during the design phase of a project, ESG's energy engineers work with the customer to determine what incentives and certifications they would qualify for. This could be utility incentives or Federal certifications like LEED or the DOE's Energy Star Program.

This assistance also includes the application process for incentives and certification. Following the project implementation, the engineer continues to assist the customer with the application process. In the event the utility or regulatory agency requires additional information and/or site visit inspection, our engineers are available to assist the customer with those requirements. This helps ensure a faster path to certification and less hassle for the customer.

## **Training of Maintenance Staff and Occupants**

ESG addresses the training needs of our Customers to interact with the technologies and equipment we install, we also educate them on the overall AEPC process and important aspects such as Measurement and Verification.

For every technology that is installed, training is included as part of the project's close-out procedure. This usually involves both review of training and owner's manuals for each technology and hands-on operation of the technology.

For more complicated technology, like Energy Management Systems, formal classroom training may be required. In this case, ESG will assist with the coordination between the customer and the manufacturer's training program.

### **Hazardous Material Handling**

ESG will ensure that properly trained and licensed personnel handle the materials and codes and regulations are followed. ESG follows applicable federal, state, and local laws, rules, and regulations regarding waste disposal and treatment/disposal of any hazardous material that could result from a project under this award.

### **Long-Term Maintenance Services of Energy Systems**

ESG can offer a "Maintenance Plan" and perform Preventative Maintenance and address Deferred Maintenance equal to industry standards with the additional commitment to place "systems" covered by this Plan back into proper operation.

### **Operational Support Services:**

Long-term support, operation, and maintenance of a facility's energy infrastructure are key to realizing long-term benefits of energy retrofits. As demonstrated with a number of installations, ESG Operations Services team maintains many of our customer's operations or augments their own internal staff with our team.

Unique to ESG, as an ESCO, we also have the expertise to operate customer's energy facilities whether it is a central plant, a district cooling plant, or energy center. ESG also has a proven track record with management and operation of landfill gas-to-energy production plants.

When negotiating with our subcontractors; post-installation support of ECMs implemented is required of the subcontractors. Part of the selection criteria is to select vendors who, in addition to having good products, have also demonstrated long-term support of their customers.

## 9. PROJECT HISTORY

In a single table, list ALL public energy efficiency projects developed and implemented by your locally represented firm or its key members within the past five (5) years; indicate whether the project was through your firm or a key member's previous firm. For the Project Timeline entry, include key milestone dates, such as year IGA signed, IGA completed, contract signed and/or construction completed.

ESG is well-versed and experienced in several market sectors including: State Government, K-12 Schools, Local Municipalities, Universities, and Community Colleges. Within each of these market sectors our account teams deploy cutting-edge technologies that reduce energy costs and address the core needs of the customer.

Since 1994, ESG has implemented over 700 energy efficiency and facility infrastructure improvement projects in 39 states and the U. S. Virgin Islands with a total value in excess of \$3 billion for more than 400 customers.

Provided on the following pages is a comprehensive list of all Energy Savings Performance Contract projects that ESG has developed and implemented within the past five years. The projects listed include only projects where work was directly conducted by ESG.

Customer	Market	State	City	Contract Signing Year	Project Total
Iredell-Statesville County Schools NC	K-12 School	NC	Statesville	2021	\$ Redacted
Oak Ridge Tennessee, City of - School District Phase 2a	K-12 School	TN	Oak Ridge	2021	\$ Redacted
Oak Ridge Tennessee, City of - School District Phase 2b	K-12 School	TN	Oak Ridge	2021	\$ Redacted
Pea Ridge School District AR	K-12 School	AR	Pea Ridge	2021	\$ Redacted
Perry Township Schools IN Phase 3	K-12 School	IN	Indianapolis	2021	\$ Redacted
Southampton Union Free School District NY	K-12 School	NY	Long Island	2021	\$ Redacted
Altoona Water Authority PA, Westerly Wastewater Treatment Facility	Local Government - City	PA	Altoona	2020	\$ Redacted
Bristol VA School Board of Education - IAQ Improvements	K-12 School	VA	Bristol	2020	\$ Redacted
Central Islip Union Free School District (CISD)	K-12 School	NY	Central Islip	2020	\$ Redacted
Central Regional School District	K-12 School	NJ	Bayville	2020	\$ Redacted
Clarksville Community School Corporation	K-12 School	IN	Clarksville	2020	\$ Redacted
Eufaula City Schools AL, Board of Education (EBE)	K-12 Schools	AL	Eufaula	2020	\$ Redacted
Eufaula City Schools AL, Board of Education (EBE) Phase 2	K-12 Schools	AL	Eufaula	2020	\$ Redacted
Evansville-Vanderburgh County School Corporation Phase 6	K-12 School	IN	Evansville	2020	\$ Redacted
Florida Union Free School District	K-12 School	NY	Florida	2020	\$ Redacted
Franklin County Fiscal Court	Local Government - County	KY	Frankfort	2020	\$ Redacted
Greater Clark County Schools	K-12 School	IN	Jeffersonville	2020	\$ Redacted
Huber Heights, City of	Local Government - City	OH	Huber Heights	2020	\$ Redacted
Leon County Phase 4	Local Government - County	FL	Tallahassee	2020	Redacted
Marlboro Central School District	K-12 School	NY	Milton	2020	\$ Redacted
Minooka Community High School District # 111 Phase 4	K-12 School	IL	Channahon	2020	\$ Redacted
Minooka Community High School District # 111 Phase 5	K-12 School	IL	Channahon	2020	\$ Redacted
Mokena School District 159	K-12 School	IL	Mokena	2020	\$ Redacted
Oneida, City of	Local Government - City	NY	Oneida	2020	\$ Redacted
PA Dept of Gen Services - SCI Muncy (State Correctional Institution)	State Government	PA	Muncy	2020	\$ Redacted
Paterson Public Schools Phase 2	K-12 School	NJ	Paterson	2020	\$ Redacted
Perry Township Schools Phase 2	K-12 School	IN	Indianapolis	2020	\$ Redacted

Regional School Unit No. 87 (RSU-87)	K-12 School	Maine	Carmel	2020	\$ Redacted
Robertson County Schools (RCS) TN	K-12 School	TN	Springfield	2020	\$ Redacted
Springfield Township	Local Government - City	PA	Springfield	2020	\$ Redacted
Teaneck Public Schools Board of Education	K-12 School	NJ	Teaneck	2020	\$ Redacted
Teaneck Public Schools Board of Education Phase 2	K-12 School	NJ	Teaneck	2020	\$ Redacted
Troy Community Consolidated School District 30-C Phase 2	K-12 School	IL	Plainfield	2020	\$ Redacted
Vilonia Public School District	K-12 School	AR	Vilonia	2020	\$ Redacted
Warren County Fiscal Court Phase 2	Local Government - County	KY	Bowling Green	2020	\$ Redacted
Anderson County Government	Local Government - County	TN	Clinton	2019	\$ Redacted
Aurora, City of	Local Government - City	IN	Aurora	2019	\$ Redacted
Bartholomew Consolidated School Corporation Phase 2	K-12 School	IN	Columbus	2019	\$ Redacted
Earlville Community Unit School District #9	K-12 School	IL	Earlville	2019	\$ Redacted
Evansville-Vanderburgh County Building Authority Phase 5	Local Government - County	IN	Evansville	2019	\$ Redacted
Hanover Fire & Rescue Commision	Local Government - City	PA	Hanover	2019	\$Redacted
Hearne Texas, City of	Local Government - City	TX	Hearne	2019	\$ Redacted
Hempstead Union Free School District	K-12 Schools	NY	Hempstead	2019	\$ Redacted
Kings Park Central School District	K-12 School	NY	Long Island	2019	\$ Redacted
Lower Merion Township	Local Government - City	PA	Ardmore	2019	\$ Redacted
Marlboro School District	K-12 School	NJ	Marlboro	2019	\$ Redacted
Marlboro Township Public Schools, Board of Education	K-12 School	NJ	Marlboro	2019	\$ Redacted
Mendota Township High School District 280, Board of Education	K-12 School	IL	Mendota	2019	\$ Redacted
Minooka Community High School District # 111	K-12 School	IL	Channahon	2019	\$ Redacted
Minooka Community High School District # 111 Phase 2	K-12 School	IL	Channahon	2019	\$ Redacted
Minooka Community High School District # 111 Phase 3	K-12 School	IL	Channahon	2019	\$ Redacted
Morris Hills Regional School District	K-12 School	NJ	Rockaway	2019	\$ Redacted
Perry Township Schools	K-12 School	IN	Indianapolis	2019	\$ Redacted
Pontiac Educational School District 429	K-12 School	IL	Pontiac	2019	\$ Redacted
Tremont CUSD 702	K-12 School	IL	Tremont	2019	\$ Redacted
Troy Community Consolidated School District 30-C	K-12 School	IL	Plainfield	2019	\$ Redacted
Warren County Government	Local Government - County	TN	McMinnville	2019	\$ Redacted
West Milford Township Public Schools	K-12 Schools	NJ	West Milford	2019	\$ Redacted

