

Introduced by \_\_\_\_\_ Council Bill No. R 224-13

**A RESOLUTION**

authorizing an agreement for professional engineering services with Structure Consulting Group, LLC to analyze the City's energy management needs and prepare technical specifications for the future acquisition of an Energy Management System.

BE IT RESOLVED BY THE COUNCIL OF THE CITY OF COLUMBIA, MISSOURI, AS FOLLOWS:

SECTION 1. The City Manager is hereby authorized to execute an agreement for professional engineering services with Structure Consulting Group, LLC to analyze the City's energy management needs and prepare technical specifications for the future acquisition of an Energy Management System. The form and content of the agreement shall be substantially as set forth in "Exhibit A" attached hereto and made a part hereof.

ADOPTED this \_\_\_\_\_ day of \_\_\_\_\_, 2013.

ATTEST:

\_\_\_\_\_  
City Clerk

\_\_\_\_\_  
Mayor and Presiding Officer

APPROVED AS TO FORM:

\_\_\_\_\_  
City Counselor

**AGREEMENT  
For  
PROFESSIONAL ENGINEERING SERVICES  
Between  
THE CITY OF COLUMBIA, MISSOURI  
And  
STRUCTURE CONSULTING GROUP, LLC**

THIS AGREEMENT made as of 30<sup>th</sup> day of September, 2013, by and between the City of Columbia, Missouri, hereinafter called the CITY, and Structure Consulting Group, LLC, hereinafter called the ENGINEER.

WITNESSETH, that whereas the CITY intends to make improvements as described below, hereinafter called the PROJECT, consisting of the following:

The City of Columbia Water and Light Department is replacing its Supervisory Control and Data Acquisition (SCADA) and Automatic Generation Control (AGC) software programs. The goal of this project is to study the needs of the City of Columbia and take into account best practices common to electric utilities to recommend a suitable broad specification for the system that will serve as the basis for a request for proposal (RFP) for the detailed design and implementation of a new SCADA software platform.

NOW, THEREFORE, in consideration of the mutual covenants set out herein the parties agree as follows:

ENGINEER shall serve as CITY's professional engineering contractor in those assignments to which this Agreement applies, and shall give consultation and advice to CITY during the performance of the services. All services shall be performed under the direction of a professional engineer registered in the State of Missouri and qualified in the particular field.

**SECTION 1 - AUTHORIZATION OF SERVICES**

1.1 ENGINEER shall not undertake to begin any of the services contemplated by this agreement until directed in writing to do so by CITY. CITY may elect to authorize the PROJECT as a whole or in parts.

1.2 Authorized work may include services described hereafter as Basic Services or as Additional Services of ENGINEER.

**SECTION 2 - BASIC SERVICES OF ENGINEER**

## 2.1 General

2.1.1 Perform professional engineering services as set forth in Attachment A - "Scope of Basic Services," dated July 22, 2013.

2.1.2 The ENGINEER will designate the following listed individuals as its project team with responsibilities as assigned. The ENGINEER shall dedicate whatever additional resources are necessary to accomplish the PROJECT within the specified time frame but will not remove these individuals from the assigned tasks for any reason within the control of the ENGINEER without the written approval of the CITY.

<u>Name and Title</u>	<u>Assignment</u>
Alex Lago	Principal
Mario Marchelli	Director
Angilberto Hernandez	Practice Area Subject Matter Expert

All of the services required hereunder will be performed by the ENGINEER or under its supervision and all personnel engaged in the work shall be fully qualified and authorized or permitted under state and local law to perform such services.

None of the work or services covered by this Agreement shall be subcontracted without the prior written approval of the CITY and any work or services so subcontracted shall be subject to the provisions of this Agreement.

2.2 The ENGINEER shall furnish such periodic reports as the CITY may request pertaining to the work or services undertaken pursuant to this Agreement, the costs and obligations incurred or to be incurred, and any other matters covered by this Agreement.

2.3 The ENGINEER shall maintain accounts and records, including personnel, property and financial records, adequate to identify and account for all costs pertaining to the Agreement and any other records as deemed necessary by the CITY to assure proper accounting for all project funds. These records must be available to the CITY or its authorized representatives, for audit purposes, and must be retained for three (3) years after expiration or completion of this Agreement.

2.4 Background Information. Each Party is and will be the sole and exclusive owner of all right, title and interest in and to all of its Background Information and any associated Intellectual Property Right. "Background Information" means all technical information, computer programs, algorithms, source code, object code, know-how, ideas, concepts, processes, procedures, designs, schematics, works of authorship, inventions, and discoveries – that are or may be patented, copyrighted, registered as a mask work, protected as a trade secret or otherwise protected as an Intellectual Property Right – owned or licensed (with a right to sublicense) by a Party and any

related Intellectual Property Rights that are: owned or licensed by a Party prior to the commencement of the Agreement or discovered, developed or acquired by a Party outside the scope of the Agreement, and derivatives thereof. "Intellectual Property Rights" means with respect to the rights of any person or entity in and to the commercially valuable and proprietary property – in tangible or intangible form – including:

- (i) Copyrights, trademarks, trade names, domain names, goodwill associated with trademarks and trade names, designs, and patents;
- (ii) Rights relating to innovations, know-how, trade secrets, and confidential, technical, and non-technical information;
- (iii) Moral rights, mask work rights, author's rights, and rights of publicity; and
- (iv) Other industrial, proprietary and intellectual-property-related rights anywhere in the world, that exist as of the effective date of the Agreement or later come into existence.

