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January 4, 2022  
Proposal IVO300.425-010422

City of Mangum, Oklahoma  
Request for Proposal 2021-12-14 Meeting

### **Proposal for New Generation Conceptual Engineering Study**

Dave Andren  
City Manager  
City of Mangum, Oklahoma

**Proposal submitted via e-mail:**  
[citymanager@cityofmangum.net](mailto:citymanager@cityofmangum.net)

Dear Mr. Andren,

Sargent & Lundy (S&L) is pleased to submit this proposal to the City of Mangum, Oklahoma (Mangum or The City) to prepare a new generation conceptual engineering study. Our firm is extremely well-positioned and uniquely qualified to support Mangum for the following high value reasons:

#### **Tremendous Experience in RICE Plant Design**

We have extensive experience with Reciprocating Internal Combustion Engine (RICE) facility design and execution, encompassing most of the major OEMs such as Caterpillar, MAN Diesel, Wärtsilä, and others. This includes in excess of fifty (50) Owner's Engineering assignments, detailed design and execution for nearly a dozen large utility scale plants ranging from 18 MW to 200 MW. We have also performed numerous smaller projects involving these engines for localized power generation, black-start, or emergency backup.

#### **Proven Focus on Cost-Effectiveness**

Our projects typically result in a lower \$/KW than our primary competition because our plant layouts are focused on minimizing commodities and utilizing existing infrastructure, and our sourcing strategy considers only what is best for our clients as opposed to what is best for us. Our success in this area was noted by Wärtsilä and our client (Tucson Electric Power) at a recent Wärtsilä Flexible Power Symposium, where the S&L designed Sundt Generation Station was recognized as having the lowest dollar/kilowatt of any domestic utility-scale RICE plant to date.

S&L has also demonstrated this success on recent Oklahoma projects. The OMPA Charles Lamb Energy Center was recognized in the Oklahoman for cost effectiveness, and we just completed a major capital project for Oklahoma Gas & Electric (OG&E) at Sooner Generating Station to replace their 2x750 T/hr coal conveyors. In this latter case, our proposed change in project sourcing approach, basic conveyor design, and execution strategy resulted in OG&E removing one of our Kansas City based competitors from the project after award and proceeding with S&L. The end result was a net savings

of over \$15MM or nearly a 30% reduction in project cost. This value aligns very closely with what we predicted in our proposal to OG&E leadership. **If there is a low cost way to do something we will find it.**

### **Proven Firm and Staff with Tremendous Credentials**

Our collective team and firm are extremely well versed in performing brownfield projects, such as this opportunity with The City. In fact, **small to medium sized plant upgrade, betterment, and conceptual study work represents over half of our billable** workload in our Energy and Industrial Group (EIG).

### **Commitment to Quality**

Many organizations claim to emphasize quality, but few back up that claim. S&L is **ISO 9001 certified** and audited regularly by a third party to keep our accreditation. Our strong system of project management processes ensures that projects are effectively managed using budget, schedule, quality, and safety metrics and our well-developed technical processes and standards ensure we utilize best practices consistently and clearly define levels of competency to ensure high-quality deliverables for all client work.

On behalf of our organization, thank you for considering our firm for this important opportunity. Please call me with any questions regarding our high-value proposal.

Best regards,



Chuck Beitel  
Senior V.P. & Project Director



## **City of Mangum, Oklahoma**

RFP No. 2021-12-14 Meeting

### **PROPOSAL FOR NEW GENERATION CONCEPTUAL ENGINEERING STUDY**

**Proposal IV0300.425-010422**

January 4, 2022



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[www.sargentlundy.com](http://www.sargentlundy.com)

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## ATTACHMENTS

- A. Experience Summary
- B. Terms and Conditions (Proposed)
- C. Billing Rates for Ongoing Potential T&M Work Following Study Completion



## **1. INTRODUCTION**

Sargent & Lundy (S&L) is pleased to submit this proposal for engineering services to develop technology selection recommendations and high-level cost estimates for up to 9 MW of fast start generation in the City of Mangum, Oklahoma's (Mangum or The City) service area. The scope described in this proposal was prepared in response to our December 14, 2021 meeting via MS Teams and is based on similar evaluations performed for other municipal utilities.

## **2. OWNER'S ENGINEERING SCOPE AND APPROACH**

S&L is one of the most qualified engineers in the industry in the application of reciprocating internal combustion engine (RICE) technology. We are also well versed in working on existing "brownfield" sites given that we lead the gas and coal plant repowering market for domestic A/E firms. While we serve very large utility clients, we also serve numerous municipal clients throughout the U.S. and have for many years. Our active municipal clients include the City of Tallahassee, City of Lakeland, Orlando Utilities, City of Sikeston, MO, Kissimmee Utility Authority (KUA), Oklahoma Municipal Power Authority, South Mississippi Electric Power Association, Lansing Board of Water and Light and dozens of others.

Included are S&L's RICE qualifications to illustrate our capabilities for the type of generation technology that will likely be considered. We intend to assign our most experienced consultants to the tasks of developing the required deliverables to further your plans for possible new generation selection. We are pairing this high-level of talent with cost-effective younger staff to quickly and completely communicate the necessary high-level details of the evaluated technology into a concise summary report. By using a similar previous evaluation completed for another municipal client as a starting point, we are keeping the costs minimal for your benefit.

The planned scope of work includes the following documentation to accompany the summary report:

### **2.1 TECHNOLOGY SCREENING**

Based on the desired 8-12 MW output mentioned in our meeting prior to the holiday, our conceptual design group headed by Ed Giermak will propose several technology options for the City's consideration. We concur that for this size range the focus should be on reciprocating engine technology, and as such will keep this screening to a high level and only include various models of reciprocating engines that are expected to be competitive in this size range. S&L has applied and/or studied much of the available generation equipment and can propose options that are tailored to the load profile.

During this phase of the project, we intend to work collaboratively with the City to screen the various technology configurations down to two shortlisted selections for further. The further study effort will entail the development of high-level concept general arrangement drawings and estimating.

## **2.2 PERFORMANCE ESTIMATING**

For a high-level conceptual study project such as this, we do not envision the need for detailed heat balances on the RICE technology selections. In most cases, we will apply industry-available data regarding generation capability and performance characteristics, as well as information gained from past application of the various technologies to verify the screened options meet the output and load profile requirements stipulated by the City of Mangum. We have been involved in numerous recent evaluations of the latest generation of RICE technology, including from units as small as 4 MW up to very large-frame 20-MW machines, which will benefit this portion of the evaluation.

## **2.3 GENERAL ARRANGEMENT DRAWINGS**

Following a site walk and review of drawings showing existing infrastructure by our project team, we will develop multiple options showing the location of the new power generation equipment relative to existing facilities. Any required demolition will be marked up, and we will strive to utilize available existing infrastructure to the extent that it possesses the required remaining useful life and yield meaningful cost savings. Arrangement related lessons learned from our numerous past reciprocating engine projects will be carried forward into the provided layouts for the screened options in order to yield optimized arrangements. Considerations for tie-ins to the nearby transmission lines will be shown along with construction items such as laydown space, engine staging area, and major utility/drainage system components. Valuable input from the City of Mangum staff will be incorporated into the drawings in order to more fully define the options being considered, as well as to provide input to the capital cost estimates that will be developed in the next phase.

## **2.4 COST ESTIMATING**

Adel Koci will lead the estimating efforts and will apply our extensive library of cost data for technology selections, other major equipment, commodities, and labor to efficiently build up a high-value, low-cost estimate on each of the screened arrangement options. We will also adjust for local items, such as labor productivity, plant arrangement related factors, ambient conditions, as well as any client preferences (e.g., extent of Owner's costs, values for interest during construction) that are made available to our project team during the course of the project. A multiple lump sum basis instead of the more expensive, time consuming EPC approach will be considered, as per our discussions last month. Our very refined approach to estimating using an already available library of solid cost data will yield an AACE Level IV estimate in terms of accuracy (+20%/-15%). The

developed prices will be benchmarked against past and current Midwest and Florida RICE projects for which we are the engineer-of-record.