West Milford Township Public Schools in Passaic County Phase 2	K-12 Schools	NJ	West Milford	2019	\$ Redacted
Woodland CUSD 5	K-12 School	IL	Streator	2019	\$ Redacted
Wyoming County Board of Education Phase 3	K-12 School	WV	Pineville	2019	\$ Redacted
Addison Community Schools	K-12 School	MI	Addison	2018	\$ Redacted
Anderson County Schools Phase 2	K-12 School	TN	Clinton	2018	\$ Redacted
Baltimore DOT Phase 2	Local Government - City	MD	Baltimore	2018	\$ Redacted
Evansville-Vanderburgh County Building Authority Phase 4	Local Government - County	IN	Evansville	2018	\$ Redacted
Freeport Union Free School District	K-12 School	NY	Freeport	2018	\$ Redacted
Fulton County	Local Government - County	OH	Wauseon	2018	\$ Redacted
Harrison County Board of Education Phase 3	K-12 School	WV	Clarksburg	2018	\$ Redacted
Harrison County Board of Education Phase 4	K-12 School	WV	Clarksburg	2018	\$ Redacted
Kentucky State Department of Corrections Phase 2	State Government	KY	Statewide	2018	\$ Redacted
Lawrence County School System	K-12 School	TN	Lawrenceburg	2018	\$ Redacted
Long Branch Public Schools Board of Education	K-12 School	NJ	Long Branch	2018	\$ Redacted
Madison School District	K-12 School	MI	Adrian	2018	\$ Redacted
Manchester Community Schools	K-12 School	MI	Manchester	2018	\$ Redacted
Michigan City Phase 2	Local Government - City	IN	Michigan City	2018	\$ Redacted
Montgomery County Phase 2	Local Government - County	MD	Rockville	2018	\$ Redacted
Montpelier Water Resource Recovery Facility (WRRF)	Local Government - City	VT	Montpelier	2018	\$ Redacted
Morris Hills Regional School District	K-12 School	NJ	Rockaway	2018	\$ Redacted
Mountain View School District (MVSD)	K-12 School	PA	Kingsley	2018	\$ Redacted
Niskayuna WWTP <b>Phase 3</b>	Local Government - City	NY	Niskayuna	2018	\$ Redacted
PA Dept of Conservation & Natural Resources (DCNR) West	State Government	PA	Multiple	2018	\$ Redacted
Paterson Public Schools	K-12 School	NJ	Paterson	2018	\$ Redacted
Sand Creek Community Schools	K-12 School	MI	Sand Creek	2018	\$ Redacted
Warren County Fiscal Court	Local Government - County	KY	Bowling Green	2018	\$ Redacted
Warren County School District	K-12 Schools	TN	McMinnville	2018	\$ Redacted
Warrick County Commissioners	Local Government - County	IN	Boonville	2018	\$ Redacted
Washington Suburban Sanitary Commission (WSSC) Phase IIF	Local Government - County	MD	Potomac	2018	\$ Redacted
Beckley Sanitary Board (BSB)	Local Government - City	WV	Beckley	2017	\$ Redacted
Bloomington, City of <b>Phase 4</b>	Local Government - City	IN	Bloomington	2017	\$ Redacted

Boone County Phase 3	Local Government - County	IN	Lebanon	2017	\$ Redacted
Bradley County Government	Local Government - County	TN	Cleveland	2017	\$ Redacted
Butler Public Schools	K-12 School	NJ	Butler	2017	\$ Redacted
Cleveland City Schools	K-12 School	TN	Cleveland	2017	\$ Redacted
East Gibson School Corporation Phase 1 and 2	K-12 School	IN	Oakland City	2017	\$ Redacted
Evansville-Vanderburgh County School Corporation Phase 4	K-12 School	IN	Evansville	2017	\$ Redacted
Evansville-Vanderburgh County School Corporation Phase 5	K-12 School	IN	Evansville	2017	\$ Redacted
Fort Wayne Community Schools Phase 2	K-12 School	IN	Ft. Wayne	2017	\$ Redacted
Harrison County Board of Education Phase 2	K-12 School	WV	Clarksburg	2017	\$ Redacted
Michigan City	Local Government - City	IN	Michigan City	2017	\$ Redacted
Niskayuna WWTP Phase 2	Local Government - City	NY	Niskayuna	2017	\$ Redacted
Oak Ridge City Schools	Local Government - City	TN	Oak Ridge	2017	\$ Redacted
Oak Ridge, City of	K-12 School	TN	Oak Ridge	2017	\$ Redacted
Oakland Park, City of	Local Government - City	FL	Oakland Park	2017	\$ Redacted
Onsted Community Schools	K-12 School	MI	Onsted	2017	\$ Redacted
Paterson Public Schools	K-12 School	NJ	Paterson	2017	\$ Redacted
Putnam County Board of Education	K-12 School	WV	Winfield	2017	\$ Redacted
Regional School Unit No. 57 (RSU-57)	K-12 School	Maine	Waterboro	2017	\$ Redacted
Sayville Public Schools	K-12 School	NY	Sayville	2017	\$ Redacted
Thornton, Village of	Local Government - City	IL	Thornton	2017	\$ Redacted
Wayne State University	Higher Ed-State	MI	Detroit	2017	\$ Redacted
Bradley County Schools	K-12 School	TN	Cleveland	2016	\$ Redacted
Charter Steel	Industrial	OH	Cuyahoga	2016	\$ Redacted
Community Consolidated School District No. 168, Sauk Village	K-12 School	IL	Sauk Village	2016	\$ Redacted
Community Consolidated School District No. 168, Sauk Village Phase 2	K-12 School	IL	Sauk Village	2016	\$ Redacted
Green County Board of Education	K-12 School	KY	Greensburg	2016	\$ Redacted
Johnson City Schools Phase 2	K-12 School	TN	Johnson City	2016	\$ Redacted
Matteson Elementary School District 159 Phase 2	K-12 School	IL	Matteson	2016	\$ Redacted
McCracken County Fiscal Court	Local Government - County	KY	Paducah	2016	\$ Redacted
Middletown New York, City of	Local Government - City	NY	Middletown	2016	\$ Redacted
Milligan College Phase 2	Higher Ed-Private	TN	Milligan	2016	\$ Redacted

Montgomery County	Local Government - County	MD	Rockville	2016	\$ Redacted
Murfreesboro, City of	Local Government - City	TN	Murfreesboro	2016	\$ Redacted
Nicholas County Schools	K-12 School	WV	Summersville	2016	\$ Redacted
Niskayuna WWTP	Local Government - City	NY	Niskayuna	2016	\$ Redacted
Paris Independent Board of Education	K-12 School	KY	Paris	2016	\$ Redacted
Peach County Georgia	Local Government - County	GA	Fort Valley	2016	\$ Redacted
Scope Educational Services	K-12 School	NY	Smithtown	2016	\$ Redacted
Trousdale County Schools Board of Education	K-12 School	TN	Hartsville	2016	\$ Redacted

Provide detailed information for a maximum of three (3) public energy efficiency projects your firm completed or were completed by members of your locally represented firm, which can be used for references. Expand on the information provided in the previous section to give details on individual projects. Include the following information on each project as a minimum (maximum five pages per project reference).

ESG is not limited by the need to provide customers with a specific product line. We bring alternatives to our customers and then jointly decide the best solution that meets their needs. Furthermore, we recognize that project design and development is not a simple linear process. Every project has its unexpected problems. We pride ourselves on our creativity and ability to work through whatever problems may arise.

Provided in Section 9. Project History, was a comprehensive list of all Guaranteed Energy Savings Performance Contract projects that ESG has implemented within the last five years. Provided on the following pages are three detailed "Project History Profile Sheets". The projects we have selected are examples of varying project complexities and demonstrate and document ESG's extensive project experience, customer satisfaction, and our ability to serve the State of Arkansas.

We have provided the information required in the RFQ including: Project identification, type, size, dollar amount, personnel, and performance and Energy Conservation Measures (ECMs) installed; contract funding and terms; energy savings, and contact information for client reference. As our references confirm, ESG routinely meets or exceeds project schedules. We will be happy to provide any additional information that you require upon request.

On the following pages you will find project reference sheets for the three customers listed below.

## **Project References**

- 1. Vilonia School District, Arkansas
- 2. Pea Ridge School District, Arkansas
- 3. City of Murfreesboro, Tennessee

## **Vilonia School District, Arkansas**

The Vilonia School District, located in central Arkansas, serves approximately 3,200 students in pre-kindergarten through 12th grade. The school district has 575,000 square feet of buildings on six campuses. Vilonia competitively selected ESG to design and implement a \$3.2 million project that improved the school district's infrastructure while providing more than \$6.1 million in energy and operational savings. What started out primarily as a project focused on light-emitting diode (LED) lighting improvements to provide energy and cost savings, developed into a more comprehensive project designed to address a wide variety of Vilonia's infrastructure needs. Using the energy savings contracting (ESC) procurement method, the school district was able to implement additional improvements to its facilities including HVAC unit replacements, controls upgrades, water conservation upgrades, and exterior building improvements without having to use capital funds.



Project Identification	Vilonia School District, Arkansas
Project Dates	April 2020 – January 2021
Project Size	575,000 sq. ft. across 6 campuses
Project Dollar Amount	\$3.2 million
Source of Funds	Lease-Purchase Agreement
Contract Terms	Guaranteed Energy Savings Contract with 20-year Term
Project Personnel	Jonelle Booth, John Waddle, David Rehse, Greg Steele, Phil Neff, Angelica Wirtz
Project Schedule	Completed on schedule
List of Improvements	LED improvements in over a dozen facilities, 76 HVAC unit replacements across the district, district-wide controls upgrades, water conservation improvements, building envelope improvements, and new destratification fans with Smart Triac controllers in the district's high-ceiling buildings
Project Performance / Projected Annual Savings	\$241,000
Performance Guarantee	\$6.1 million over the term ESG has not paid funds to meet the guarantee.
Project Status	Completed / M&V Year 1 begun
Comments	"ESG's commitment to excellence was evident at every turn. It is without hesitation that I recommend ESG." – Dr. David Stephens, Superintendent
Contact Information	Dr. David Stephens, Superintendent (retired) Contact Information Redacted - Please contact Jonelle Booth for contact information.

## Pea Ridge School District, Arkansas

Pea Ridge School District (PRSD) is starting construction on \$7.4 million of facility upgrades that will enhance the classroom learning environment at its schools. The District was approved by the Arkansas Division of Public Schools for Partnership Funding totaling \$4.6 million in grants. Utilizing Energy Savings Performance Contracting allows PRSD to pay for today's facility upgrades with tomorrow's energy savings without tapping into its capital budget. This project addresses the District's aging infrastructure challenges while maximizing state grants to avoid increasing the tax burden on the public. The project will reduce the District's energy footprint as well as future maintenance costs, and the guaranteed annual savings it provides means the project and its improvements will be budget-neutral.