Rights in the Work. Except for ENGINEER Background Information, to which CITY is granted a perpetual license below, CITY owns any Intellectual Property Right in and to the services and the deliverables, which are deemed "Work for Hire" as that term is used under United States copyright law and comparable Laws worldwide.

As between the parties, ENGINEER is and will be the sole and exclusive owner of all right, title and interest in and to all its Background Information and any associated Intellectual Property Right. CITY acquires no ownership interest to any ENGINEER Background Information or any related Intellectual Property Right. To the extent any ENGINEER Background Information is provided to CITY in connection with the services, ENGINEER grants to CITY a perpetual, nonexclusive, non-transferable, royalty-free, worldwide license to use this ENGINEER Background Information solely in conjunction with the use of the services.

2.5. During the term of this Agreement, the Parties will become exposed to information, trade secrets, processes and business practices that the disclosing Party considers confidential or proprietary ("Confidential Information"). The Parties agree to keep all Confidential Information received from or given access to by the other Party (whether orally or in writing) in the strictest confidence, to take all necessary precautions against disclosure of such information to third parties and to refrain from using such information for their own use or benefit other than as is strictly necessary to perform its obligations hereunder. Confidential Information does not include information that: (a) is now or hereafter becomes, through no act or failure to act on the part of the receiving Party, generally known or widely available to the public; (b) was known by the receiving Party prior to receiving such information or materials from the disclosing Party; or (c) is independently developed by the receiving Party without using, incorporating, referencing, recreating or relying upon any of the Confidential Information. The foregoing shall not prohibit any Party from disclosing information if compelled to do so

by valid subpoena or regulatory process or if the information is an open record pursuant to the Missouri Sunshine Law, provided that the disclosing Party shall first provide the other Party with reasonable written notice thereof prior to such disclosure and an opportunity to defend against disclosure. All tangible copies or storage media including Confidential Information of one Party in the possession of the other shall be returned within thirty (30) days following expiration or termination of this Agreement, provided that each Party may retain one (1) copy thereof for archival purposes, all of which shall be held subject to the obligations under this Section.

### SECTION 3 - ADDITIONAL SERVICES OF ENGINEER

#### 3.1 General

If authorized in writing by CITY, and agreed to in writing by ENGINEER, ENGINEER shall furnish or obtain from others Additional Services of the following types which are not considered normal or customary Basic Services. The scope of Additional Services may include:

##### 3.1.1 Financial Consultation

Consult with CITY's fiscal agents and bond attorneys and provide such engineering data as required for any bond prospectus or other financing requirements

##### 3.1.2 Property Procurement Assistance

Provide consultation and assistance on property procurement as related to professional engineering services being performed.

##### 3.1.3 Obtaining Services of Others

Provide through subcontract the services or data set forth in Attachment A.

##### 3.1.4 Preliminary or final engineering design of capital facilities except as specifically identified herein.

##### 3.1.5 Preparation of reports, data, application, etc., in connection with modifications to FEMA floodplain definition and/or mapping.

##### 3.1.6 Extra Services

Services not specifically defined heretofore that may be authorized in writing by CITY.

### SECTION 4 - RESPONSIBILITIES OF CITY

#### 4.1 Provide full information as to CITY's requirements for the PROJECT.

#### 4.2 Assist ENGINEER by placing at ENGINEER's disposal available information pertinent to the assignment including previous reports and other data

relative thereto, including the items outlined in Attachment A - "Scope of Basic Services," dated July 22, 2013.

4.3 Guarantee access to and make all provisions for ENGINEER to enter upon public and private property as required for ENGINEER to perform his services under this Agreement.

4.4 Examine all studies, reports, sketches, estimates, Bid Documents, Drawings, proposals and other documents presented by ENGINEER and render in writing decisions pertaining thereto.

4.5 Provide such professional legal, accounting, financial and insurance counseling services as may be required for the PROJECT.

4.6 Designate Eric Worts, as CITY's representative with respect to the services to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define CITY's policies and decisions with respect to materials, equipment, elements and systems to be used in the PROJECT, and other matters pertinent to the services covered by this Agreement.

4.7 Give prompt written notice to ENGINEER whenever CITY observes or otherwise becomes aware of any defect in the PROJECT.