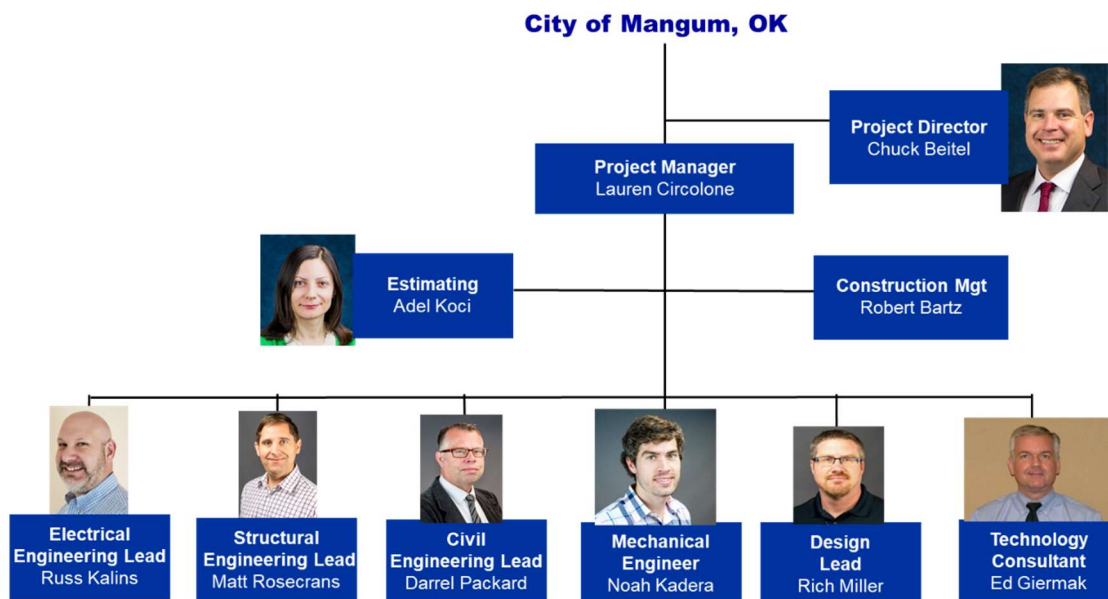
## 2.5 SUMMARY REPORT

The results of the above tasks will be summarized in a conceptual engineering study report, with each of the deliverables noted above included as an attachment. We will also provide a Level 2 schedule showing the overall project durations from notice to proceed through commissioning. We will address comments from the City in a timely manner and issue the report as final for use as a scoping roadmap to facilitate a rapid start to downstream full project authorization activities.

## 3. PROJECT TEAM ORGANIZATION AND QUALIFICATIONS

Each designated team member for the project was specifically chosen based on their proven experience supporting fast-track conceptual engineering study projects such as this, as well as for their experience as engineer-of-record for current and past RICE projects. Additional discipline support from S&L’s full complement of staff resources will be made available to the team, as necessary.

Figure 1. Project Team Organization Chart



## 4. COMPANY EXPERIENCE

S&L is one of the longest-standing and most experienced full-service architect engineering firms in the world. Founded in 1891, the firm is a global leader in power and energy with expertise in grid modernization, renewable energy, energy storage, nuclear power, and fossil-fueled power plants. S&L delivers comprehensive project services — from consulting, planning and design, permitting, and implementation to construction management, commissioning, and operations and maintenance — with an emphasis on quality and safety. The firm serves public- and private-sector clients in power and energy, oil & gas, government, industrial, mining, and other heavy industries.

## 5. PROPOSAL PRICING, COMMERCIAL TERMS, AND CLARIFICATIONS

### 5.1 ESTIMATED PRICING

Our fixed price cost for the conceptual engineering services based on the above described scope is \$27,700. This includes a trip to walkdown the site by our project manager and other lead personnel. We propose the following payment terms:

- 35% upon authorization
- 50% upon completion of the client comment issue of the study report
- 15% following incorporation of the City's comments on our report

The overall project cost for brownfield RICE technology implementation in this size range is \$700/KW to \$1700/KW. We realize this is a broad range, but at this early stage we have to rely on actual past project metrics as a guide. Key inputs to this cost estimate that affect the potential actual costs include but are not limited to:

- Client preferences such as equipment redundancy and misc. enhancements beyond the basic power generation systems
- Contract execution method. Performing a turnkey Engineer-Procure-Construct (EPC) approach is typically 15% more in our experience than a conventional multi-contract approach
- Extent of existing available infrastructure that can be re-used
- Local factors such as extent of regional labor, extent of per diems that must be paid, etc.
- Long term service agreement scope and terms with the selected OEM

Our study estimate that is provided will refine these and numerous other items to yield a well vetted cost estimate. Some potential to provide an extremely “lean” design or consider grey market equipment does exist which may allow for meaningful cost reductions to the stated values.

## **5.2 TIME AND MATERIAL RATES**

This work will be performed by staff in our Energy and Industrial Group (EIG), with some minimal support from our transmission and distribution group. We propose the attached terms and conditions be utilized which are consistent with terms utilized for other recent study project such as this. We have estimated approximately 180 hours plus travel costs as our basis for this scope.

## **Attachment A**

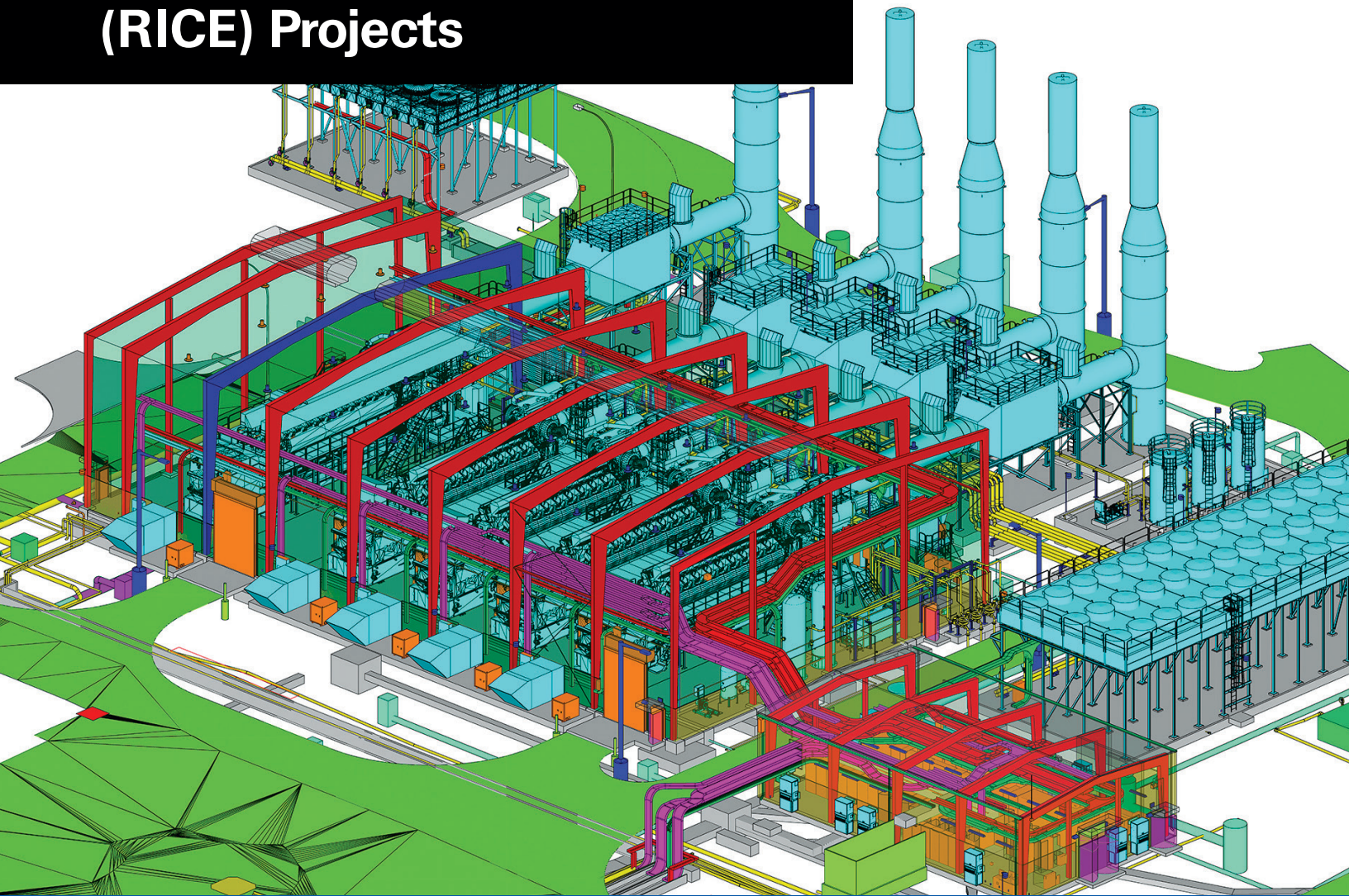
### Experience Summary





ENERGY & INDUSTRIAL SERVICES

# Cost-Effective Reciprocating Internal Combustion Engine (RICE) Projects



*More than 125 years of diverse applications*





RICE plants can meet your generating needs, from quick-start backup, black start, and grid stabilization, for renewable portfolios, to economical peaking and baseload power in dispersed locations. These projects have smaller footprints, but merit specialized attention to achieve optimal results. Equipment choices significantly influence cost and flexibility. We can help you plan and implement the RICE project that will deliver low-cost, reliable generating capacity.