Project Identification	Pea Ridge School District, Arkansas
Project Dates	March 2021 – under construction
Project Size	470,000 sq. ft. across 4 campuses
Project Dollar Amount	\$7.4 million
Source of Funds	Grants and Second Lien Bond
Contract Terms	Guaranteed Energy Savings Contract with 20-year Term
Project Personnel	Jonelle Booth, John Waddle, David Rehse, Greg Steele, Phil Neff
Project Schedule	Construction ongoing
List of Improvements	New roof systems at Pea Ridge Junior High and Pea Ridge Intermediate, 44 New HVAC systems with four dedicated outdoor fresh air units at Pea Ridge Junior High, 25 New HVAC systems with three dedicated outdoor fresh air units at Pea Ridge Intermediate, and power factor correction at Pea Ridge Junior High. The following improvements were carried out throughout the District: building automation controls upgrades, internal and external LED lighting upgrades, water conservation improvements, and building envelope improvements.
Project Performance / Projected Annual Savings	\$163,000
Performance Guarantee	\$8.6 million over the term ESG has not paid funds to meet the guarantee.
Project Status	Under construction
Comments	This project will result in a carbon footprint reduction of over 18,851 metric tons of carbon dioxide, which is equivalent to the amount of CO2 released from the consumption of 2.1 million gallons of gasoline or 770,600 propane cylinders.
Contact Information	Keith Martin, Superintendent Contact Information Redacted – Please contact Jonelle Booth for contact information.

## City of Murfreesboro, Tennessee

As the fifth largest city in Tennessee, the City of Murfreesboro was seeking ways to improve and modernize infrastructure.

Murfreesboro's primary goals were to improve livability and workability for community members, standardize building technologies to simplify operations and reduce maintenance costs, and reduce energy waste. Despite having a strategic plan and a list of projects, it was difficult for the city council to prioritize which projects to pursue first. ESG provided the necessary consultative approach to help the City of Murfreesboro develop a plan to prioritize and accomplish actionable projects, successfully moving the city's vision into reality. Teaming with ESG, the City of Murfreesboro was able to build a solid plan that prioritized projects that could be implemented quickly and generate more than \$11 million in energy and operational



savings over the 15-year period. Working as a team, city facility managers, and operators, along with ESG engineers, surveyed buildings and strategized the best approach to meeting the city's goals. Together, they focused on 27 buildings including the St. Clair Senior Center, the City Hall complex, Patterson Community Park Complex, the Fire Administration buildings, and the Sports Complex. By implementing numerous upgrades, such as LED lighting, HVAC system conversions, chiller and boiler replacements, systems controller installations, window replacements, water conservation measures, faucet aerators, and pool enhancements, the city was able to obtain energy savings of nearly 30%. The City of Murfreesboro was also able to upgrade security systems at the senior center and enhance select building interiors. The city's teaming with ESG has been so successful that the city requested a second phase of projects to further enhance and upgrade city infrastructure.

Project Identification	City of Murfreesboro, Tennessee
Project Dates	October 2016 – April 2018
Project Size	27+ city buildings
Project Dollar Amount	\$8.5 million
Source of Funds	Municipal Bonds
Contract Terms	Guaranteed Energy Savings Contract with 15 year Financing
Project Personnel	John Waddle, David Rehse, Rory Seagert, Justin Forand, Brent Robertson
Project Schedule	Completed on schedule
List of Improvements	Complete building renovations, boilers, HVAC replacements, LED lighting, water conservation improvements
Project Performance / Projected Annual Savings	\$452,500
Performance Guarantee	\$9.2 million over the term ESG has not paid funds to meet the guarantee.
Project Status	Completed / M&V Year 3 in process
Comments	"I highly recommend ESG to anyone seeking the assistance of a knowledgeable, dependable firm." - Ron Dennis, Facilities Superintendent
Contact Information	Jim Crumley, Assistant City Manager (retired) Contact Information Redacted - Please contact Jonelle Booth for contact information.

## 11. COST AND PRICING

### 11a. Investment Grade Audit (IGA) Costs

Please describe your company's approach to IGA Pricing.

The IGA is an audit that fulfills the obligations outlined in Exhibit A of the AEO IGA Contract. All ESCOs in the AEPC Program are required to use the AEO-developed IGA costs in their competitive proposals to public entities, and in no case shall the prices in the table be exceeded. The cost for the IGA is based on cost per square foot and is intended to be the market rate for an IGA.

The basic cost per square foot of the IGA to be used for typical buildings:

IGA Pricing per SF	Under 250 k SF	250 – 500 k SF	501 k + SF	

If a specific project includes systems or facilities other than typical buildings (e.g. waste water treatment, baseball fields, pools, street lighting, etc.), the ESCO may provide estimated additional costs in its IGA pricing proposal. The public entity and selected ESCO will negotiate final costs prior to execution of the IGA and Project Proposal contract.

ESG works with a number of government agencies at the state, federal, and local levels and we recognize that it is often a requirement that our processes be adjusted to comply with their programs. We have designed our processes to be easily adjusted for this reason. We pride ourselves in our ability to negotiate and resolve specific issues that are addressed differently in the government agency's contracts and programs and those issued by ESG. We rarely encounter any issues that cannot be resolved through open discussions and reasonable negotiations.

ESG recognizes that the costs of the IGA are determined by AEO based on a prescribed formula that factors square footage of the buildings included in the scope of work. Using the above table, ESG will calculate IGA costs based on the GSF cost/SF.

The GSF audit fee may not be appropriate for all facilities such as water treatment plants, wastewater treatment plants, warehouses, arenas, and others. The final additional costs for performing the IGA on these buildings will be negotiated after ESG has been selected.

### 11b. Fuel Escalation.

Please describe your company's approach to fuel escalation rates.

Fuel escalation rates are determined and mutually agreed upon with the customer and ESG. ESG will coordinate with the local utility responsible for providing fuel to the customer, and in other instances, indices such as the Consumer Pricing Index (CPI) are also used to assign an appropriate escalation rate.

### 11c. Equipment/Labor Cost Competition

Describe your company's process to solicit bids on equipment/labor or to ensure price/cost competition and the best value for the public entity.

As a rule, ESG prefers to utilize local subcontractors selected using a competitive process. Whenever possible, our competitive selection process utilizes several steps as indicated on the following page:

- 1. We attempt to take into account the preferences of our customers.
- 2. We utilize multiple sources such as the Women Owned Business directories, Small Disabled Veteran Owned Business directors, and the State/Local Minority Business Directories to select small disadvantaged business subcontractors who can support our projects while meeting the quality standards we insist and depend on.
- 3. ESG pre-qualifies all identified prospective subcontractors before any opportunities to bid are provided. ESG requires prospective subcontractors to provide the information requirements from AIA Form A305 – "Contractors Qualification Statement", proof of insurance that meet or exceed ESG and the Government's requirements, the Contractor's IRS W-9 form (Request for Taxpayer Identification Number and Certification), and the following information / documents:
  - Current Contractors License(s) copy(s)
  - Dun & Bradstreet #
  - Financial Statement (preferably audited-latest)
  - Certificate of Insurance (naming ESG as additional insured)
  - Workers Compensation EMR (Interstate)
  - Bonding Capability Letter from subcontractor's agent
  - ESG Non-Disclosure Agreement
  - Safety Information Current EMR (Experience Modification Rate), Current year OSHA 300, Current Year RIP (Total Recordable Incident Rate), a copy of the Contractor's Safety Program and the answer to the question "Has OSHA ever cited your company? If yes, please explain in writing."
- 4. As a part of the initial audit efforts, ESG solicits statements of qualification and sample set pricing from prospective lighting and water contractors through an RFQ approach. ESG evaluates these vendors based on past performance, safety record, cost and pricing methodology, pricing from a sample set of buildings within the scope of a project, references, bonding ability, financial stability, and compliance with ESG master subcontractor agreement documents including insurance requirements. The best value contractor is selected and works with ESG to develop the complete project scope, savings and pricing. The final pricing is evaluated against the RFQ pricing strategies submitted by the best value subcontractor in the RFQ process, our past experience database and/or other industry sources to ensure price reasonableness and that they price the project in line with what was proposed in their RFQ response.
- 5. For more complex ECM's (HVAC, Controls, etc.), a different approach is typically followed:
  - a. Controls to ensure consistency and sustainability, ESG would work with the preferred controls vendor (JCI, Automated Logic, Honeywell, etc.) for the installation to develop scope and pricing. ESG develops an independent estimate in advance of receiving the Controls Vendor's quote to ensure cost reasonableness.
  - b. Metering depending on ownership of the existing Utility system, all Utility meters shall be provided by the local serving Utility as part of the provision of service and associated tariff with additional requirements provided to meet new Federal Government metering requirements. If the system is owned by the Government, a specification will be developed by ESG to meet contract requirements and a solicitation will be developed and submitted to all prequalified vendors for this

type of service. In advance of receiving subcontractor quotes, ESG develops an independent estimate to ensure cost reasonableness.

- c. Transformer & Motor Replacements A set of specifications / summary scope statements and list of motors & transformers to be replaced will be developed and submitted to pre-qualified prospective subcontractors for quotes. An independent estimate is developed by ESG in advance of the receipt of the vendor quotes to ensure cost reasonableness.
- d. For other ECMs (Mechanical / HVAC; Motors; Building Envelope & Other External Building Retrofits such as Window Replacements & Insulation, Cool Roofs, Natural Daylighting, Solar / PV etc.) – A preliminary design / scope and cost estimate will be developed by ESG. The preliminary designs / scopes will then be submitted to pre-qualified subcontractors through a request for proposals.

For the above items, the best value subcontractors are selected and all scopes are finalized during the detailed audit and proposal phases with continued evaluation and determination by ESG of cost reasonableness of any changes to competitively proposed scopes.

- 6. ESG does not unilaterally believe in accepting the lowest bid for any subcontracted work. We expect and seek out the "Best Value" bids for selection of subcontractors for our client's projects. Therefore, ESG utilizes a similar process as the Government in their Best Value Solicitations whereby the following steps are followed:
  - Components of the requested offer are identified and weighted as a part of the solicitation development.
  - A subcontractor selection group is identified from project cognizant personnel (typically the assigned Project Manager, a Project Development Engineer, and the Primary Project Developer) for review and rating / scoring of the subcontractor quotes.
  - The Best Value bidder is chosen from a pre-qualified list of subcontractors based on the review and scoring by this group.