4.8 Furnish approvals and permits from all governmental authorities having jurisdiction over the PROJECT and such approvals and consents from others as may be necessary for completion of the PROJECT.

4.9 Furnish ENGINEER data such as probings and subsurface explorations, with appropriate professional interpretations; property, boundary, easement, right-of-way, topographic and utility surveys; zoning and deed restriction; and other special data or consultations, all of which ENGINEER may rely upon in performing his services under this Agreement.

## SECTION 5 - PERIOD OF SERVICE

5.1 This Agreement will become effective upon the first written notice by CITY authorizing services hereunder.

5.2 This Agreement shall be applicable to all work assignments authorized by CITY subsequent to the date of its execution and shall be effective as to all assignments authorized.

5.3 Services shall be started within 10 calendar days of Notice to Proceed and

completed within 100 calendar days from the issuance of the Notice to Proceed. CITY shall have the right to establish performance times for individual phases or elements of the PROJECT by delivering a written schedule setting out the performance times to the ENGINEER.

## SECTION 6 - PAYMENTS TO ENGINEER

### 6.1 Amount of Payment

6.1.1 For services performed, CITY shall pay ENGINEER the sum of amounts determined as follows:

6.1.1.1 For time spent by personnel, payment at the hourly rates indicated in the "Schedule of Hourly Labor Billing Rates" (attached). Such rates include overhead and profit. The schedule is effective to December 31, 2013, and may be revised thereafter.

6.1.1.2 For outside expenses incurred by ENGINEER, such as authorized travel and subsistence, commercial services, and incidental expenses, the cost to ENGINEER.

6.1.1.3 For reproduction, printing, long-distance telephone calls, company vehicle usage, testing apparatus, computer services and computer-assisted drafting (CAD), amounts will be charged according to the ENGINEER's standard rates in effect at the time service is provided.

6.1.1.4 For professional services rendered by others as subcontractor(s) to ENGINEER such as surveying, real property descriptions, soil borings, subsurface investigations, laboratory testing, field quality control tests, progress photos, or other activities required or requested by CITY, will be billed at the cost to ENGINEER.

6.1.1.5 For time spent by outside individual professional consultants employed by ENGINEER in providing services to CITY, the cost to ENGINEER. Expenses incurred by such outside consultants in service to CITY shall be reimbursable in accordance with 6.1.1.2 above.

6.1.1.6 CITY shall bear all transaction taxes on the services provided hereunder (including, but not limited to, sales, excise, use, value added, goods and services, service, compensatory, consumption and business taxes, and similar taxes). ENGINEER shall state applicable transaction taxes on its invoice and pay all collected taxes to the appropriate taxing authority. ENGINEER recognizes that CITY claims tax exempts status, and CITY agrees to provide ENGINEER with evidence of such tax exemption upon the request of ENGINEER. To the extent that such tax exemption cannot be properly claimed or does not extend to certain taxes or transactions, CITY shall be responsible for any and all sales taxes that arise from this Agreement and

related transactions.

6.1.2 Total payment for Scope of Services and all other expenses and costs to the City under this agreement and described herein **shall not exceed one hundred fifteen thousand dollars (\$115,000.00).**

## 6.2 Payments

6.2.1 The ENGINEER shall submit an invoice for services rendered to the CITY not more than once every month. Upon receipt of the invoice and progress report, the CITY will, within thirty (30) days, pay the ENGINEER for the services rendered, provided the CITY does not contest the invoice.

## SECTION 7 - GENERAL CONSIDERATIONS

### 7.1 Insurance

7.1.1 **ENGINEER'S INSURANCE:** ENGINEER agrees to maintain, on a primary basis and at its sole expense, at all times during the life of this contract the following insurance coverages, limits, including endorsements described herein. The requirements contained herein, as well as CITY's review or acceptance of insurance maintained by ENGINEER is not intended to and shall not in any manner limit or qualify the liabilities or obligations assumed by ENGINEER under this contract

**Commercial General Liability** ENGINEER agrees to maintain Commercial General Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one occurrence covering both bodily injury and property damage, including accidental death. Coverage shall not contain any endorsement(s) excluding nor limiting Contractual Liability or Cross Liability. If the contract involves any underground/digging operations, the general liability certificate shall include X, C and U (Explosion, Collapse and Underground) coverage.

**Professional Liability** ENGINEER agrees to maintain Professional (Errors & Omissions) Liability at a limit of liability not less than **\$2,000,000** per claim and **\$2,000,000** aggregate. For policies written on a "Claims-Made" basis, ENGINEER agrees to maintain a Retroactive Date prior to or equal to the effective date of this contract. In the event the policy is canceled, non-renewed, switched to an Occurrence Form, retroactive date advanced; or any other event triggering the right to purchase a Supplemental Extended Reporting Period (SERP) during the life of this contract, ENGINEER agrees to purchase a SERP with a minimum reporting period not less than two (2) years. The requirement to purchase a SERP shall not relieve ENGINEER of the obligation to provide replacement coverage.