*Westside Energy  
Rochester Public  
Utilities / 5x9 MW*

**We will help you achieve your project objectives for:**  
**Peaking Power Generation • Load Following • Black Start**  
**Grid Stabilization for Renewable Portfolio**  
**Essential Services Power and Emergency Generation**



### Planning and Conceptual Design

*Broad knowledge to assess and identify options for your needs*

- ▶ Conceptual engineering and estimating
- ▶ Fuel supply source, including dual-fuel
- ▶ Feasibility studies, fatal flaw analyses, comparative site evaluations, and interconnect application support
- ▶ Owner's engineering services



### OEM Knowledge

*Vast knowledge of equipment*

- ▶ Proven experience with all major original equipment manufacturers (OEMs)
- ▶ Extensive knowledge of latest generation technology
- ▶ Reputation for making all parties on project successful



### Permitting and Compliance

*In-depth experience to efficiently achieve compliance*

- ▶ Air pollution construction and operating permits
- ▶ Stormwater permits and pollution-prevention plans
- ▶ U.S. Army Corps of Engineers permits





### Engineering and Design

*Proven designs and expertise that get your project up and running quickly*

- ▶ Fully integrated design implementation
- ▶ Engineered building solutions to minimize total installed cost for larger engine halls
- ▶ Pre-engineered building solutions for small and medium engine halls
- ▶ Noise mitigation and safety assessments, including NFPA 37 compliance
- ▶ Several reference designs available



### Equipment Procurement

*Large procurement staff to support any review of equipment*

- ▶ Full-service procurement capabilities
- ▶ Concise technical specifications that yield a streamlined bid process
- ▶ Well-developed procurement plans that maximize value



### Grid Interconnection and Transmission

*In-house capability to provide grid impact studies and design your interconnection in all regions*

- ▶ Substation engineering
- ▶ Grid impact analyses
- ▶ Transmission/distribution engineering

Engineer of Record for **500 MW** of Domestic Utility-Scale RICE Plants

*From planning to plant operation*



Marquette Board of Light and Power  
Marquette Energy Center  
3x18 MW



Owner's  
Engineer for over  
**100**  
**Clients**  
in 15 countries



### Construction Management and Commissioning

*Experienced staff with global know-how to meet your project's needs*

- ▶ Technical and construction specifications
- ▶ Fully integrated construction management, startup, and commissioning
- ▶ Expediting
- ▶ Performance test procedures, witnessing, confirmation of compliance with guarantees



**Tucson Electric Power**  
*Sundt Station*  
10x18 MW

*Phantom Aerial Solutions, Inc.*





## *Our experience and expertise*

Clients rely on our proven experience delivering quality, low-cost, reliable designs and our commitment to meeting tight schedules and budgets.

Our RICE project experience extends from single-engine black start generators to the detailed design of multi-engine plants, including gas-fired, liquid fuel, and dual-fuel installations, across diverse applications and locations.

- ▶ Extensive resume and industry leadership in RICE plant applications
- ▶ Full-service organization with deep talent pool – project implementation teams with immediate access to a wide range of industry-leading specialists
- ▶ Experienced, responsive, and cost-effective staff using advanced design tools to maximize project value
- ▶ Projects encompass conceptual layouts and cost estimates, detailed design, procurement, CM, and commissioning
- ▶ Owner's engineering, due diligence, market studies, and cost benchmarking
- ▶ Application experience with range of fuels and required processing equipment
- ▶ Extensive grid connection portfolio



## Contact Us

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Vice President and Director  
Business Development

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Chicago, IL 60603-5780

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**312-269-6890**



## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services

Sargent & Lundy

Sargent & Lundy has provided engineering, design, and procurement services to support the installation and operation of reciprocating engine generators for all of our new unit designs, including fossil and nuclear power plants. Our global expertise in this area is enhanced by extensive detailed design, owner's engineering, technical advisory (due diligence) consulting, and betterment and modification assignments. These projects encompass a wide range of plant sizes, vintages, technologies, and fuels, and have involved numerous major reciprocating engine original equipment manufacturers (OEMs). These include Caterpillar Inc., Cummins, Cooper Bessemer, Detroit Diesel, Electro-Motive Diesel, Hyundai, Jenbacher, Kohler, Krupp MaK (Cat), MAN, MTU, Onan, Société Alsacienne de Constructions Mécaniques (SACM), Wärtsilä, and Western Diesel Engine. Listed below is a representative sampling of Sargent & Lundy's experience with reciprocating engine generators.



**Marquette Energy Center**  
3x17 MW



**Sundt**  
10x18 MW



**Westside Energy Station**  
5x9 MW

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



Sargent & Lundy

### New Unit Design and Engineering

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Lakeland Electric	McIntosh 3 Site Lakeland, FL	MAN Energy Solutions	18V51/60G 6x20 MW Natural gas	Balance-of-plant (BOP) design, RICE specification and bid evaluations, and engineering, procurement, and construction management (EpCM) services new 120-MW RICE plant on existing site of retired coal unit.	Q2 2023 (COD)
Central Iowa Power Cooperative	Summit Lake Creston, IA	Wärtsilä	18V50SG 3x18 MW Natural gas	Detailed engineering and design, procurement support, and construction management and commissioning support services.	2019-2020
Confidential	Confidential Diesel Cranking Project – 700-MW combined-cycle facility Indiana	Caterpillar	C175 4x3.9 MW Diesel fuel oil	Engineering, procurement, construction, commissioning, testing and startup of diesel/RICE generators and associated equipment required to start, during grid blackout conditions. Scope encompassed one 6.9-kV switchgear lineup; one 2-winding 6.9/0.48-kV transformer; diesel fuel oil unloading system; local PLC with local HMI; connections to DCS; fire protection system; and common building enclosing the new equipment.	2019-2020
Tucson Electric Power	Sundt Generation Modernization Project Tucson, AZ	Wärtsilä	18V50SG 10x18 MW Natural gas	Following successful completion of owner's engineering services in 2017, the TEP Self-Build Project Team composed of TEP, S&L, and The Ashton Company assembled to design, engineer, and construct the project. S&L's overall scope of services encompassed detailed engineering, design, procurement support, and BOP commissioning services.	2017-2020
City of Tallahassee, Florida	Hopkins Tallahassee, FL	Wärtsilä	18V50SG 4x18.8 MW Natural gas	Scope encompassed conceptual design and site layout, technology (OEM) selection, permit support, detailed engineering / design, procurement support, construction management (CM), and startup / commissioning (SU).	2016-2019

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



Sargent & Lundy

### New Unit Design and Engineering

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Confidential	Compressor Station Great Lakes Region (U.S.)	GE Waukesha	12V275GL+ 5 engines (gas compressor drive application) Natural gas	Detailed engineering and CM/SU for compressor facility consisting of 5 new 3750-hp RICE machines driving Neuman & Esser compressors. Facility includes new compressors, auxiliary buildings, and BOP systems to interface with existing incoming and outgoing gas transmission lines. Coordinated engineering / design with RICE OEM for interface with engine oil, air intake, exhaust, air starting system, jacket and auxiliary water systems, and laying out compressor package within compressor building to meet install and maintenance space requirements.	2016-2019/ 2020
City of Tallahassee, Florida	Substation 12 Reliability Project Tallahassee, FL	Wärtsilä	20V34SG 2x9 MW Natural gas	Conceptual design and site layout, technology (OEM) selection, permit support, detailed engineering / design, procurement support, and CM/SU support.	2015-2018
Rochester Public Utilities (RPU), Minnesota	Westside Energy Station Rochester, MN	Wärtsilä	20V34SG 5x9 MW Natural gas	Joint venture EPC partnership. S&L responsible for detailed engineering/design, procurement, and startup/commissioning of BOP systems.	2016-2018
Marquette Board of Light & Power (MBLP), Michigan	Marquette Energy Center Marquette, MI	Wärtsilä	18V50DF 3x18 MW Dual-fuel, natural gas	Engineering study for generation expansion. Permit application support, detailed engineering / design, procurement support, and CM/SU support.	2015-2017
Montana Dakota Utilities (MDU) – Montana	Lewis & Clark 2 Sydney, MT	Wärtsilä	20V34SG 2x9 MW Natural gas	Permit application support, conceptual design and cost estimate development, detailed engineering / design, procurement support, and CM/SU.	2014-2016
KEPCO/KOPEC	Yonggwang 3-6/ Ulchin 3-6 Korea	SACM	7000 kW, oil, intermediate-speed 1500 rpm, nuclear	New unit design and engineering.	2004

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Entergy – Louisiana	New Orleans Power Station New Orleans, LA	Wärtsilä	7x18 MW, natural gas	Owners engineer activities, including EPC proposal review, support for EPC contract negotiations, generation of permit drawings, permitting support, review of EPC drawings / design documents, construction support, and QA/QC support.	2017-2019
I.C. Power / KANAN	Power barge replacement Panama	MAN B&W	7x18-MW HFO reciprocating engines, Siemens generator	Owner's engineering services for power barge replacement and detailed cooling water line interface design.	2017-2018
Commonwealth Utilities Corporation	Power Plant 1 Northern Mariana Islands	MAN	8-MW, fuel oil	Owner's engineering services for technical review of EPC contractor's documents for removal and replacement of one existing RICE unit at an eight-unit facility. Also provided site construction management services.	2017
Araucaria Energy	Lujan, San Pedro, Las Palmas, Matheu Argentina	Wärtsilä	18V50SG (7) and 18v50SG (13), heavy fuel oil	Due diligence to review EPC contract, fuel supply agreement, and power purchase agreement; maintenance services; environmental assessment; project costs; and execution schedule.	2016
Confidential Client	60 MW reciprocating engine plant U.S.	Wärtsilä	9 MW and 18 MW	Feasibility study, including cost and performance estimates for planned thermal power project in western state.	2016
International Finance Corporation / Tobène Power Company (Matelec)	Tobène Extension Senegal	MAN	18V48/60 (1) engine, heavy fuel oil added to existing Tobène plant, 17 MW	Technical advisor to perform review of various agreements, including EPC contract, fuel supply agreement, and power purchase agreement. Also involved in reviewing maintenance services, project costs, and execution schedule for the addition of new engine to existing project. Monitored EPC execution and reviewed performance test requirements.	2016