#### 11d. Open Book Pricing

Open book pricing is full disclosure by the contractor to the public entity and AEO of all costs and markups for materials, labor, and services received during the project development, implementation, construction, and performance period phases. Open book pricing requires that all costs, including itemized costs of subcontractors and vendors, are fully disclosed if requested by the public entity at any time during a project, not just at the closing of the project. Describe your company's approach to open book pricing and its method for maintaining cost accounting records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records.

ESG will comply with the AEO's open book pricing policy. All costs for materials, labor, and services received during the subcontractor solicitations, equipment bids, project development, implementation, and performance period phases will be available to the public entity and the AEO for review. Costs will be evaluated through price analysis to compare costs with reasonable criteria such as established catalog and market prices or historical prices to ensure ESG's prices are reasonable and acceptable and that overhead and profit are being properly applied.

## 11e. Project Cost and Pricing Elements

Once the public entity has selected a project scope, estimated project costs and open-book pricing elements will be negotiated and become part of the final EPC proposal and contract. The pricing table format to be used is provided as the AEPC Cost & Pricing Tool.

ESG acknowledges each project and customer is unique and that transparency in the procurement process is important to all parties. We are licensed in many other states that use some version of the table provided as the AEPC Cost & Pricing Tool and are comfortable with the process.

For the purposes of the IGA contract, an ESCO may provide estimated cost percentage ranges for each of the elements. Once the IGA is completed and final scope is developed, the ESCO will provide true costs and for which each category must fall within the proposed percentage range. ESCOs agree to use the cost and pricing values when developing a final IGA and EPC Project Proposal.

ESG's project costing process differs from project to project as each one may endure different challenges. ESG has a successful history with government agencies across all spectrums including: higher education, K-12 schools, municipalities, counties, states, and federal government. In these projects ESG applied market acceptable mark-ups. We are traditionally at or below these market acceptable rates and believe we should continue to adhere to transparency requirements that taxpayers demand.

## 12. APPENDIX

- AEPC Response for Qualifications (RFQ)
- EO-98-04 Governor's Executive Order Disclosure Receipt
- Arkansas Contractors License
- University of Arkansas Razors Edge Website Sample
- Certificate of Insurance
- Equal Opportunity Employment (EEO) Policy
- ESG Financials 2018, 2017, and 2016 REDACTED
- Liberty Mutual Insurance Company Letter of Bondability
- NAESCO Certification
- Investment Grade Audit Sample REDACTED

## Standing Request for Qualifications for the Arkansas Energy Performance Contracting Program





Department of Energy and Environment
Arkansas Department of Environmental Quality – Arkansas Energy Office
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317
501-682-0744
www.adeq.state.ar.us/energy

## TABLE OF CONTENTS

PART 1: REQUEST FOR QUALIFICATIONS	1
1. OVERVIEW AND BACKGROUND	1
2. SCOPE OF WORK AND RESPONSIBILITIES	1
3. USE OF ESCO STATEMENT OF QUALIFICATIONS (SOQ)	1
4. PROPOSAL SUBMITTAL AND SELECTION PROCESS	2
4A. SUBMITTAL SCHEDULE	2
4B. DELIVERY OF RESPONSE	2
4C. COMMUNICATIONS REGARDING THIS RFQ	2
4D. SUBMITTAL FORMAT	2
4E. PROPRIETARY INFORMATION	3
4F. SELECTION PROCESS	3
4G. PERFORMANCE REVIEW	4
5. MINIMUM QUALIFICATIONS	4
6. ADDITIONAL POLICIES	5
PART 2: REQUIRED FORMAT FOR ESCO STATEMENT OF QUALIFICATIONS	8
1. EXECUTIVE SUMMARY	8
2. COMPANY OVERVIEW	8
2A. HISTORY AND FOCUS OF COMPANY	8
2B. INDUSTRY ACCREDITATIONS AND MEMBERSHIPS	8
3. MANAGEMENT AND STAFFING	8
3A. PROJECT MANAGEMENT AND STAFFING	8
3B. ARKANSAS STATE CONSTRUCTION REQUIREMENTS	9
4. COMPANY FINANCIAL STATUS	9
4A. FINANCIAL SOUNDNESS AND PROFITABILITY	9
4B. BONDING	9
5. MARKETING APPROACH	9
6. REPORTING APPROACH	9
7. TECHNICAL APPROACH	10
7A. INVESTMENT GRADE AUDIT	10
7B. STANDARDS OF COMFORT AND CONSTRUCTION SPECIFICATIONS	10
7c. Baseline Calculation Methodology	10
7D. ADJUSTMENTS TO BASELINE	10
8. COMPANY SCOPE OF SERVICES	10
8A. ENERGY SYSTEMS IN BUILDINGS:	10
8B. PROJECT DEVELOPMENT AND IMPLEMENTATION:	11
8C. SUPPORT SERVICES:	11
9. PROJECT HISTORY	11
10. PROJECT REFERENCES	11
11. COST AND PRICING	12
11a. Investment Grade Audit (IGA) Costs	12

11B. FUEL ESCALATION.	13
11C. EQUIPMENT/LABOR COST COMPETITION	13
11D. OPEN BOOK PRICING	13
11E. PROJECT COST AND PRICING ELEMENTS	13

#### Part 1: Request for Qualifications

### • Overview and Background

The Arkansas Department of Environmental Quality – Arkansas Energy Office (AEO) seeks proposals from Energy Service Companies (ESCOs) interested in becoming 'Qualified Providers' in the Arkansas Energy Performance Contracting (AEPC) Program. In this role, firms will provide services to Arkansas State Agencies ('Agencies') under the authority granted to AEO by the amended Guaranteed Energy Cost Savings Act, A.C.A. § 19-11-1201. Municipalities and counties are also allowed to participate in the AEPC Program under the Local Government Energy Efficiency Project Bond Act, A.C.A. § 14-164-801. Additionally, the potential exists for the list to be used by municipal and/or other public entities.

Small, medium and large firms are encouraged to submit proposals for consideration. The purposes of this selection process are as follows:

- 1. To maintain a list of qualified and active energy performance contractors state-wide, as a means to implement comprehensive energy efficiency, water, renewable energy and capital improvement projects in existing buildings that would otherwise be cost-prohibitive.
- 2. To provide public entities the opportunity to procure services of qualified firms in a timely and cost-effective way.
- 3. To ensure minimum qualifications of ESCOs to implement successful EPC projects.
- 4. To ensure fair and reasonable pricing for EPC services.
- 5. To offer all qualified firms the opportunity of equal access to EPC project opportunities in Arkansas.

### • Scope of Work and Responsibilities

The scope of work and responsibilities for Qualified Providers of the AEPC Program are outlined in the AEPC Program Manual, available online at www.adeq.state.ar.us/energy. By submitting a Statement of Qualifications in response to this RFQ, ESCOs agree that, if selected, they will comply with the AEPC Program Rules, Policies and Procedures as outlined in the AEPC Program Manual. While it is not envisioned that changes will occur on regular basis or diverge dramatically from the current version, the program rules and manual may be subject to change. Any changes will be provided to qualified providers certified by the AEPC Program.

#### • Use of ESCO Statement of Qualifications (SOQ)

This RFQ outlines the required format for an applicant's Statement of Qualifications (SOQ). The AEO will post the SOQs of the Pre-Qualified ESCOs to www.adeq.state.ar.us/energy and will be made available to public entities by other

means, if necessary. ESCOs are responsible for updating SOQs with the AEO promptly, to reflect key personnel or company changes.

#### Proposal Submittal and Selection Process

#### 1. Submittal Schedule

This RFQ is issued on a standing basis, meaning that AEO will accept submissions at any time. Please allow twenty (20) business days for AEO staff and consultants to evaluate applications and recommend firms for pre-qualified status in the AEPC Program.

### 2. Delivery of Response

Deliver proposals via mail to:

ATTN: Chet Howland

ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY – ARKANSAS

**ENERGY OFFICE** 

5301 Northshore Drive

North Little Rock, Arkansas 72118-5317

## 3. Communications Regarding This RFQ

The issuing office is the sole point of contact in the State for the selection process. Questions regarding this solicitation should be made to:

Chet Howland howland@adeq.state.ar.us

#### 4. Submittal Format

Prepare a Statement of Qualifications (SOQ) following the Required Format for ESCO Statement of Qualifications, found in Part 2 of this document. Responses should be page numbered. Additionally, state each number and question prior to your response.

Each submittal must include paper and electronic items as follows on or before the due date:

- a) One (1) signed original response;
- b) One (1) replicable electronic copy preferably in Word or PDF format, on CD or flash drive of the signed RFQ response (in word or PDF format) on CD or flash drive.

Failure to submit the required number of copies with the bid may be cause for rejection. If the State requests additional copies of the bid, they **must** be delivered within twenty-four (24) hours of request.

Each submission must include:

- a) ESCO Statement of Qualifications (formatted per Part 2 of this document)
- b) Firm's Annual Financial Report Summary
- c) Sample Investment Grade Audit Report

### 5. Proprietary Information

Proprietary information submitted in response to this RFQ will be processed in accordance with applicable State of Arkansas procurement procedures. Proposals and documents pertaining to the RFQ become the property of the State and shall be open to public inspection subsequent to proposal opening.

It is the responsibility of the Vendor to identify all proprietary information. The vendor should submit one complete copy of the response from which any proprietary information has been removed, i.e., a redacted copy.

The redacted copy should reflect the same pagination as the original, show the empty space from which information was redacted, and should be submitted on a CD or flash drive. Except for the redacted information, the redacted copy must be identical to the original hard copy. The vendor is responsible for ensuring the redacted copy on CD/flash drive is protected against restoration of redacted data. The redacted copy will be open to public inspection under the Freedom of Information Act (FOIA) without further notice to the vendor. If a redacted copy is not included, the entire proposal will be open to public inspection with the exception of financial data (other than pricing). If the State of Arkansas deems redacted information to be subject to the FOIA, the vendor will be contacted prior to releasing the information.