**Business Automobile Liability** ENGINEER agrees to maintain Business Automobile Liability at a limit of liability not less than **\$2,000,000** combined single limit for any one

occurrence and not less than \$150,000 per individual, covering both bodily injury, including accidental death, and property damage, to protect themselves from any and all claims arising from the use of the ENGINEER's own automobiles, and trucks; hired automobiles, and trucks; and automobiles both on and off the site of work. Coverage shall include liability for Owned, Non-Owned & Hired automobiles. In the event ENGINEER does not own automobiles, ENGINEER agrees to maintain coverage for Hired & Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

**Workers' Compensation Insurance & Employers' Liability** ENGINEER agrees to take out and maintain during the life of this contract, Employers' Liability and Workers' Compensation Insurance for all of their employees employed at the site of the work, and in case any work is sublet, the ENGINEER shall require the subcontractor similarly to provide Workers' Compensation Insurance for all the latter's employees unless such employees are covered by the protection afforded by the ENGINEER. Workers' Compensation coverages shall meet Missouri statutory limits. Employers' Liability minimum limits shall be \$500,000 each employee, \$500,000 each accident and \$500,000 policy limit. In case any class of employees engaged in hazardous work under this contract is not protected under the Workers' Compensation Statute, the ENGINEER shall provide and shall cause each subcontractor to provide Employers' Liability Insurance for the protection of their employees not otherwise protected.

**Excess/Umbrella Liability** The above liability limits may be satisfied by any combination of primary and excess/umbrella liability policies.

**Additional Insured** ENGINEER agrees to endorse CITY as an Additional Insured with a CG 2026 Additional Insured – Designated Person or Organization endorsement, or similar endorsement, to the Commercial General Liability. The Additional Insured shall read "City of Columbia."

**Waiver of Subrogation** ENGINEER agrees by entering into this contract to a Waiver of Subrogation for each required policy herein except professional liability. When required by the insurer, or should a policy condition not permit ENGINEER to enter into an pre-loss agreement to waive subrogation without an endorsement, then ENGINEER agrees to notify the insurer and request the policy be endorsed with a Waiver of Transfer of Rights of Recovery Against Others, or its equivalent. This Waiver of Subrogation requirement shall not apply to any policy, which includes a condition specifically prohibiting such an endorsement, or voids coverage should ENGINEER enter into such an agreement on a pre-loss basis.

**Certificate(s) of Insurance** ENGINEER agrees to provide CITY with Certificate(s) of Insurance evidencing that all coverages, limits and endorsements required herein are maintained and in full force and effect. Said Certificate(s) of Insurance shall include a minimum thirty (30) day endeavor to notify due to cancellation or non-renewal of coverage. The Certificate(s) of Insurance shall name the City as additional insured in an

amount as required in this contract and contain a description of the project or work to be performed.

**Right to Revise or Reject** CITY reserves the right, but not the obligation, to review and revise any insurance requirement, not limited to limits, coverages and endorsements based on insurance market conditions affecting the availability or affordability of coverage; or changes in the scope of work / specifications affecting the applicability of coverage. Additionally, the CITY reserves the right, but not the obligation, to review and reject any insurance policies failing to meet the criteria stated herein or any insurer providing coverage due of its poor financial condition or failure to operating legally.

7.1.2                    **HOLD HARMLESS AGREEMENT:** To the fullest extent not prohibited by law, ENGINEER shall indemnify and hold harmless the City of Columbia, its directors, officers, agents and employees from and against all claims, damages, losses and expenses (including but not limited to attorney's fees) for death, bodily injury or damage to property to the extent arising by reason of any negligent act or failure to act, or willful misconduct, of ENGINEER, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with ENGINEER or a subcontractor for part of the services), of anyone directly or indirectly employed by ENGINEER or by any subcontractor, or of anyone for whose acts the ENGINEER or its subcontractor may be liable, in connection with providing these services except as provided in this Agreement. This provision does not, however, require ENGINEER to indemnify, hold harmless or defend the City of Columbia from its own negligence, except as set out expressly herein.

7.1.3                    **Professional Oversight Indemnification**

The ENGINEER understands and agrees that CITY has contracted with ENGINEER based upon ENGINEER's representations that ENGINEER is a skilled professional and fully able to provide the services set out in this Agreement. In addition to any other indemnification set out in this Agreement, ENGINEER agrees to defend, indemnify and hold and save harmless the CITY from any and all claims, settlements and judgments whatsoever arising out of the CITY's alleged negligence in hiring or failing to properly supervise the ENGINEER.

The insurance required by this Agreement shall include coverage which shall meet ENGINEER's obligations to indemnify the CITY as set out above and the CITY shall be named as co-insured for such insurance.