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



Sargent & Lundy

### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Overseas Private Investment Corporation (OPIC) / International Finance Corporation / ContourGlobal	Cap des Biches Power Plant Extension (note – this is a standalone project adjacent to existing project) Senegal	Wärtsilä	18V46 (2), 33 MW, heavy fuel oil	Technical advisor to review EPC contract, fuel supply agreement, and power purchase agreement; maintenance services; environmental assessment; project costs; and execution schedule. Monitored EPC execution and reviewed performance test requirements.	2016
Overseas Private Investment Corporation (OPIC) / International Finance Corporation / ContourGlobal	Cap des Biches Power Plant Senegal	Wärtsilä	18V46 (3) and steam turbine for combined-cycle operation, 53 MW	Technical advisor to review the EPC contract, fuel supply and agreement, power purchase agreement, maintenance services, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. The brownfield site previously was based on combustion turbine technology, which was left in place and some prior assets were reused.	2014-2016
International Finance Corporation / Tobène Power Company (Matelec)	Tobène Senegal	MAN	18V48/60 (5), heavy fuel oil, with 1 steam turbine for combined-cycle operation, 98 MW	Technical advisor to performing various tasks such as review of EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule. Also involved in monitoring EPC execution, reviewing performance test requirements, and witnessing performance test.	2013-2016
AES/Globelec and International Finance Corporation (and other lenders)	Kribi Expansion Project Cameroon	Wärtsilä	18V50SG (7), 100 MW, heavy fuel oil	Technical advisor to IFC, EIB, and other lenders for the expansion project adjacent to Kribi project. Evaluated EPC contract and approach planned for locating and executing project at existing site.	2015



## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Confidential Client	Confidential: Station A and Station B U.S.	Confidential	Six 9-MW natural-gas-fired reciprocating internal combustion engine generators (RICE)	Owner's engineering services, encompassing design, engineering, procurement, fabrication, assembly, factory testing, packing, shipment, and delivery of four RICE units to be installed at Station A and two of the same size at Station B. Station A is at existing facility and Station B at greenfield site.	2014
Power Generation Company of Trinidad and Tobago Ltd.	Repowering Study Trinidad	Wärtsilä, MAN	18V50SG, 18V50DF, heavy fuel oil  18V51/60G, 18V51/60DF, heavy fuel oil	Evaluated feasibility of repowering existing project site with reciprocating engines.	2014
UTE	Parnaiba III Brazil	Wärtsilä	W20V34SG (1), 9.3 MW, heavy fuel oil	Technical advisor to review EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule.	2014
UTE	Parnaiba IV Brazil	Wärtsilä	18V50SG (3) 56 MW, heavy fuel oil	Technical advisor to review EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule.	2014
ABSA Capital / International Finance Corporation / Thika Power (Matalec)	Thika Kenya	MAN	18V48/60 (5) reciprocating with steam turbine/air-cooled (ACC) condenser for combined-cycle generation, 87 MW; heavy fuel oil	Technical advisor to review EPC contract, fuel supply and power purchase agreements, environmental assessment, project costs, and execution schedule. Also involved in monitoring EPC execution, reviewing performance test requirements, and witnessing performance tests. After commercial operation, monitored and assessed plant O&M.	2012-2013

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Confidential	Suape II Brazil	Wärtsilä	20V46F (17) 22.4 MW, 380 MW total	Asset acquisition review to evaluate installation, performance, fuel supply, offtake/PPA, and O&M.	2012
Confidential	EPASA Brazil	MAN	18V32/40 and 9LV32/40 (40) 10.9 MW and 5.4 MW, total 340 MW in two blocks	Asset acquisition review to evaluate installation, performance, fuel supply, offtake/PPA, and O&M.	2012
Hawaiian Electric Company, Inc.	Kahe Generating Station Oahu, HI	EMD	20-645E4, 102 MW	Owner's engineer services, including developing EPC specification.	2012
Hawaiian Electric Company, Inc.	Schofield Generating Station Oahu, HI	Wärtsilä	20V34DF 51 MW diesel generator, biodiesel	Owner's engineer services, including developing EPC specification.	2012
Maui Electric Company, Ltd.	Waena Generating Station Maui, HI	EMD	20-645E4, 25 MW with option for additional 25 MW	Owner's engineer services, including developing EPC specification.	2012
Overseas Private Investment Corporation (OPIC)/ ContourGlobal Togo	Central Lomé, Brownfield Togo	Wärtsilä	18V50 DF (6), dual-fuel (heavy fuel oil or natural gas from the West African Gas Pipeline)	Review of EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. After commercial operation, monitored and assessed plant O&M. Site also required oil contamination remediation.	2011-2012
BNP Paribas/ ContourGlobal	Energies Antilles / Energies St. Martin Antilles and St. Martin	SEMT Pielstick (MAN)	4x5.12 MW (16.4 MW total), heavy fuel oil Wärtsilä 12V32, 3x4.5 MW (13.5 MW total), heavy fuel oil	Technical advisor to evaluate the asset, performance, and O&M of the two projects. Subsequently performed annual project budget and O&M reviews.	2010-2012

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



Sargent & Lundy

### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Gulf Power Limited/International Finance Corporation	Athi, Kathiani District Kenya	Wärtsilä	20V32 (10), 80 MW, heavy fuel oil, reciprocating	Technical advisor to review EPC contract, fuel supply and power purchase agreements, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. After commercial operation, monitored and assessed plant O&M.	2010-2012
World Bank / International Finance Corporation	West Kingston Power Project, Industrial District of Kingston Jamaica	Wärtsilä	12V46 (6) 11 MW (66 MW total), heavy fuel oil	Review of EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule. Also involved in monitoring EPC execution, reviewing performance test requirements, and witnessing performance test. After commercial operation, monitored and assessed plant O&M. Site also required oil decontamination with containment provisions.	2010-2012
City of Tallahassee, Florida	New Peaker Unit Tallahassee, FL	Various	Various diesel and natural gas-fired RICE	Owner's engineering services to develop conceptual designs, cost estimates, and to evaluate RICE OEMs, equipment size, etc.	2002-2012
AES/Globelec and International Finance Corporation (and other lenders)	Kribi (Africa's largest RICE project) Cameroon	Wärtsilä	18V50DF (13), offshore-supplied natural gas and diesel oil, 213 MW	Technical advisor to IFC, EIB, and other lenders. Project involves 100 km of transmission line executed on EPC basis. The natural gas was from offshore platform, processed on shore, and supplied to plant via a 12-km pipeline. As technical advisor, reviewed EPC contract, fuel supply and power purchase agreements, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. After commercial operation, monitored and assessed plant O&M.	2009-2010

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

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### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Overseas Private Investment Corporation (OPIC) (ContourGlobal Solutions)	8 combined heat and power (CHPs) Various locations, Europe and Nigeria	Jenbacher	Type 6 and Cummins, natural gas and distillate oil	CHPs are associated with industrial facilities and are a mix of cogeneration, trigeneration, and quadgeneration configurations, providing electricity, chilled water, steam/hot water, and CO <sub>2</sub> . Technical advisor to review EPC contracts, fuel supply agreements, energy sales, environmental assessments, project costs, and execution schedules. Monitored EPC execution, and reviewed performance test requirements and performance test results. After commercial operation, monitored and assessed O&M of the CHPs.	2009-2010
Confidential Client	Emergency Power Worldwide Locations	Caterpillar, Cummins, and MTU	Various models	Technical advisory services to an investment fund for review of a company's expertise and of its technology to provide fast-track emergency power generating capacity using reciprocating engines. Emergency power projects consist of an array of small engines with diesel oil fuel. Reviewed business model for the firm and its technology choices. Evaluated and visited select projects to evaluate performance.	2011
Hawaiian Electric Company, Inc.	Campbell Industrial Park Oahu, HI	--	Diesel generator	Develop general arrangement and cost estimate for diesel generator.	2011
PG&E	Humboldt Bay Humboldt County, CA	Wärtsilä	18V50 DF (10), heavy fuel oil	Owner's engineer support for selection of suitable technology. Prepared draft EPC contract scope of work and subsequently provided additional limited Owner's engineer services. Client self-performed engineering reviews.	2011