#### 6. Selection Process

AEO staff and AEPC program consultants will review and score proposals. AEO may schedule oral interviews by phone with one or more responding firms to gain clarification as needed. ESCOs that are selected for pre-qualification shall be notified by in writing from AEO.

Any company designated as a pre-qualified ESCO for the AEPC Program may remain on the Pre-qualified ESCO list for a period of up to five years. The ESCO must engage in a good faith effort to promote the AEPC Program and shall adhere to the rules and procedures outlined in the AEPC Program Manual.

Public entities beginning an AEPC project will select from the Pre-Qualified ESCO list, using a secondary Request for Proposals process. The secondary selection process proceeds as follows:

a) The public entity signs a non-binding Memorandum of Understanding with AEO and defines the initial scope of the project.

- b) AEO and public entity will collaborate on a Request for Proposals detailing the proposed AEPC project and selection criteria. Once complete, the public entity will issue the Request for Proposals and AEO will deliver notice electronically to qualified providers via the designated contacts currently listed on AEO Website. It is the responsibility of qualified providers to maintain current contacts. Once announced, qualified providers will have at least ten (10) business days to respond to a Request for Proposals with sealed responses.
- c) The public entity will then evaluate qualified provider's sealed responses. AEO will provide technical assistance during the evaluation, but will not assist in the evaluation or selection. The public entity will either make a selection at this time or choose to interview certain qualified providers for further evaluation.
- d) If a participating public entity opts to interview qualified providers, AEO will coordinate selection interviews at a time of mutual convenience for all parties. AEO will attend all selection interviews conducted through the AEPC Program, but again will have no role in the public entity's selection and/or scoring of qualified providers for a project opportunity.
  - i. Interviews will be no less than one (1) hour per short-listed qualified provider, though the public entity may extend this time if they so choose.
  - ii. Public entities participating in the AEPC selection process shall have forty-five (45) business days to select a qualified provider and begin negotiating an AEPC IGA contract.

#### 7. Performance Review

AEO will monitor and review ESCO performance for compliance with the expectations, policies and procedures outlined in the AEPC Program Manual on an on-going basis. ESCOs failing to comply with AEO expectations and guidelines are subject to termination from the program. AEO will engage all pre-qualified providers determined to be in noncompliance with program expectations, policies, and procedures to explore corrective actions before terminating program eligibility. Any ESCOs meeting AEO expectations and guidelines are eligible to retain pre-qualified status on an annual basis.

#### Minimum Qualifications

To be considered as a pre-qualified ESCO for the AEPC Program, a company must demonstrate in the proposal that it can competently provide the services required of ESCOs as outlined in the AEPC Program Manual.

The firm must also demonstrate that it meets the following qualifications, as specified in the Guaranteed Energy Cost Savings Act, A.C.A. § 19-11-1201:

"Qualified provider" means a person or business, including all subcontractors and employees of that person or business and third-party financing companies, that:

(A) Is properly licensed in the State of Arkansas;

- (B) Has been reviewed and certified by the Arkansas Energy Office as a qualified provider under this subchapter;
- (C) Is experienced in the design, implementation, measurement, verification, and installation of energy cost savings measures;
- (D) Has at least five (5) years of experience in the analysis, design, implementation, installation, measurement, and verification of energy efficiency and facility improvements;
- (E) Has the ability to arrange or provide the necessary financing to support a guaranteed energy cost savings contract; and
- (F) Has the ability to perform under a contract that requires the person or business to guarantee the work performed by one (1) or more subcontractors;

#### MINORITY BUSINESS POLICY:

Minority participation is encouraged in this and in all other procurements by state agencies. Minority is defined by Arkansas Code Annotated § 15-4-303 as a lawful permanent resident of this state who is: African American, Hispanic American, American Indian, Asian American, Pacific Islander American or a Service Disabled Veteran as designated by the United States Department of Veterans Affairs. The Arkansas Department of Environmental Quality conducts a certification process for minority business. Bidders unable to include minority-owned business as subcontractors "may explain the circumstances preventing minority inclusion".

Check minority type:		
	_ Hispanic American ican Service Disabl	_Asian American
Arkansas Minority Ce	ertification Number	

#### **EQUAL EMPLOYMENT OPPORTUNITY POLICY:**

In compliance with Arkansas Code Annotated § 19-11-104, AEO is required to have a copy of the vendor's Equal Opportunity Policy prior to issuing a contract award. EO Policies may be submitted in electronic format to the following email address: <a href="mailto:eeopolicy.osp@dfa.arkansas.gov">eeopolicy.osp@dfa.arkansas.gov</a>, or as a hard copy accompanying the solicitation response. The Office of State Procurement will maintain a file of all vendor EO policies submitted in response to solicitations issued by this office. The submission is a one- time requirement, but vendors are responsible for providing updates or changes to their respective policies, and for supplying EO policies upon request to other state agencies that must also comply with this statute. Vendors that do not have an established EO policy will not be prohibited from receiving a contract award, but are required to submit a written statement to that effect.

#### **EMPLOYMENT OF ILLEGAL IMMIGRANTS:**

Pursuant to, Arkansas Code Annotated § 19-11-105, all bidders must certify prior to award of the contract that they do not employ or contract with any illegal immigrants in their contracts with the State. Bidders shall certify online at: https://www.ark.org/dfa/immigrant/index.php/user/login

#### **EO-98-04 GOVERNOR'S EXECUTIVE ORDER:**

Bidders should complete the Disclosure Forms issued with this RFQ. You can find this form at: https://www.ark.org/dfa/dfa disclosure contract/index.php

#### RECORD RETENTION

The vendor shall be required to maintain all pertinent financial and accounting records and evidence pertaining to the contract in accordance with generally accepted principles of

accounting and specified by the laws of the State of Arkansas. Access will be granted upon request to State or Federal Government entities or any of their duly authorized representatives.

Financial and accounting records shall be made available, upon request, to the State of Arkansas' designee(s) at any time during the contract period and any extension thereof, and for five (5) years from expiration date and final payment on the contract or extension thereof.

#### RESERVATION

This RFQ does not commit the State Procurement Official to award a contract(s), to pay costs incurred in the preparation of a proposal in response to this request, or to procure or contract for commodities or services.

#### PUBLICITY

News release(s) by a vendor(s) pertaining to this RFQ or any portion of the project shall not be made without prior written approval of the State Procurement Official. Failure to comply with this requirement is deemed to be a valid reason for disqualification of the vendor(s) proposal. The State Procurement Official will not initiate any publicity relating to this procurement action before the contract award is complete.

#### **NEGOTIATIONS**

As provided in this request for proposal and under regulations, discussions may be conducted with responsible vendor(s) who submit proposals determined to be reasonably susceptible of being selected for award for the purpose of obtaining clarification of proposal response and negotiation for best and final offers.

#### **CANCELLATION**

In the event the State no longer needs the service or commodity specified in the proposal or proposal response due to program changes, changes in laws, rules, or regulations, relocation of offices, or lack of appropriated funding, the State may cancel the agreement by giving the contractor written notice of such cancellation 30 days prior to the date of cancellation.

#### Part 2: Required Format for ESCO Statement of Qualifications

Use this format to develop your firm's Statement of Qualifications (SOQ), in response to this RFQ. For applicants selected to become Pre-Qualified ESCOs, these SOQs will be made available publicly and may be used by public entities to help select ESCOs to interview. **IMPORTANT:** Re-state the number and question prior to your response.

#### 1. Executive Summary

Submit an Executive Summary providing a brief overview of your company's proposal to be accepted as a pre-qualified ESCO in the AEPC Program:

- 1. Summarize your firm's commitment to comply with the policies, procedures and rules as outlined in the AEPC Program Rules Manual. (If changes are made to the manual, AEO will articulate those changes to all pre-qualified providers and require a receipt that they have been received.)
- 2. Summarize how your firm meets the minimum qualifications, stated in Part 1, Section 5
- 3. Summarize how your firm's expertise and approach will enhance the effectiveness and reputation of the AEPC Program.
- 4. State your permission for AEO to share your SOQ publicly (online, electronically, print) and acknowledge that your SOQ may be used by public entities to help select which ESCOs to interview for EPC projects.

#### 2. Company Overview

2a. History and Focus of Company

Describe the history and focus of the company, including:

- a) Structure and evolution of the firm;
- b) Number of years in energy-efficiency related business; and
- c) Number of public energy-efficiency projects completed by your firm or key members of your firm over the past five years: number under \$1 million in project cost; number over \$1 million in project cost.

#### 2b. Industry Accreditations and Memberships

Provide information on any accreditations and/or memberships in any industry organizations (e.g. Arkansas Advanced Energy Association (AAEA), Energy Services Coalition (ESC), National Association of Energy Service Companies (NAESCO)).

#### 3. Management and Staffing

3a. Project Management and Staffing

- a) Organizational Structure. Show a typical/generic organization chart for implementing and managing a project.
- b) Project Responsibility. In a single table, list your personnel pool of individuals who will potentially be assigned responsibility for each task and phase of a project under the AEPC Program. Also include any added expertise and capability of staff available through other branch offices, subcontracts, etc., that can provide back-up strengths to your firm. Include the office location for each individual, branch office or subcontractor.

c) Approach to Subcontracting. Describe the types of services (both professional and construction services) that your company offers in-house and the services typically offered through subcontractors.

#### 3b. Arkansas State Construction Requirements

Describe your firm's approach to complying with the Arkansas State licensing and labor requirements.

#### 4. Company Financial Status

- 4a. Financial Soundness and Profitability
  - a) Financial soundness. Provide a description of the financial soundness and expected stability of the company.
  - b) Profitability. Provide a description of the company's profitability with supporting documentation covering the past three calendar years.
  - c) Financial report. Attach a financial report summary as an appendix, showing the company's most recent 12-month audited financials including, at a minimum: Balance Sheet, Income Statement, Statement of Cash Flow, and Statement of Financial Conditions. Include the name, address, and telephone number of the preparer.