7.2                    **Professional Responsibility**

7.2.1 ENGINEER will exercise reasonable skill, care, and diligence in the performance of its services and will carry out its responsibilities in accordance with customarily accepted good professional engineering practices. If the ENGINEER fails to meet the foregoing standard, ENGINEER will perform at its own cost, and without reimbursement from CITY, the professional engineering services necessary to correct errors and omissions which are caused by ENGINEER's failure to comply with above standard, and which are reported to ENGINEER within ninety (90) days from the completion of ENGINEER's services for the PROJECT. THE ABOVE IS A LIMITED AND EXCLUSIVE WARRANTY AND STATES THE SOLE AND EXCLUSIVE REMEDY AGAINST ENGINEER BASED ON ANY DEFECTS IN OR NONPERFORMANCE OF SERVICES UNDER ANY THEORY. ENGINEER EXPRESSLY DISCLAIMS ALL OTHER WARRANTIES AND REPRESENTATIONS, INCLUDING ALL WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE EXCEPT AS OUTLINED IN THE SCOPE OF WORK, AND NON-INFRINGEMENT. IN NO EVENT SHALL EITHER PARTY OR ITS AGENTS OR REPRESENTATIVES BE LIABLE FOR INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES INCLUDING BUT NOT LIMITED TO LOST PROFITS, EVEN IF THAT PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. EACH PARTY'S TOTAL LIABILITY ARISING OUT OF THIS AGREEMENT AND THE SERVICES PROVIDED HEREUNDER, WHETHER UNDER THEORIES OF CONTRACT, NEGLIGENCE, STRICT LIABILITY IN TORT OR WARRANTY SHALL NOT EXCEED TWO TIMES THE AMOUNTS PAID BY CITY TO ENGINEER UNDER THIS AGREEMENT.

7.2.2 In addition, ENGINEER will be responsible to CITY for damages to the extent caused by ENGINEER's negligent conduct during its activities at the PROJECT site or in the field.

### 7.3 Estimates and Projections

Estimates and projections prepared by ENGINEER relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, and operating results are based on ENGINEER's experience, qualifications and judgment as a design professional. Since ENGINEER has no control over weather, cost and availability of labor, material and equipment, labor productivity, construction contractor's procedures and methods, unavoidable delays, construction contractor's methods of determining prices, economic conditions, competitive bidding or market conditions and other factors affecting such estimates or projections, ENGINEER does not guarantee that actual rates, costs, performance, schedules, etc., will not vary from estimates and projections prepared by ENGINEER.

### 7.4 On-Site Services

PROJECT site visits by ENGINEER during construction shall not make ENGINEER responsible for construction means, methods, techniques, sequences or procedures; for construction safety precautions or programs; or for any construction contractor(s') failure to perform its work in accordance with the plans and specifications.

#### 7.5 Changes

CITY shall have the right to make changes within the general scope of ENGINEER's services, with an appropriate change in compensation, upon execution of a mutually acceptable amendment or change order signed by an authorized representative of the CITY and the President or any Vice President of the ENGINEER.

#### 7.6 Suspension of Services

Should CITY fail to fulfill its responsibilities as provided under Section 4 to the extent that ENGINEER is unduly hindered in his services or if CITY fails to make any payment to ENGINEER on account of its services and expenses within ninety (90) days after receipt of ENGINEER's bill therefor, ENGINEER may, after giving seven (7) days' written notice to CITY, suspend services under this Agreement until CITY has satisfied its obligations under this Agreement.

#### 7.7 Termination

Services may be terminated by the CITY at any time and for any reason, and by the ENGINEER in the event of substantial failure to perform in accordance with the terms hereof by the CITY through no fault of the ENGINEER, by twenty (20) days' notice. If so terminated, CITY shall pay ENGINEER all uncontested amounts due ENGINEER for all services properly rendered and expenses incurred to the date of termination.

7.7.1 In the event of CITY's termination of the Agreement pursuant to the above section, all finished or unfinished documents, data, studies, surveys, drawings, maps, models, photographs and reports prepared under this Agreement, which are not ENGINEER Property shall at the option of the CITY become its property.

Further, the ENGINEER shall not be relieved of any liability to the CITY for any damages sustained by the CITY by virtue of any breach of this Agreement by ENGINEER.

#### 7.8 Publications

Recognizing the importance of professional development on the part of ENGINEER's employees and the importance of ENGINEER's public relations, ENGINEER may prepare publications, such as technical papers, articles for periodicals, and press releases, pertaining to ENGINEER's services for the PROJECT. Such publications will be provided to CITY in draft form for CITY's advance review. CITY will review such drafts promptly and will provide comments to ENGINEER. CITY may require deletion of proprietary data or confidential information from such publications but otherwise will not unreasonably withhold its approval. The cost of ENGINEER's activities pertaining to any such publication shall be paid entirely by ENGINEER.