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Project Developer	Almanakar NEPCO IPP4 Jordan	Wärtsilä	18V50 DF, 200 MW to 250 MW, heavy fuel oil	Prepared EPC technical specification for use by the developer for bidding the EPC scope of work.	2011
International Finance Corporation / Jamaica Energy Partners	Dr. Bird I Jamaica	Wärtsilä	18V46 and 112V46 (8) 74 MW, barge-mounted project, heavy fuel oil	Equipment condition assessment and impact of additional adjacent barge-mounted engine project, O&M assessments and addressing O&M organizational changes, and annual O&M monitoring for performance, management, and budgets.	2005-2010
International Finance Corporation / Jamaica Energy Partners	Dr. Bird II Jamaica	Wärtsilä	18V46 and 18V46 (3) 49 MW, barge-mounted project, heavy fuel oil	Technical advisory reviews of barge-mounted engine project to assess EPC Contractor and interconnection to grid, construction monitoring, operation and maintenance assessments and addressing the O&M organizational changes, and annual O&M monitoring for performance, management, and budgets.	2005-2010
Ameren	Meredosia Meredosia, IL	--	Diesel generator	Emergency diesel generator installation.	2007
Ameren	Edwards Peoria, IL	--	Diesel generator	Emergency diesel generator relay settings.	2005
Hitachi America, Ltd.	Council Bluffs 4 (now Walter Scott Energy Center) Council Bluffs, IA	--	Diesel generator	Diesel generator procurement and emission support.	2004

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

Owner's Engineering and Technical Advisory Services



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### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
CINergy Global Power, IPS, Commonwealth Development Corporation, and Wärtsilä NSD Power Development	Kipevu II Kenya	Wärtsilä	18V32 (7), 74 MW, heavy fuel oil	Technical advisor to review EPC contract, fuel supply and power purchase agreements, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. After commercial operation, monitored and assessed plant O&M.	2000-2002
Dynegy/Midwest Generation	Wood River Alton, IL	--	Diesel generator	Diesel generator replacement.	2001
Cemento de El Salvador, S.A. de C.V. (CESSA)	El Ronco El Salvador	MAN Caterpillar	Phase 1: MAN 3x6 MW, heavy fuel oil Phase 2: Caterpillar 2x6 MW, heavy fuel oil	Owner's engineering and construction monitoring services for installation. Also performed market analysis for potential further expansion of facility. The expansion was performed under Phase 2.	1998-2001 1995-1997
Central Electricity Board	Various facilities Mauritius	Various	Various heavy fuel oil-fired engines, combustion turbines, and hydroelectric facilities	Environmental due diligence review of existing heavy fuel oil-fired engines, combustion turbines, and hydroelectric facilities for compliance with Mauritian and World Bank guidelines.	2000
Inter-American Development Bank, Illinova / Pan Am Thermal Generating	La Chorra Panama	Wärtsilä	18V46 (6), 96 MW, heavy fuel oil	Performance test witnessing and operations monitoring services during the loan period as the lenders' independent engineer.  Independent design, construction, and review of environmental compliance with governmental and World Bank regulations and guidelines for project under construction.	1999-2000 1997
GMR Vasavi Power Corporation Ltd, U.S. utility/developer	Basin Bridge, build, own, operate (BOO) India	Hyundai	2-cycle, low-speed, 200 MW, heavy fuel oil	Technical due diligence study, including status review of permits and agreements, environmental clearance, conditions, compliance; project schedule, and progress.	1999

## Reciprocating Internal Combustion Engine (RICE) Project Experience

New Unit Design and Engineering | Approximately 600 MW of New RICE Capacity

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### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
Scudder Latin America Power Fund	Rockfort Jamaica	--	Oil, 2x27.5 MW	Independent engineer services associated with assessment of the general condition, O&M, and upgrades required.	1999
Vung Tau Energy Company, Ltd., IFC, Wärtsilä NSD Power	Ba Ria Vietnam	Wärtsilä	18V46 (8), 120 MW total, heavy fuel oil	Technical advisor to IFC as lenders' engineer to support financing. Comprehensive review of EPC scope, fuel supply and power purchase agreements, environmental documents, scheduling, and other key project items for financial closure.	1998
Constellation Power	Guatemala, Orimulsion Guatemala	Wärtsilä	Low- and medium-speed, 120 MW, heavy fuel oil	Owner's engineering services for technology evaluation of engines and steam electric power plants. Prepared EPC specification for the steam electric power plant option.	1997-1998
IFC, Gul Ahmed Energy, Tomen Corporation	Gul Ahmed Pakistan	Wärtsilä	18V46 (9), 125 MW, heavy fuel oil	Technical advisor to review the EPC contract, fuel supply and power purchase agreements, maintenance services, environmental assessment, project costs, and execution schedule. Also monitored EPC execution, reviewed performance test requirements, and witnessed performance test. After commercial operation, monitored and assessed the O&M of the plant.	1997
Ogden	Edison Bataan Philippines	Cooper-Bessemer	10x6.7 MW, heavy fuel oil	Independent technical assessment, including engineering and design review, engine refurbishment monitoring, performance testing, O&M, and preparing an independent engineer report.	1997
Tomen Corporation, IFC	Kohinoor Pakistan	Wärtsilä	18V46, 120 MW, heavy fuel oil	Due diligence services, including review of fuel supply and power purchase agreements and performance of technical reviews and construction monitoring.	1997

## Reciprocating Internal Combustion Engine (RICE) Project Experience

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### Owner's Engineering and Technical Advisory Services

Client-Owner	Facility-Location	OEM	Description	Scope of Services	Schedule
GVK Industries (India IPP)	Ratlam, IPP India	Wärtsilä	120 MW, heavy fuel oil	Owner's engineering services for engine selection and O&M plan.	1996
Marathon Power Company, Ltd./ Tripetrol Power S.A.	Santo Domingo de Los Colorados Ecuador	--	16 engines, 230 kV substation, and 230 kV transmission line, 180 MW, heavy fuel oil	Owner's engineering services, including EPC specification, site selection, and identifying design parameters needed for feasibility evaluation of the facility.	1996
Jacksonville Electric Authority, Inc.	Girvin Road Landfill Gas Utilization Generation Facility Jacksonville, FL	--	3.1 MW, heavy fuel oil	Prepared the conceptual design, cost estimate, and EPC proposal for engine-based facility utilizing landfill gas for fuel.	1995
IFC/Tomen Corporation	Northern Mindanao Philippines	Wärtsilä	113 MW, heavy fuel oil	Independent design, construction, and review of environmental compliance with governmental and World Bank regulations and guidelines for a project under construction.	1994



## **Attachment B**

Contractual Terms and Billing Rates (Note that Billing Rates Only Apply for Follow on Work as this Study is Being Quoted as firm price)

## **GENERAL ENGINEERING SERVICES AGREEMENT**

THIS GENERAL ENGINEERING SERVICES AGREEMENT ( "Agreement") for the performance of professional engineering services is executed and made effective as of [REDACTED], 2021 between the City of Mangum, OK RA and SARGENT & LUNDY, L.L.C., an Illinois limited liability company, ("Engineer") which hereinafter may be referred to collectively as "Parties" or individually as "Party".

IN CONSIDERATION of the covenants hereinafter set forth and other valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereto mutually agree as follows:

### **1. SCOPE OF WORK**

#### **1.1. DESCRIPTION OF WORK; REQUESTS FOR SERVICES**

Engineer shall perform professional engineering services ("Services") for compensation in connection with one or more of Owner's facilities ("Facility" or "Facilities") in accordance with a written request for services ("Requests for Services"), each of which describes the scope of Services, schedule and deliverables for the Services, issued by Owner from time to time during the term of this Agreement, similar to that which is set forth in Exhibit A (Request for Services) attached hereto. Such Requests for Services shall make specific reference to this Agreement and shall be subject to Engineer's written acceptance. Engineer shall accept or decline a Request for Services as promptly as practicable under the circumstances. Request for Services shall not amend or add to this Agreement in any respect, except to describe the new scope of Services, the schedule therefor, and the applicable compensation terms. Additional or revised contractual terms or conditions may be added by formal written amendment to this Agreement and not through Requests for Services; any such terms and conditions contained in Requests for Services shall be of no force or effect unless such terms specifically reference and supplement this Agreement.

#### **1.2. ENGINEER'S RESPONSIBILITIES**

Engineer shall, subject to the terms and provisions of this Agreement:

- 1.2.1. Furnish engineers, designers, draftsmen, and other personnel necessary for the Services; and
- 1.2.2. Appoint one or more individuals who shall be authorized to act on behalf of Engineer, with whom Owner may consult at all reasonable times, and whose instructions, requests, and decisions will be binding upon Engineer as to all matters pertaining to this Agreement and the performance of the Parties hereunder.

1.3. OWNER'S RESPONSIBILITIES

Owner shall at such times as may be required for the successful and expeditious completion of the Services:

- 1.3.1. Obtain all permits and licenses required to be taken out in the name of Owner which are necessary for the performance of the Services;
- 1.3.2. Provide Engineer with all known information regarding subsurface conditions at the site of the Facilities, and existing specifications, documents, and drawings regarding aboveground structures and facilities.
- 1.3.3. Appoint an individual who shall be authorized to act on behalf of Owner, with whom Engineer may consult at all reasonable times, and whose instructions, requests, and decisions shall be binding upon Owner as to all matters pertaining to this Agreement and the performance of the Parties hereunder.