#### 4b. Bonding

Include responses to the following:

- d) Current bonding rating (maximum project size firm can bond)
- e) Current bonding capacity
- f) Amount or percentage of bonding capacity currently obligated
- g) Current bonding rate
- h) Confirmation that the company is bondable for 100% of a payment bond on a project
- i) Confirmation that the company is bondable for 100% of a performance bond on a project
- j) Letter from a licensed surety as evidence of ability to bond for payment and performance

#### 5. Marketing Approach

Briefly describe your firm's proposed approach to promoting and marketing the AEPC Program both in concert with AEO and in your individual marketing efforts for EPC.

#### 6. Reporting Approach

Describe your firm's approach to providing signed copies of contracts and measurement and verification reports to AEO in a timely manner. In addition, describe how you will meet the requirements for providing project performance metrics, described in detail in the Program Manual.

#### 7. Technical Approach

#### 7a. Investment Grade Audit

Provide a description of the process your company uses to develop a typical audit in the types of facilities that will participate in the AEPC Program. Note any changes that will be made to comply with requirements of the AEPC Program. Provide a recent sample investment grade audit as an electronic attachment. The audit should be representative of a recent energy efficiency project in a government facility. Provide verification that the sample audit was conducted by the members of the company's team who will be participating in the AEPC Program.

#### 7b. Standards of Comfort and Construction Specifications

Provide a brief description of the standards of comfort the company generally uses for light levels, space temperatures, ventilation rates, etc. in the facilities intended for the AEPC Program and any flexibility for specific needs of the public entity.

#### 7c. Baseline Calculation Methodology

Provide a brief description of the methodology normally used by the company to compute the baseline of energy and water use for a facility. Include a discussion of how the public entity is engaged for development of an agreement on the baseline.

#### 7d. Adjustments to Baseline

Provide a brief discussion of typical factors that can impact the calculated baseline and the company's general approach to adjusting the calculated baseline if one or more of these factors are present. Include how the public entity is involved for agreement on any adjustments.

#### 8. Company Scope of Services

Provide a brief description that highlights your firm's capabilities to provide services for the following items. Include as many as possible to validate firm's capabilities.

#### 8a. Energy Systems in Buildings:

- Central plants
- Control and building automation systems
- Daylighting
- Distributed generation
- Fuel switching
- Heating systems
- Indoor air quality
- Kitchens
- Laboratories
- Laundry
- Lighting systems (indoor and outdoor)
- Renewables (geothermal solar-electric/thermal, wind, biomass)
- Swimming pools and recreational facilities
- Transportation (fleet fuel management, etc.)

- Utility management
- Ventilation systems
- Water-consuming systems

#### 8b. Project Development and Implementation:

- Investment Grade Energy Auditing (ASHRAE Level 3 audit)
- Financing Knowledge: Municipal-tax-exempt lease purchase, Bonds, Self-Financed, other
- Identification of and application for utility rebates
- Commissioning of projects and retro-commissioning of existing buildings
- Identification of asbestos and other hazardous materials and abatement, recycling or disposal, as applicable
- Construction
- Project Constructability
- System design engineering (mechanical, electrical, etc.)
- Project/construction management
- Procurement, Bidding, Cost estimating

#### 8c. Support Services:

- a) Measurement and verification of savings
- b) Equipment warranties
- c) Calculation and reporting of emissions reductions
- d) Marketing and promotion of a State or Federal EPC Program
- e) Performance guarantee for every year of the financing term
- f) Insurance per contract requirements
- g) Application for an Energy Star Label Application for LEED certification
- h) Training of maintenance staff and occupants
- i) Hazardous material handling
- i) Long-term maintenance services of energy systems

#### 9. Project History

In a single table, list ALL public energy efficiency projects developed and implemented by your locally represented firm or its key members within the past five (5) years; Indicate whether project was through your firm or a key member's previous firm. For the Project Timeline entry, include key milestone dates, such as year IGA signed, IGA completed, contract signed and/or construction completed.

Owner	Facility	Your	City &	Project	Total	Total	Project	Assigned
/ Project	Туре	Company	State	Size (Dollars)	Energy Savings	Energy Savings	Timeline	Staff
Name		Previous Firm		(Bonaro)	(Dollars)			

#### 10. Project References

Provide detailed information for a maximum of three (3) public energy efficiency projects your firm completed or were completed by members of your locally represented firm, which can be used for references. Expand on the information provided in the previous section to give details on individual projects. Include the following information on each project as a minimum (maximum five pages per project reference)

- 1. Project Identification: Owner name, city/state, and facility type (hospital, school, college, city, county, etc.)
- 2. Contact Information: Names and contact information of owner(s) representatives who can serve as references
- 3. Project Size: Number of buildings and total project square footage
- 4. Project Dollar Amount: Total contract amount and the total project capital expenditure amount
- 5. Source of Funding: A description of the source of funding used for the project and the company's role (if any) in securing that funding
- 6. Project Dates: Actual dates of audit start and acceptance; actual construction starting and ending dates
- 7. Contract Terms: A description of the type of contract, financing arrangement, and contract term
- 8. Project Personnel: A list of the name(s) of individuals involved in the project, their role(s) and if these personnel will be assigned to Arkansas projects. (Attach their resumes in the Project Management and Staffing section)
- 9. Project Schedule: Indicate if project was completed on schedule and, if not, please explain.
- 10. List of Improvements: The types of retrofits and operational improvements implemented related to energy, water and other cost savings
- 11. Project Performance: The amounts of projected annual savings, guaranteed annual savings, and actual annual savings for each project in a table.
- 12. Measurement and Verification (M&V): A brief description of the M&V approach for each project including which savings were stipulated, if any
- 13. Performance Guarantee: A description of the savings guarantee for each project and, if the guaranteed savings were not achieved (explain if so), how the company compensated the public entity for any annual shortfall (e.g. paid funds to meet the guarantee, etc.)
- 14. Project Status: Post M&V, Closed M&V term completed), Additional EPC Phase in Progress (audit or construction), Non-EPC work in progress, other (explain).
- 15. Additional Comments: Comments on any special features, services, conditions, creative approaches, special needs of customer, etc. that may be relevant to the AEPC Program and clientele.

#### 11. Cost and Pricing

11a. Investment Grade Audit (IGA) Costs Please describe your company's approach to IGA Pricing.

The IGA is an audit that fulfills the obligations outlined in Exhibit A of the AEO IGA Contract. All ESCOs in the AEPC Program are required to use the AEO-developed IGA costs in their competitive proposals to public entities, and in no case shall the prices in the

table be exceeded. The cost for the IGA is based on cost per square foot and is intended to be the market rate for an IGA.

The basic cost per square foot of the IGA to be used for typical buildings:

<b>IGA Pricing per SF</b>	Under 250 k SF	250 - 500 k SF	501 k + SF
	\$0.20	\$0.18	\$0.15

If a specific project includes systems or facilities other than typical buildings (e.g. waste water treatment, baseball fields, pools, street lighting, etc.), the ESCO may provide estimated additional costs in its IGA pricing proposal. The public entity and selected ESCO will negotiate final costs prior to execution of the IGA and Project Proposal contract.

#### 11b. Fuel Escalation.

Please describe your company's approach to fuel escalation rates.

#### 11c. Equipment/Labor Cost Competition

Describe your company's process to solicit bids on equipment/labor or to ensure price/cost competition and the best value for the public entity.

#### 11d. Open Book Pricing

Open book pricing is full disclosure by the contractor to the public entity and AEO of all costs and markups for materials, labor, and services received during the project development, implementation, construction, and performance period phases. Open book pricing requires that all costs, including itemized costs of subcontractors and vendors, are fully disclosed if requested by the public entity at any time during a project, not just at the closing of the project. Describe your company's approach to open book pricing and its method for maintaining cost accounting records on authorized work performed under actual costs for labor and material, or other basis requiring accounting records.

#### 11e. Project Cost and Pricing Elements

Once the public entity has selected a project scope, estimated project costs and open-book pricing elements will be negotiated and become part of the final EPC proposal and contract. The pricing table format to be used is provided as the AEPC Cost & Pricing Tool.

For the purposes of the IGA contract, an ESCO may provide estimated cost percentage ranges for each of the elements. Once the IGA is completed and final scope is developed, the ESCO will provide true costs and for which each category must fall within the proposed percentage range. ESCOs agree to use the cost and pricing values when developing a final IGA and EPC Project Proposal.

May 10, 2019 - dsa

## License No. <u>0163410420</u>

# State of Arkansas Commercial Contractors Licensing Board

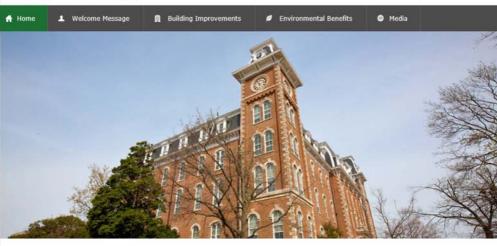
ENERGY SYSTEMS GROUP, LLC 9877 EASTGATE COURT NEWBURGH, IN 47630

NEWBURGH, IN 47630	
This is to Certify That	ENERGY SYSTEMS GROUP, LLC
is duly licensed under the provisamended and is entitled to praction the following classifications/spec	ions of Ark. Code Ann. § 17-25-101 et. seq. as ce Contracting in the State of Arkansas within cialties:
BUILDING - (COMMERCIAL & RESIDENTIAL)	
This contractor has an unlimited sug	ggested bid limit.
fromMay 10, 2019until	April 30, 2020 when this Certificate expires.  Witness our hands of the Board, dated at North Little Rock, Arkansas:
OF THE STATE	Witness our names of the Board, dated at North Little Rock, Arkansus.
ARI	Malk-Colon
	SECRETARY



#### UNIVERSITY OF ARKANSAS RAZORS EDGE







Energy Systems Group's energy performance agreement guarantees energy savings over a 13-year period will cover the cost of building improvements. ESG will reduce the University's total annual energy consumption on campus by 30 percent.



The University of Arkansas saved \$3.7 million in energy costs between 2012 and 2013, the second year since completing the Razors EDGE project. The savings were 24 percent more than originally expected. (Learn More)

#### Project Gallery

View construction and building improvement images.