7.9 Nondiscrimination

During the performance of this Agreement, ENGINEER agrees to the following:

7.9.1. ENGINEER shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, age, handicap, or national origin. ENGINEER shall take affirmative action to ensure that applicants are employed and that employees are treated during employment without regard to their race, color, religion, sex, age, handicap, or national origin. Such action shall include, but not be limited to the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. ENGINEER agrees to post notices in conspicuous places, available to employees and applicants for employment.

7.9.2 ENGINEER shall, in all solicitation or advertisements for employees placed by or on behalf of ENGINEER, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age, handicap, or national origin.

7.9.3 ENGINEER shall comply with all provisions of State and Federal Laws governing the regulation of Equal Employment Opportunity including Title VI of the Civil Rights Act of 1964.

7.10 Successor and Assigns

CITY and ENGINEER each binds himself and his successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party, in respect to all covenants of this Agreement; except as above, neither CITY nor ENGINEER shall assign, sublet or transfer his interest in the Agreement without the written consent of the other.

7.11 Rights and Benefits

ENGINEER's services will be performed solely for the benefit of the CITY and not for the benefit of any other persons or entities.

7.12 Compliance with Local Laws

ENGINEER shall comply with all applicable laws, ordinances and codes of the state and city.

7.13 Law; Submission to Jurisdiction Governing.

This Contract shall be governed by, interpreted and enforced in accordance with the laws of the State of Missouri and/or the laws of the United States, as applicable. The venue for all litigation arising out of, or relating to this Contract Document, shall be Boone County, Missouri or the United States Western District of

Missouri. The parties hereto irrevocably agree to submit to the exclusive jurisdiction of such courts in the State of Missouri and waive any defense of forum non conveniens

#### 7.14 Employment of Unauthorized Aliens Prohibited

7.14.1 ENGINEER agrees to comply with Missouri State Statute section 285.530 in that they shall not knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

7.14.2 As a condition for the award of this contract ENGINEER shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. ENGINEER shall also sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services.

7.14.3 ENGINEER shall require each subcontractor to affirmatively state in its contract with ENGINEER that the subcontractor shall not knowingly employ, hire for employment or continue to employ an unauthorized alien to perform work within the state of Missouri. ENGINEER shall also require each subcontractor to provide ENGINEER with a sworn affidavit under the penalty of perjury attesting to the fact that the subcontractor's employees are lawfully present in the United States.

#### 7.15 No Waiver of Immunities

In no event shall the language of this Agreement constitute or be construed as a waiver or limitation for either party's rights or defenses with regard to each party's applicable sovereign, governmental, or official immunities and protections as provided by federal and state constitutions or laws.

#### 7.16 Entire Agreement

This Agreement represents the entire and integrated Agreement between ENGINEER and CITY relative to the Scope of Services herein. All previous or contemporaneous agreements, representations, promises and conditions relating to ENGINEER's services described herein are superseded.

**[SIGNATURES ON FOLLOWING PAGE]**

**CITY OF COLUMBIA, MISSOURI**

By: \_\_\_\_\_

Mike Matthes, City Manager

ATTESTED BY:

\_\_\_\_\_  
Sheela Amin, City Clerk

APPROVED AS TO FORM:

\_\_\_\_\_  
Nancy Thompson, City Counselor

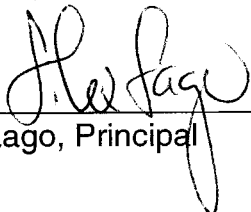
CERTIFICATION:

I hereby certify that the above expenditure is within the purpose of the appropriation to which it is charged, Account No. 551-7110-801.6870 ELO<sup>187</sup>, and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

\_\_\_\_\_  
Director of Finance

**STRUCTURE CONSULTING GROUP, LLC**

By: \_\_\_\_\_

  
Alex Lago, Principal

**ATTACHEMENT A – SCOPE OF SERVICES**  
**July 22, 2013**

**Energy Management System Engineering Study**

Project Understanding

The City of Columbia Water and Light Department (“CWL”) is replacing its Supervisory Control and Data Acquisition (SCADA) and Automatic Generation Control (AGC) system. CWL has initiated a project to perform an engineering study to analyze their needs for the mentioned system and to prepare a suitable technical specification for it while taking into consideration the best practices common to electric utilities. The scope of this engineering study will be the following:

- Education - Full Day training session covering:
  - SCADA Concepts, functionality, cost,
  - Water production SCADA systems
  - Overview of the current SCADA/AGC market and the vendor landscape
  - Cyber Security (NERC CIP)
  - Smart Grid roadmap
- System Design:
  - Assessment of the existing SCADA/AGC system and infrastructure
  - Gathering of requirements for a replacement system including considerations for its integration with the existing system wide Energy Management System (EMS) environment and compliance with CIP standards and requirements
  - Development of a solution design for the new SCADA/AGC system
  - Development of an estimated cost
- Preparation of the technical specification