1.4. CHANGES

It is the desire of the Parties to keep changes in the scope of Services at a minimum, but the Parties recognize that such changes may become necessary and agree that they shall be handled as follows: Owner may initiate a change by advising Engineer in writing of the change believed to be necessary. Engineer shall then prepare and forward to Owner a cost estimate of the change which shall include the adjustment to the total compensation applicable thereto and any required schedule adjustments. Owner shall advise Engineer in writing of its approval or disapproval of the change. If Owner approves the change, Engineer shall perform the Services as changed. Engineer may initiate changes by advising Owner in writing that in Engineer's opinion a change is necessary. If Owner agrees, it shall advise Engineer and, thereafter, the change shall be handled as if initiated by Owner.

It is understood and agreed that Engineer shall be afforded a change in the compensation, schedule, or other terms of this Agreement for reasons including, but not limited to: change in scope of Services, change in the schedule for the Services, Owner caused delays; changes in applicable law; change in tax requirements; and actions/inactions of parties other than Engineer.

1.5. CONSTRUCTION OBSERVATION

Engineer shall not direct or employ any construction labor and shall not be considered a general contractor, but rather as Owner's representative on site with only the authority to act on Owner's behalf in matters relating to construction management. In no event shall Engineer be responsible for construction means, methods, techniques, sequences, or procedures.

Engineer shall not be responsible for or have control or charge over the acts or omissions of the construction contractor(s) or (except for Engineer's subcontractors) any other person or company at the Facility, nor shall Engineer's presence on site in any way be interpreted as having the authority to provide instruction to the construction contractor(s) or others at the Facility, nor shall it be responsible or have the authority to stop work by the construction contractor(s) or others at the Facility for any reason.

In the event Engineer, or anyone of its affiliates, employees, agents, subcontractors or suppliers, furnishes any advice or assistance which is not required pursuant to this Agreement, other than advice or assistance given concerning matters within the scope of this Agreement, the furnishing of such advice or assistance will not subject Engineer to any liability whether in contract, guarantee, indemnity, warranty, tort, (including negligence), strict liability or otherwise.

Owner shall see that all construction contractors have general liability insurance and name Owner and Engineer as additional insureds on a primary and noncontributory basis. A waiver of subrogation shall also be provided by these construction contractors in favor of Owner and Engineer. To the extent permitted by law, Owner shall cause the construction contractor(s) to indemnify, defend, and hold the Engineer harmless from and against any and all claims, demands, suits, damages, including without limitation consequential damages and damages resulting from injury or property damage, costs, expenses and fees that are asserted against Engineer and that arise or allegedly arise out of or in any way result from the acts or omissions of the construction contractor(s), their employees, agents and representatives in performing work on the project.

## **2. COMPENSATION AND TERMS OF PAYMENT**

Engineer shall provide the Services specified in Exhibit A on a firm, lump-sum, time-and-material, or other basis as described therein. For time-and-material Services, billing rates are attached hereto and incorporated as Exhibit B. If Engineer modifies these billing rates, Engineer will notify Owner in writing. Updated billing rates shall be provided for subsequent calendar years. Included in the billing rates are salary and wage-related expenses such as sick and personal leave; vacation and holiday pay; home office overtime premium; health and retirement benefits; group life and Workers' Compensation Insurance premiums; and federal, state and local payroll taxes imposed on employers such as FICA, excise and unemployment taxes. Not included in the billing rates are state gross receipts, compensating, sale(s), excise, and other similar taxes and any non-U.S. taxes (including withholding requirements), duties, fees, tariffs, etc. which, if applicable, shall be reimbursed by or payable by the Owner. Also included in the rates are general office overhead expenses such as rent, light, stationery and supplies, the salaries and wages of certain personnel while engaged in the internal administration of Engineer, and profit.

Traveling expenses, including transportation, room, board, and other similar expenses will be invoiced at actual cost.

Services of subcontractors and outside consultants will be invoiced at actual cost plus ten percent (10%) for handling.

Costs incurred by Engineer for its use, registration and renewal of various third-party services required by Owner shall be reimbursed in accordance with the billing rates set forth in Exhibit B. Fees paid to such third party service providers shall be reimbursed by Owner at cost.

Invoices will be submitted monthly as the Services progress or in accordance with a mutually agreed payment schedule, as appropriate. Payments shall be due within thirty (30) calendar days of receipt of an invoice. In the event of a dispute regarding any invoice, the undisputed amounts will be paid and Engineer will be notified, in writing, of the amount(s) in dispute and the basis of the dispute within such thirty (30) calendar day period.

Engineer shall have the right, at Engineer's sole option, to suspend or terminate the Services in accordance with Article 7.2 herein, either in whole or in part, in the event that any undisputed amounts are not paid within forty-five (45) calendar days of receipt of an invoice. Further, Owner shall waive any claim against Engineer and agrees to indemnify, defend and hold Engineer harmless from and against any claims arising from such suspension or termination. Additionally, a finance charge shall be assessed on the unpaid balance for each day of a month that any undisputed amount remains unpaid beyond thirty (30) calendar days, using the prime rate for the last day of the prior month as reported in the Wall Street Journal, plus five percent (5%). For example, if the published rate is seven percent (7%), the daily interest rate used for the following month will be  $(7\%+5\%)/360 = 0.0333\%$ .

Payment of invoices shall not be subject to any discounts or set-offs, by common law or otherwise, by Owner, unless agreed to in writing by Engineer. Payment to Engineer for Services rendered and expenses incurred shall be due and payable regardless of any subsequent suspension or termination of this Agreement by either Party.

### **3. STANDARD OF CARE**

Engineer's sole obligation and Owner's exclusive remedy for any failure to perform its Services in accordance with generally accepted engineering practices, whether in tort or in contract, shall be to reperform those non-conforming Services, so long as such failure is reported in writing to Engineer within thirty (30) calendar days following discovery thereof, but in no event later than one (1) year from the date on which such Services were performed. After said one (1) year, Engineer shall have no remaining obligation to reperform any Services or otherwise compensate Owner.

Engineer's review and/or translation and conversion of information and interface prepared by others shall in no way serve to transfer to Engineer responsibility for the correctness and/or accuracy of the work performed by others. Further, Engineer shall have no liability for defects in the Services attributable to Engineer's reliance upon or use of data, design criteria, drawings, specifications or other information furnished by

Owner or third parties retained by, or working with, Owner. Should Engineer observe any errors in such data, design criteria, drawings, specifications or other information, Engineer shall promptly advise Owner.

Engineer shall endeavor to prepare cost estimates, project time schedules, reports, or any other deliverable as accurately as possible based on current information and experience. It is expressly acknowledged that information and data provided by others, which may constitute the basis for these deliverables, has not been independently verified by Engineer. In addition, Owner acknowledges that the cost estimates, project schedules, reports or any other deliverable generated by Engineer are time sensitive and changes in the underlying data, applicable codes, standards, and acceptable engineering practices, as well as the passage of time, may affect the accuracy of the deliverables provided to Owner.

Engineer makes no other warranties or guarantees express or implied. This Article 3 governs, modifies and supersedes any other terms which address warranties or guarantees or the quality of the Services unless such terms specifically reference and supplement this Article.

#### **4. INDEMNIFICATION**

To the extent of Engineer's negligent acts, errors or omissions, Engineer shall indemnify and hold Owner harmless from any and all third-party claims, liabilities, and costs (including reasonable attorney's fees directly related thereto) for (i) bodily injury to or death of any person, or (ii) damage to or destruction of third-party property.

To the extent of Owner's negligent acts, errors or omissions, Owner shall indemnify and hold Engineer harmless from any and all third-party claims, liabilities, and costs (including reasonable attorney's fees directly related thereto) for (i) bodily injury to or death of any person, or (ii) damage to or destruction of property.

Any liability arising out of Engineer's and Owner's joint negligence shall be shared on a pro-rata basis between the Engineer and the Owner.

#### **5. INSURANCE**

5.1. Commencing with the performance of the Services, and continuing until the earlier of acceptance of the Services or termination of this Agreement, Engineer shall maintain the following types of insurance policies:

5.1.1. Workers' Compensation in accordance with applicable statutory requirements endorsed to include Employer's Liability coverage of one hundred thousand dollars (\$100,000) each accident, five hundred thousand dollars (\$500,000) disease policy limit, and one hundred thousand dollars (\$100,000) disease coverage per each employee.

5.1.2. Commercial General Liability, with a limit of one million dollars (\$1,000,000) per occurrence and in the aggregate for bodily injury and

property damage liability. This policy shall (i) be on a claims-made basis, (ii) include Contractual Liability coverage and (iii) name Owner as an additional insured.