Health, Physical Education and Recreation (HPER) Pool.



HPER Pool Solar Panels



Arkansas Union

#### Razors EDGE "Efficiently Delivering Green Energy"

The University of Arkansas partnered with Energy Systems Group (ESG), a leading energy services provider, to design and install more than \$30 million of facility improvements that reduce energy consumption and address deferred maintenance issues in 73 buildings throughout the Fayetteville campus. The program was named "Razors EDGE," or Efficiently Delivering Green Energy.

The "Razors EDGE" program provides students, faculty, staff and facility maintenance specialists with timely information regarding construction schedules, program benefits and training on use of the new equipment and controls.

Renovations included the installation of more efficient lighting, heating and cooling systems, water conservation equipment, and installation of a solar powered heater for the swimming pool in the Health Education and Recreation building.

"This partnership between ESG and the University of Arkansas underlines our commitment to sustainability and green environmental initiatives. It is a definite plus that ESG is able to guarantee these improvements will pay for themselves, and, in the long term, save money for both the University and the Arkansas taxpayers."

> G. David Gearhart, Arkansas Chancellor



University of Arkansas Razors "Efficiently Delivering Green Energy"

Phone: 479.575.2405

Email: sustain@uark.edu



Phone: 812.471.5000

M Email: esg@energysystemsgroup.com



#### CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY) 06/26/2019

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in liqu of such endorsement(s).

tŀ	nis certificate does not confer rights t	o the	cert				).			
	DUCER			l N	CONTAC	СТ				
Willis Towers Watson Midwest, Inc. fka Willis of Minnesota, Inc. c/o 26 Century Blvd					PHONE (A/C, No, Ext): 1-877-945-7378 FAX (A/C, No): 1-888-467-2378					
	. Box 305191					SS: certific	cates@willi			
Nas	hville, TN 372305191 USA							RDING COVERAGE		NAIC#
				II.	NSURF			Insurance Company		16535
INSU	IRED							nce Company		26387
	rgy Systems Group, LLC				NSURE					
	7 Eastgate Court burgh, IN 47630				NSURE					
	Dalgii, III 17000									
					NSURE					
	VERAGES CER	TIEI	^ A TE	E NUMBER: W11770047	NSURE	RF:		REVISION NUMBER:		
	HIS IS TO CERTIFY THAT THE POLICIES				BEE	N ISSUED TO			HE POI	ICV PERIOD
IN C	IDICATED. NOTWITHSTANDING ANY RE ERTIFICATE MAY BE ISSUED OR MAY XCLUSIONS AND CONDITIONS OF SUCH	QUIF PERT	AIN,	ENT, TERM OR CONDITION OF THE INSURANCE AFFORDED	F ANY	CONTRACT	OR OTHER I S DESCRIBEI	DOCUMENT WITH RESPE	CT TO	WHICH THIS
INSR LTR	TYPE OF INSURANCE	ADDL	SUBR	POLICY NUMBER		POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMI	TS	
	X COMMERCIAL GENERAL LIABILITY					,, ,		EACH OCCURRENCE	\$	2,000,000
	CLAIMS-MADE X OCCUR							DAMAGE TO RENTED PREMISES (Ea occurrence)	\$	1,000,000
A	X Contractual Liab							MED EXP (Any one person)	\$	10,000
	X xcu			GLO 9243952-06		10/01/2018	10/01/2019	PERSONAL & ADV INJURY	\$	2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:							GENERAL AGGREGATE	\$	4,000,000
	POLICY X PRO- LOC							PRODUCTS - COMP/OP AGG	\$	4,000,000
								PRODUCTS - CONIPIOP AGG	\$	
	OTHER: AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT	\$	1,000,000
	× ANY AUTO							(Ea accident) BODILY INJURY (Per person)	\$	
A	OWNED SCHEDULED			BAP 9243954-06	10/01/2018	10/01/2019	BODILY INJURY (Per accident)	-		
	AUTOS ONLY AUTOS NON-OWNED			211 3213331 00		10, 01, 2010	10/01/2013	PROPERTY DAMAGE	\$	
	AUTOS ONLY AUTOS ONLY							(Per accident)	<u> </u>	1 000
	×							Comp \$100/Col1	\$	1,000
	UMBRELLA LIAB OCCUR							EACH OCCURRENCE	\$	
	EXCESS LIAB CLAIMS-MADE							AGGREGATE	\$	
	DED RETENTION\$							✓ PER OTH-	\$	
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N							X PER OTH-		
A	ANYPROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED?	N/A		WC 9243955-08		10/01/2018	10/01/2019	E.L. EACH ACCIDENT	\$	1,000,000
	(Mandatory in NH)  If yes, describe under							E.L. DISEASE - EA EMPLOYEE	\$	1,000,000
	DESCRIPTION OF OPERATIONS below							E.L. DISEASE - POLICY LIMIT	\$	1,000,000
В	COMBINED PROFESSIONAL/POLLUTION			EOC107126901		10/01/2018	10/01/2019	Each Claim	\$5,00	0,000
	CLAIMS MADE COVERAGE							Aggregate	\$5,00	0,000
	CRIPTION OF OPERATIONS/LOCATIONS/VEHICI S Voids and Replaces Previous									
CE	RTIFICATE HOLDER			(	CANC	ELLATION				
					THE	EXPIRATION	N DATE TH	ESCRIBED POLICIES BE C EREOF, NOTICE WILL EY PROVISIONS.		
				A	AUTHO	RIZED REPRESE				
						Set A	Her			

© 1988-2016 ACORD CORPORATION. All rights reserved.



# **Blanket Notification to Others of Cancellation** or Non-Renewal

Policy No. Eff	ff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
BAP 9243954-10/0 06	01/2018	10/01/2019		34937000		

#### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

#### **Commercial Automobile Coverage Part**

- **A.** If we cancel or non-renew this Coverage Part by written notice to the first Named Insured, we will mail or deliver notification that such Coverage Part has been cancelled or non-renewed to each person or organization shown in a list provided to us by the first Named Insured if you are required by written contract or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to the first Named Insured. Such list:
  - 1. Must be provided to us prior to cancellation or non-renewal;
  - 2. Must contain the names and addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled or non-renewed; and
  - 3. Must be in an electronic format that is acceptable to us.
- **B.** Our notification as described in Paragraph **A.** of this endorsement will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to the first Named Insured. We will mail or deliver such notification to each person or organization shown in the list:
  - 1. Within seven days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or
  - 2. At least 30 days prior to the effective date of:
    - a. Cancellation, if cancelled for any reason other than nonpayment of premium; or
    - **b.** Non-renewal, but not including conditional notice of renewal.
- **C.** Our mailing or delivery of notification described in Paragraphs **A.** and **B.** of this endorsement is intended as a courtesy only. Our failure to provide such mailing or delivery will not:
  - 1. Extend the Coverage Part cancellation or non-renewal date;
  - 2. Negate the cancellation or non-renewal; or
  - 3. Provide any additional insurance that would not have been provided in the absence of this endorsement.
- **D.** We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs **A.** and **B.** of this endorsement.

All other terms and conditions of this policy remain unchanged.



# **Blanket Notification to Others of Cancellation** or Non-Renewal

Policy No.	Eff. Date of Pol.	Exp. Date of Pol.	Eff. Date of End.	Producer No.	Add'l. Prem	Return Prem.
GLO 9243952- 06	10/01/2018	10/01/2019		34937000		

#### THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

This endorsement modifies insurance provided under the:

#### **Commercial General Liability Coverage Part**

- **A.** If we cancel or non-renew this Coverage Part by written notice to the first Named Insured, we will mail or deliver notification that such Coverage Part has been cancelled or non-renewed to each person or organization shown in a list provided to us by the first Named Insured if you are required by written contact or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to the first Named Insured. Such list:
  - 1. Must be provided to us prior to cancellation or non-renewal;
  - 2. Must contain the names and addresses of only the persons or organizations requiring notification that such Coverage Part has been cancelled or non-renewed; and
  - 3. Must be in an electronic format that is acceptable to us.
- **B.** Our notification as described in Paragraph **A.** of this endorsement will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to the first Named Insured. We will mail or deliver such notification to each person or organization shown in the list:
  - 1. Within seven days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or
  - 2. At least 30 days prior to the effective date of:
    - a. Cancellation, if cancelled for any reason other than nonpayment of premium; or
    - **b.** Non-renewal, but not including conditional notice of renewal.
- **C.** Our mailing or delivery of notification described in Paragraphs **A.** and **B.** of this endorsement is intended as a courtesy only. Our failure to provide such mailing or delivery will not:
  - 1. Extend the Coverage Part cancellation or non-renewal date;
  - 2. Negate the cancellation or non-renewal; or
  - 3. Provide any additional insurance that would not have been provided in the absence of this endorsement.
- **D.** We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs **A.** and **B.** of this endorsement.

All other terms and conditions of this policy remain unchanged.

#### BLANKET NOTIFICATION TO OTHERS OF CANCELLATION OR NONRENEWAL ENDORSEMENT

This endorsement adds the following to Part Six of the policy.

## PART SIX CONDITIONS

#### **Blanket Notification to Others of Cancellation or Nonrenewal**

- 1. If we cancel or non-renew this policy by written notice to you, we will mail or deliver notification that such policy has been cancelled or non-renewed to each person or organization shown in a list provided to us by you if you are required by written contract or written agreement to provide such notification. However, such notification will not be mailed or delivered if a conditional notice of renewal has been sent to you. Such list:
  - a. Must be provided to us prior to cancellation or non-renewal;
  - b. Must contain the names and addresses of only the persons or organizations requiring notification that such policy has been cancelled or non-renewed; and
  - c. Must be in an electronic format that is acceptable to us.
- 2. Our notification as described in Paragraph 1. above will be based on the most recent list in our records as of the date the notice of cancellation or non-renewal is mailed or delivered to you. We will mail or deliver such notification to each person or organization shown in the list:
  - a. Within seven days of the effective date of the notice of cancellation, if we cancel for non-payment of premium; or
  - b. At least 30 days prior to the effective date of:
    - (1) Cancellation, if cancelled for any reason other than nonpayment of premium; or
    - (2) Non-renewal, but not including conditional notice of renewal.
- 3. Our mailing or delivery of notification described in Paragraphs 1. and 2. above is intended as a courtesy only. Our failure to provide such mailing or delivery will not:
  - a. Extend the policy cancellation or non-renewal date;
  - b. Negate the cancellation or non-renewal; or
  - c. Provide any additional insurance that would not have been provided in the absence of this endorsement.
- 4. We are not responsible for the accuracy, integrity, timeliness and validity of information contained in the list provided to us as described in Paragraphs 1. and 2. above.