**Phase 1 - Project Planning Phase**

This project phase will focus on finalizing the scope of work and the project schedule. A project kick-off meeting will be used to review the project scope, identify stakeholders and their roles & responsibilities, introduce the project team and set expectations. This meeting will be organized as follows:

- Part I (Project Team, Stakeholders, Project Sponsors)
  - Introduce project team, stakeholders and project sponsors
  - Review project objectives
  - Review risks
  - Review roles and responsibilities
- Part II (Project Team)
  - Review and clarify project tasks and deliverables
  - Review and clarify the SOW
  - Review project schedule

- Discuss logistics
- Confirm in detail the initial project task(s) and steps to get started
- Discuss policies and procedures governing execution of the project

## **Phase 2 - Instructional Workshop**

Structure will conduct a whole day workshop with the following curriculum:

1. SCADA concepts and functionality
2. Use of shared versus independent SCADAs: Generation/Transmission/Distribution
3. SCADA for Water operations
4. System design concepts
  - a. Control Centers
  - b. Communications infrastructure
  - c. Security, redundancy and performance
5. Implementing a new SCADA
  - a. Advantages
  - b. Considerations and risks
  - c. Schedule and cost
6. Substation Automation
7. Smart Grid
  - a. Overview
  - b. Applications
  - c. Road map
8. SCADA vendors landscape
9. Open forum for questions and discussion

This workshop will be performed in the CWL facilities. Structure will prepare the material to be presented as well as facilitate, with its experts, the discussions and open forum at the end.

## **Phase 3 - Assessment Phase**

This project phase will focus on conducting an assessment of the existing systems, gathering requirements and priorities for a replacement SCADA system considering the current SCADA/AGC market and best practices for this type of solutions.

1. Assessment of the CWL infrastructure and existing SCADA/AGC System

This task will focus on assessing the existing SCADA/AGC system and infrastructure. The task will involve a site visit by Structure to review the existing SCADA/AGC capabilities; evaluate CWL infrastructure, gather and review relevant system documentation. An important part of the information gathering will be interview sessions with CWL's SMEs and Business Owners to develop an understanding of the system and the processes around it. In particular, this task will serve to review all components of the system including:

- Hardware Platform
- Network and Telecommunications Infrastructure
- Operating System
- Third Party Software

- Architecture
- Database and Display Sizing
- SCADA Applications
- AGC Applications
- Security
- Compliance
- Current Version of Vendor Products
- Processes and Procedures
- Organization
- Fault Tolerance
- Enterprise Integration and Interfaces
- Operational Maintenance
- System Maintenance (e.g. long term support contract)
- Known Issues and Functional Gaps
- Disaster Recovery
- Supportability
- Cyber Security

## 2. Gather Requirements and Priorities

This task will focus on conducting data gathering sessions with the CWL's SMEs and Business Owners to collect and discuss requirements, priorities and the future state vision for a system that will satisfy CWL's needs. These sessions will be aimed at developing requirements in all the functional areas of the system as defined by CWL and Structure during the project's planning phase. As a minimum the following areas will be covered during this task execution:

- System Architecture and General System Requirements
  - System architecture and environment options
  - Hardware, operating systems and network architecture.
  - System configuration and control
  - Network time synchronization, daylight savings time adjustments and time zones
  - Initial database and display development
  - Cyber security requirements
  - Sizing, system performance and availability
  - Support for database type object oriented options and service oriented architecture.
  - Others
- Business and Functional Requirements
  - SCADA
    - Database Management including Source Data Base Editor, support for Common
    - Information Model (CIM), online database editing, etc.
    - Data Acquisition
    - Data Processing
    - Supervisory Control
    - ICCP

- Load Shed & Restore including Rotating Load Shed
- Limit Manager including temperature based limit sets
- Disturbance Data Collection
- Alarm and Event Processing
- Real-Time Periodic Calculations
- Others
- User Interface:
  - Graphical User Interface
  - Remote User Interface System
  - Trending
  - Display Management (Display Editor)
- AGC Applications:
  - Automatic Generation Control (AGC)
  - Economic Dispatch
  - Ancillary Services Monitoring
  - Others
- Dispatcher Training Simulator
  - Requirements for training System Operators
  - Information Storage & Retrieval:
    - Analog/Digital/Status Data Storage
    - Event/Alarm Data Storage
    - Data Archival and Retrieval
    - Displays, Trending, and Reporting
    - Historical Information System (Historian)
    - Historical Data Playback
    - Others
- External Interfaces
  - MISO
  - TEA
  - Map Interface
  - Outage Management System (OMS)
  - Future Smart Grid/DA
  - Corporate systems/applications
  - Others
- Regulatory/Compliance Requirements
  - Cyber Security, Backup Control Functionality, etc.

#### **Phase 4 - Develop a Recommended Design for the Replacement System**

This phase will focus on developing a solution design and technical specification for a replacement SCADA/AGC system that meets CWL's requirements. The task will also develop a high-level cost estimate for the implementation of the system.