5.1.3. Automobile Liability (including owned, non-owned, or hired), each with a combined single limit of one million dollars (\$1,000,000) each occurrence for bodily injury and property damage liability. This policy shall name Owner as an additional insured.

5.1.4. Professional Liability Insurance with limits of one million dollars (\$1,000,000) per claim and in the aggregate covering Engineer against sums which Engineer may become obligated to pay on account of professional liability arising out of its negligent performance under this Agreement.

## 5.2. CERTIFICATES

Engineer shall provide Owner with certificates of insurance evidencing the above-described coverage upon execution of the Agreement and upon annual insurance renewal.

## 6. COMPLETION AND ACCEPTANCE

### 6.1. SCHEDULED COMPLETION

Engineer shall commence the Services at the time stated in each Request for Services and shall prosecute the Services with due diligence.

### 6.2. ACCEPTANCE

When Engineer deems it has completed the Services under a particular Request for Services, it shall so notify Owner in writing. Upon receipt of such notice, Owner may (i) accept the Services performed under that Request for Services in writing or (ii) advise Engineer in writing within ten (10) business days that it does not consider the Services completed. If Owner fails to provide such notice within the aforesaid period, the Services shall be deemed to have been completed and accepted by Owner.

## 7. TERMINATION AND CANCELLATION

### 7.1. TERMINATION BY OWNER

Should Engineer become insolvent or bankrupt, or should Engineer commit a material breach of this Agreement, and should Engineer thereafter fail to commence proceedings in good faith to remedy such breach within thirty (30) calendar days after written demand by Owner, Owner may terminate this Agreement or any applicable Request for Services in writing. Upon any such termination for cause, Engineer shall be compensated for all costs incurred and

compensation earned for the Services performed in accordance with the provisions of the applicable Request for Services.

Owner also reserves the right to terminate the Services under any Request for Services upon notice in writing to Engineer for Owner's convenience. Should the Services be so terminated by Owner, Engineer shall be paid all costs incurred and compensation earned for the Services performed to the date of termination and through demobilization, in addition to any termination charges by vendors and/or subcontractors, all in accordance with the applicable Request for Services.

7.2. TERMINATION BY ENGINEER

Should Owner become insolvent or bankrupt or commit a breach or default of any of the covenants or obligations hereunder and (a) provided such breach or default is a failure to pay money, fail to remedy the same within fifteen (15) calendar days after written notice thereof from Engineer, or (b) with respect to any other breach or default, fail to commence proceedings to remedy the same within thirty (30) calendar days after written notice thereof from Engineer and thereafter to proceed diligently in remedying the same, then Engineer may terminate or suspend this Agreement or any applicable Request for Services. Should Engineer so terminate this Agreement, it shall be paid for all costs incurred and compensation earned for Services performed to the date of termination and through demobilization, including any cancellation charges by vendors and subcontractors, all in accordance with the applicable Request for Services.

7.3. SUSPENSION/SLOWDOWN BY OWNER

If suspension of all or part of the Services and/or a project slow-down by Owner causes a decrease in the amount of Services under this Agreement or an increase in the time necessary for its performance, an equitable adjustment will be made in price (which includes, but is not limited to, lease agreements, potential demobilization and severance costs) and/or the time allowed for performance.

**8. GENERAL PROVISIONS**

8.1. INDEPENDENT CONTRACTOR

Engineer shall be an independent contractor with respect to the Services to be performed hereunder. Except as otherwise specified herein, neither Engineer nor its subcontractors, nor the employees of either, shall be deemed to be employees or agents of Owner.



8.2. SAFETY AND ENVIRONMENTAL REGULATIONS

Engineer shall follow the safety plan of Owner related to the Facilities. Job safety is the sole responsibility of Owner, individual construction contractor(s) and/or others working at the Facility, and Engineer's representation on-site will in no way diminish or eliminate that responsibility. Should Engineer see actual or potential safety hazards during Engineer's regular observation of the work, Engineer shall advise Owner's safety administrator. Engineer's failure to note such hazards shall not act to transfer responsibility from Owner, construction contractor(s) or any other party which may be responsible for safety at the Facility. It is understood that the Facility's safety program and first aid provisions will be developed and administered by others. Engineer shall not be responsible for the administration of any safety precautions or programs in connection with the Services.

8.3. FORCE MAJEURE

Any delays in or failure of performance by Owner or Engineer, other than the payment of money, shall not constitute default hereunder if and to the extent such delays or failures of performance are caused by occurrences beyond the control of Owner or Engineer, as the case may be, including, but not limited to, acts of God or the public enemy, expropriation or confiscation of facilities, compliance with any order or request of any governmental authority, act of war, acts of terrorism, rebellion or sabotage or damage resulting therefrom, fires, floods, explosion, pandemics, epidemics, quarantines, accidents, riots or strikes, or other concerted acts of workers, whether direct or indirect, or any cause, whether of the same class or kind as those specifically above named, which are not within the control of Owner or Engineer respectively, and which by the exercise of reasonable diligence, Owner or Engineer are unable to prevent.

8.4. TITLE TO PLANS AND SPECIFICATIONS

8.4.1. Title to drawings, design, plans, specifications, and like materials specifically prepared as part of the Services under this Agreement will remain with Engineer. Provided payment is made in accordance with the terms of this Agreement, Engineer grants to Owner an irrevocable, non-exclusive, royalty-free, and fully assignable (without need of Engineer consent) right to use and reproduce Engineer's drawings, designs, plans, specifications and like materials specifically prepared and delivered to Owner as part of the Services and necessary or useful for the purposes of constructing, operating, maintaining, rebuilding, or modifying the Facility set forth in the applicable Request for Services (the "Documents").

8.4.2. Any files delivered in electronic media may not work on systems and software different than those with which they were originally produced and Engineer makes no warranty as to the compatibility of these files with any other system or software. Because of the potential

degradation of electronic media over time, in the event of a conflict between the sealed original drawings and the electronic files, the sealed drawings will govern.

- 8.4.3. Owner agrees, to the fullest extent permitted by law, to defend, indemnify and hold Engineer harmless against any damages, liabilities, expenses or costs, including reasonable attorneys' fees and defense costs, arising or allegedly arising from or in any way connected with the unauthorized reuse or modification of the Documents by Owner or any entity that acquires or obtains the Documents from or through Owner, without the written authorization of Engineer.

8.5. CONFIDENTIALITY

- 8.5.1. Engineer and Owner both covenant and agree that during continuance of this Agreement neither Party will (except insofar as may be reasonably necessary to perform the Services hereunder or as required by law) without the prior permission of the other Party use, disclose or permit to be disclosed or (in case of documents) reproduce or permit to be reproduced to any person Confidential Information (defined below) acquired from or given by (i) Owner to Engineer in the course of carrying out Services under this Agreement or (ii) Engineer to Owner.
- 8.5.2. For the purpose of this Article 8, "Confidential Information" shall mean and include, all designs, drawings, specifications, plans, calculations, formulae, techniques, processes, procedures, trade secrets, or other similar intellectual property that has not been previously disclosed without restriction by the disclosing Party so long as such information is designated in writing as "confidential", "proprietary" or other words of similar import. Orally or visually transmitted information of a confidential and/or proprietary nature shall be included in the definition of Confidential Information so long as it is identified as such at the time of disclosure and confirmed in writing within (3) business days thereafter.
- 8.5.3. The confidentiality obligations hereunder shall not extend to information which: (a) at the time of disclosure is, or later becomes, part of the public domain by publication or otherwise, through no fault of the receiving Party; (b) the receiving Party can show was in its possession at the time of disclosure; (c) is subsequently disclosed to the receiving Party by a third party, which information the receiving Party reasonably believes had not been wrongfully acquired, directly or indirectly, from the disclosing Party; or (d) which the receiving Party is legally compelled (by deposition, interrogatory, request for documents, order, subpoena, or similar process issued by a court of competent jurisdiction or by a government body) to disclose.

8.5.4. Owner shall be responsible for providing Engineer with all of the data and information needed for Engineer to perform the Services. In the event Engineer is required to sign a confidentiality or proprietary information agreement directly with a third party so that Engineer may obtain or use such third-party information in the performance of the Services, Owner shall indemnify, defend and hold Engineer harmless from any and all claims, damages, expenses or causes of action resulting or arising from such third-party confidential or proprietary information agreement.

8.6. LIMITATION OF LIABILITY

8.6.1. Notwithstanding any other provisions of this Agreement to the contrary, Engineer shall in no event be responsible or held liable for any consequential, punitive, incidental, special, or indirect damages, including, but not limited to, loss of profits, loss of revenue, loss of use, loss of capital, claims of customers, cost of purchase or replacement power, or for any other loss of any nature, whether based on contract, tort, (including negligence), strict liability or otherwise, and arising from any cause whatsoever under this Agreement.

8.6.2. Engineer's aggregate liability, on a Request for Services or similar task based/purchase order document, for any and all claims arising or allegedly arising hereunder, whether in tort or contract shall be the lesser of (a) \$250,000 or (b) the compensation associated with such Request for Services or similar task based/purchase order document. Notwithstanding any other provisions of this Agreement to the contrary, Engineer's aggregate liability under this Agreement shall not exceed \$1,000,000.