All other terms and conditions of this policy remain unchanged.

This endorsement changes the policy to which it is attached and is effective on the date issued unless otherwise stated. (The information below is required only when this endorsement is issued subsequent to preparation of the policy.)

Endorsement Effective 10/01/2018 Insured Energy System Group, LLC

Policy No. WC 9243955-08

Endorsement No. Premium \$

Insurance Company Zurich American Insurance Company

## **EQUAL EMPLOYMENT OPPORTUNITY (EEO) POLICY**

## **Policy Overview**

The purpose of this policy is to reflect that the Company is an equal opportunity employer and defines how we carry out those responsibilities.

## **Policy Description**

This policy reaffirms the policy and commitment of the Company and its subsidiaries to provide equal employment opportunities for all employees and job applicants. The Company endorses and will follow our EEO Policy in implementing all employment practices, policies and procedures.

The Company will recruit, hire, train and promote persons in all job titles without regard to race, color, religion, national origin, protected veteran status, sex, age, sexual orientation, gender identity, disability status or any other characteristic protected by applicable laws. The Company will make employment decisions so as to further the principle of equal employment opportunity. The Company will ensure that promotion decisions are in accord with the principles of equal employment opportunity by imposing only valid and nondiscriminatory requirements for promotional opportunities. The Company will also ensure that all personnel decisions and actions, including but not limited to compensation, benefits, transfers, promotions, layoffs, returns from layoff, discipline, terminations, Company sponsored training, education, tuition assistance, and social and recreation programs, will be administered without regard to race, color, religion, national origin, protected veteran status, sex, age, sexual orientation, gender identity, disability status or any other characteristic protected by applicable laws.

All employees are expected to comply with our EEO policy. Managers and supervisors who are responsible for meeting business objectives are expected to cooperate fully in meeting equal employment opportunity objectives and their overall performance will be evaluated accordingly.

### **Policy Information**

Policy Owner	Services Management HR Committee; policy changes will be updated and disseminated by Corporate HR
--------------	---

<sup>\*</sup>Responsible for policy updates and communicating revisions to "Business Units Impacted"

<b>Business Units Impacted</b>	Details
VECTREN CORP	All Bargaining and Non Bargaining colleagues
VISCO	All Miller Pipeline and Minnesota Limited colleagues
VESCO	All Energy Systems Group and Mountain Home colleagues
Fuels	Full time regular Fuels colleagues (excludes employees of contract companies)
VUHI	Utility Holding colleagues

# Energy Systems Group **Equal Employment Opportunity (EEO) Policy**

# **Revision Summary**

Date	Summary
6/4/2013	Revised per Services Management HR Committee and to new template/format
12/17/13	Format adjustments
4/1/2014	Revised per Services Management HR Committee and to new template/format
1/27/2015	Revised to comply with the new regulations pertaining to protected veterans and disability status
2/9/2016	Format adjustments
1/4/18	Policy Updated

# ESG Audited Financials REDACTED



Latrecia R. Scott Vice President-Surety

Marsh USA Inc.
One Towne Square
Suite 1100
Southfield, MI 48076
248 945 5352
Latrecia.Scott@marsh.com
www.marsh.com

April 04, 2019

Mr. Joe Vortherms President Energy Systems Group, LLC 9877 Eastgate Court Newburgh, IN 47630

**Subject:** Bonding for Energy Savings Performance Contracting

Construction Performance & Payment Bond for Installation

Dear Mr. Vortherms:

This letter will confirm that Energy Systems Group, LLC is pre-qualified with its surety company, Liberty Mutual Insurance Company (A.M. Best Rated A XV), and regularly obtains suretyship in support of those projects that require bonds.

Should Energy Systems Group, LLC be awarded a final contract with the Obligee and should Performance and Payment Bonds be required, it is the present intention of Liberty Mutual to provide the Performance and/or Payment bonds subject to review and acceptance of contract terms and conditions.

Any arrangements for the bonds, however, is a matter between Energy Systems Group, LLC, and Liberty Mutual Insurance Company, and Liberty Mutual assumes no liability to third parties or to you, if for any reason Liberty Mutual declines to execute said bond or bonds.

Sincerely,

Latrecia R. Scott Attorney-in-Fact

Liberty Mutual Insurance Company

cc: Julie Denman, Marsh USA Inc.

currency

THIS POWER OF ATTORNEY IS NOT VALID UNLESS IT IS PRINTED ON RED BACKGROUND.

This Power of Attorney limits the acts of those named herein, and they have no authority to bind the Company except in the manner and to the extent herein stated.

Certificate No. 8185566

Liberty Mutual Insurance Company The Ohio Casualty Insurance Company

West American Insurance Company

#### **POWER OF ATTORNEY**

KNOWN ALL PERSONS BY THESE PRESENTS: That The Ohio Casualty Insurance Company is a corporation duly organized under the laws of the State of New Hampshire, that Liberty Mutual Insurance Company is a corporation duly organized under the laws of the State of Massachusetts, and West American Insurance Company is a corporation duly organized under the laws of the State of Indiana (herein collectively called the "Companies"), pursuant to and by authority herein set forth, does hereby name, constitute and appoint, Kathy L. DelGreco; Jamie M. Laurencelle; Latrecia R. Scott

\_\_, state of MI each individually if there be more than one named, its true and lawful attorney-in-fact to make, execute, seal, acknowledge all of the city of Southfield and deliver, for and on its behalf as surety and as its act and deed, any and all undertakings, bonds, recognizances and other surety obligations, in pursuance of these presents and shall be as binding upon the Companies as if they have been duly signed by the president and attested by the secretary of the Companies in their own proper persons.

IN WITNESS WHEREOF, this Power of Attorney has been subscribed by an authorized officer or official of the Companies and the corporate seals of the Companies have been affixed day of August 2018



STATE OF PENNSYLVANIA COUNTY OF MONTGOMERY

The Ohio Casualty Insurance Company Liberty Mutual Insurance Company West American Insurance Company

David M. Carey, Assistant Secretary

On this 23rd day of August ., 2018, before me personally appeared David M. Carey, who acknowledged himself to be the Assistant Secretary of Liberty Mutual Insurance Company, The Ohio Casualty Company, and West American Insurance Company, and that he, as such, being authorized so to do, execute the foregoing instrument for the purposes therein contained by signing on behalf of the corporations by himself as a duly authorized officer.

IN WITNESS WHEREOF, I have hereunto subscribed my name and affixed my notarial seal at King of Prussia, Pennsylvania, on the day and year first above written.



COMMONWEALTH OF PENNSYLVANIA

Notarial Seal Teresa Pastella, Notary Public Upper Merion Twp., Montgomery County My Commission Expires March 28, 2021

Member, Pennsylvania Association of Notanes

This Power of Attorney is made and executed pursuant to and by authority of the following By-laws and Authorizations of The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company which resolutions are now in full force and effect reading as follows:

ARTICLE IV - OFFICERS - Section 12. Power of Attorney. Any officer or other official of the Corporation authorized for that purpose in writing by the Chairman or the President, and subject to such limitation as the Chairman or the President may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Corporation to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact, subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Corporation by their signature and execution of any such instruments and to attach thereto the seal of the Corporation. When so executed, such instruments shall be as binding as if signed by the President and attested to by the Secretary. Any power or authority granted to any representative or attorney-in-fact under the provisions of this article may be revoked at any time by the Board, the Chairman, the President or by the officer or officers granting such power or authority

ARTICLE XIII - Execution of Contracts - SECTION 5. Surety Bonds and Undertakings. Any officer of the Company authorized for that purpose in writing by the chairman or the president, and subject to such limitations as the chairman or the president may prescribe, shall appoint such attorneys-in-fact, as may be necessary to act in behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations. Such attorneys-in-fact subject to the limitations set forth in their respective powers of attorney, shall have full power to bind the Company by their signature and execution of any such instruments and to attach thereto the seal of the Company. When so executed such instruments shall be as binding as if signed by the president and attested by the secretary

Certificate of Designation - The President of the Company, acting pursuant to the Bylaws of the Company, authorizes David M. Carey, Assistant Secretary to appoint such attorneys-infact as may be necessary to act on behalf of the Company to make, execute, seal, acknowledge and deliver as surety any and all undertakings, bonds, recognizances and other surety obligations.

Authorization - By unanimous consent of the Company's Board of Directors, the Company consents that facsimile or mechanically reproduced signature of any assistant secretary of the Company, wherever appearing upon a certified copy of any power of attorney issued by the Company in connection with surety bonds, shall be valid and binding upon the Company with the same force and effect as though manually affixed.

I, Renee C. Llewellyn, the undersigned, Assistant Secretary, The Ohio Casualty Insurance Company, Liberty Mutual Insurance Company, and West American Insurance Company do hereby certify that the original power of attorney of which the foregoing is a full, true and correct copy of the Power of Attorney executed by said Companies, is in full force and effect and has not been revoked

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed the seals of said Companies this \_\_\_\_\_\_day of

INSU 1991

109 of 200

To confirm the validity of this Power of Attorney call 1-610-832-8240 between 9:00 am and 4:30 pm EST on any business day.



# Certificate of Accreditation

This is to certify that

# Energy Systems Group (ESG)

has participated in the Accreditation Program and Review and has been recognized by the National Association of Energy Service Companies to be an Accredited Energy Service Provider.

Charles K. McGinnis

Chairman

Timothy D. Unruh Executive Director

June 2020

Certification of Accreditation covers a period of 36 months from date of issuance.

Accredited since 1999.

Sample IGA

REDACTED