8.6.3. Owner agrees that in no event shall any claims be submitted to Engineer later than twelve (12) months after Engineer's completion of the Services associated with any Request for Services or similar task based/purchase order document under which the claim would have occurred and Engineer shall have no responsibility or liability with respect to such claims.

8.6.4. Notwithstanding anything to the contrary, any claim, demand, liability, or suit brought by Owner related to the Services shall be directed and/or asserted only against the Engineer and not against any of the Engineer's employees, officers, or directors.

8.7. AUDIT AND MAINTENANCE OF RECORDS

Owner shall have the right during the performance of and for one (1) year after the completion of the Services performed on a reimbursable basis hereunder to audit and review at the offices of Engineer, during normal business hours, following thirty (30) days notice, the accounting records and supporting documents which directly relate to the labor hours and reimbursable costs invoiced for reimbursable Services performed under this Agreement. Fixed price Services, the makeup of labor hours, profit, overhead, unit rates or costs charged on a fixed unit or percentage basis, the basis of agreed upon multipliers, or of pre-determined charges are not subject to audit.

8.8. ASSIGNMENT

This Agreement shall not be assignable by either Party without the prior written consent of the other Party hereto, except that it may be assigned without such consent to the successor of either Party, or to a person, firm, or corporation acquiring all or substantially all of the business assets of such Party, or to a wholly owned subsidiary of either Party, but such assignment shall not relieve the assigning Party of any of its obligations under this Agreement. No assignment of this Agreement shall be valid until this Agreement shall have been assumed by the assignee in writing. When duly assigned in accordance with the foregoing, this Agreement shall be binding upon and shall inure to the benefit of the assignee.

8.9. SUBCONTRACTS

Engineer may subcontract any portion of the Services to a subcontractor if approved by Owner, which approval shall not be unreasonably withheld. In no case shall Owner's approval of any subcontract relieve Engineer of any of its obligations under this Agreement. Notwithstanding the foregoing, Engineer may have portions of the Services performed by its affiliated entities (or their employees) or submit invoices from such affiliates, in which event Engineer shall be responsible for such Services and Owner shall look solely to Engineer as if the Services were performed by Engineer.

8.10. PUBLIC ANNOUNCEMENTS

After Owner has made a public announcement of the Project or the Project has become public information, Engineer may make press releases/public announcements regarding its Services for its purposes including that of advising its employees, marketing its services and completing project experience listings for other clients.

8.11. NOTICES

All notices pertaining to this Agreement shall be in writing and shall be sufficient when sent via overnight delivery services with receipt confirmed, electronic mail (with oral confirmation), registered mail, or telecopied (with oral confirmation) to:

City Manager

Attention: [Contact]

[Address 1]

[Address 2]

e-mail: [owner e-mail address]

Sargent & Lundy, L.L.C.

Attention: [project director name]  
Project Director

55 East Monroe Street  
Chicago, Illinois 60603-5780

e-mail: [project director e-mail  
address]

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With copy to:

Attention: General Counsel  
55 East Monroe Street  
Chicago, Illinois 60603-5780

e-mail: legal@sargentlundy.com

8.12. COMPLIANCE WITH LAWS

In the performance of any Services under this Agreement, Engineer shall comply with all applicable provisions and requirements of the Civil Rights Act of 1964 and Executive Order 11246 of September 24, 1965, and any amendments thereto, relating to equal opportunity and non-segregated facilities, the Fair Labor Standards Act of 1938, the Occupational Safety and Health Act of 1970 and all applicable federal, state and local environmental laws. Engineer's compensation is based on compliance by Engineer with these laws and requirements as they are in effect on the effective date of this Agreement.

8.13. ENTIRE AGREEMENT

This Agreement constitutes the entire agreement between the Parties and supersedes any oral or written representations, understandings, proposals, or communications heretofore entered into by or on account of the Parties and may not be changed, modified, or amended except in writing, signed by the Parties. In the event of any conflict between this contract document and any of the exhibits hereto, the terms and provisions of this contract document shall control. In the event of any conflict among the exhibits, the exhibit of the latest date shall control.

8.14. INTERPRETATION

- 8.14.1. This Agreement will be governed by and interpreted in accordance with the laws of the State of Illinois, without regard to its choice of law provisions. The words and phrases of this Agreement shall be given their ordinary English meaning. The laws of the State of Illinois govern all matters arising out of or relating to this Agreement. In an effort to resolve any conflicts relating to this Agreement or that arise during any phase of or following completion of the Services, Owner and Engineer agree to negotiate in good faith in reaching an equitable agreement. If a satisfactory agreement is not reached between the executives of both Parties after a reasonable time period (not to exceed sixty (60) calendar days after the date on which one Party notifies the other Party in writing of the dispute), Owner and Engineer agree that any dispute may be submitted to litigation for final resolution, unless the Parties mutually agree otherwise. Any Party bringing a legal action or proceeding against the other Party arising out of or relating to this Agreement submits to the exclusive jurisdiction of and shall bring the legal action or proceeding in the United States District Court for the Northern District of Illinois or in any court of the State of Illinois sitting in Chicago, Illinois.
- 8.14.2. To the extent permitted by law, indemnities against, releases from and limitations on liability and limitations on remedies expressed in this Agreement shall extend to Engineer's subcontractors and the officers, directors, employees, licensors, agents, and related entities of such Party.
- 8.14.3. Any term or provision of this Agreement found to be invalid under any applicable statute or rule of law shall be deemed omitted and the remainder of this Agreement shall remain valid and in full force and effect.
- 8.14.4. In the event Owner uses a purchase order form or other similar Owner generated document to administer this Agreement, the use of such form shall be for convenience purposes only, and any typed provision in conflict with the terms of this Agreement and all preprinted terms and conditions contained in or on such forms shall be deemed stricken and null and void.
- 8.14.5. This Agreement gives no rights or benefits to anyone other than Owner and Engineer and does not create any third party beneficiaries to the Agreement.

IN WITNESS WHEREOF, the Parties hereto have executed this Agreement as of the effective date and year first above written.

CITY OF MANGUM

SARGENT & LUNDY, L.L.C.

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT A**

**REQUEST FOR SERVICES NO. \_\_\_\_\_**

GENERAL ENGINEERING SERVICES AGREEMENT

BETWEEN

CITY OF MANGUM, OK

AND

SARGENT & LUNDY, L.L.C.

Pursuant to the terms and conditions of the General Engineering Services Agreement executed and made effective as of the \_\_\_\_ day of \_\_\_\_\_, 2021 ("Agreement"), by and between \_\_\_\_\_ ("Owner") and SARGENT & LUNDY, L.L.C. ("Engineer"), Owner hereby requests Engineer to perform the Services as specified in Attachment 1.

This Request for Services and the Agreement constitute the complete understanding of the Parties with respect to the Services described herein. Terms and conditions contained in purchase orders, work orders or other documents issued by Owner with respect to the Services shall be of no force and effect. This Request for Services shall be effective as of \_\_\_\_\_ .

IN WITNESS WHEREOF, the Parties have executed this Request for Services as of the latest date indicated below.

CITY OF MANGUM, OK

SARGENT & LUNDY, L.L.C.

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Date: \_\_\_\_\_





**EXHIBIT B**

**BILLING RATES**

GENERAL ENGINEERING SERVICES AGREEMENT

BETWEEN

CITY OF MANGUM, OK

AND

SARGENT & LUNDY, L.L.C.

CITY OF MANGUM, OK  
ENERGY & INDUSTRIAL GROUP  
 HOURLY BILLING RATES BY CLASSIFICATION  
 EFFECTIVE FOR THE CALENDAR YEAR 2022

<u>Billing Classification</u>	<u>2022 Billing Rate</u>
Senior Manager	200
Manager	182
Senior Project Associate	167
Project Associate	151
Senior Associate II	137
Senior Associate I	123
Associate III	109
Associate II	104
Associate I	96
Senior Designer	136
Designer III	111
Designer II	93
Designer I	85
Drafter	74
Administrative II	82
Administrative I	60

Notes:

- (1) The above rates will be subject to an additional charge according to assignment location:  
 Home Office: \$6/hr charge for computer usage, reprographics usage as well as miscellaneous charges such as telephone, normal mailings, etc.,  
 Field Assignment: \$4.50/hr for field services overhead and miscellaneous charges  
 S&L also reserves the right to charge for large or special order reprographics and specialty computer expenses that exceed those typically provided.
- (2) Travel charges will be billed at actual cost.
- (3) Billing rates are considered to be proprietary to Sargent & Lundy, L. L. C. Please treat them as confidential.
- (4) Expert consultants are available upon request.
- (5) Billing Classifications include one or more S&L position categories that are typically grouped under a classification on the basis of similarities in position function, experience factors, and/or wage levels.  
 Acceptance of this schedule includes the rates shown, the period of time for which they are effective, and the combination of individual position categories that comprise each classification.
- (6) Subcontractors, if required, are subject to a 10% mark-up.