##### **1. Solution Design Development**

This task will focus on developing a functional design for a solution that will satisfy CWL's requirements for the SCADA/AGC system replacement. The solution design process will take into consideration:

- CWL's requirements, priorities and future state vision including:
  - System Architecture and General System Requirements
  - Functional and Business requirements
  - Compliance and Regulatory Requirements

## 2. Evaluation current SCADA/AGC market and best practices

This task will focus on conducting an evaluation of the current SCADA/AGC market and best practices in order to identify the possible solutions for CWL. Structure will also present CWL with viable options to implement a good solution considering the Vendors offerings.

The evaluation will identify the gaps between CWL's requirements and priorities and the capability of the vendor products currently available. This will help identify functional areas which may require customizations and therefore more detailed definition in the technical specification.

Structure will conduct a workshop to discuss industry best practices and emerging trends in relation to the requirements and needs of CWL. The workshop will be focused on ensuring that the CWL's SMEs and Business Owners have a good understanding of the current possible solutions with their corresponding strengths and weaknesses. The information analyzed as part of this task will provide a preliminary list of vendor recommendations for CWL to consider. This workshop will be based on Structure's experience with these systems and CWL requirements and needs. Its purpose is primarily to help CWL to narrow the field of vendors to evaluate in more detail. At a minimum, Structure anticipates discussing the following vendors during this workshop:

- Alstom Grid
- EFACEC ACS
- GE Energy
- Open Systems International (OSI)
- Schneider/Telvent
- Siemens
- Ventyx/ABB

Structure's personnel will develop a set of alternatives for consideration based on the CWL's requirements, priorities and future state vision previously gathered and its knowledge and understanding of the current vendor landscape. Structure's personnel will then facilitate sessions with CWL's SMEs and Business Owners to discuss these alternatives.

This task will result in a deliverable summarizing the recommendation of viable vendor that can provide a solution for CWL.

## 3. Technical Specification Development

This task will focus on preparing a Technical Specification for the new SCADA/AGC system. Structure's personnel will develop an initial draft of the technical specification based on the gathered functional and technical requirements and priorities; the solution design, the review of

the vendor landscape and Structure's SCADA/EMS specification collateral that can be leveraged.

The initial draft of the Technical Specification will be provided to the CWL project team for review and meetings will be scheduled to review and discuss content with Structure's team. The technical specification will be updated appropriately with the outcome of the review sessions. Review meetings will be conducted until the Technical Specification is finalized.

#### 4. Development of Implementation Cost Estimate

This task will focus on developing a high-level cost estimate for the implementation of the replacement SCADA/AGC system. Structure will use its knowledge of the market costs for similar systems, its experience with SCADA/AGC projects' implementation effort, and if necessary requested budgetary quotation from vendors for a replacement system, in order to develop and fine tune this estimate.

#### Deliverables

- Instructional Workshop
- Summary of Requirements, Priorities and Future State Vision
- Vendor Landscape Summary Report
- SCADA/AGC System Solution Design
- Technical Specification
- Implementation Cost Estimate

**ATTACHEMENT B – SCHEDULE OF HOURLY BILLING RATES**  
**July 22, 2013**

**Energy Management System Engineering Study**

<b><u>Classification</u></b>	<b><u>Hourly Billing Rate</u></b>
Executive	\$ 285
PA SME	\$ 250
Sr. Manager	\$ 225
Manager	\$ 200
Sr. Consultant	\$ 165
Consultant	\$ 130
Technician	\$ 100
Clerical	\$ 65

Expenses will be invoiced as actuals and will include coach class airfare, lodging for overnight stays, parking, and meal and incidental expenses. Meals and incidentals will be invoiced as per diems at rates shown on the [www.gsa.gov](http://www.gsa.gov) website.

**NOTICE TO VENDORS**  
**Section 285.525 – 285.550 RSMo Effective January 1, 2009**

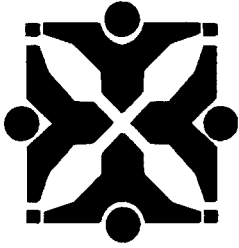
Effective January 1, 2009 and pursuant to RSMo 285.530 (1), No business entity or employer shall knowingly employ, hire for employment, or continue to employ an unauthorized alien to perform work within the state of Missouri.

As a condition for the award of any contract or grant in excess of five thousand dollars by the state or by any political subdivision of the state to a business entity, or for any business entity receiving a state administered or subsidized tax credit, tax abatement, or loan from the state, the business entity shall, by sworn affidavit and provision of documentation, affirm its enrollment and participation in a federal work authorization program with respect to the employees working in connection with the contracted services. Every such business entity shall sign an affidavit affirming that it does not knowingly employ any person who is an unauthorized alien in connection with the contracted services. [RSMO 285.530 (2)]

An employer may enroll and participate in a federal work authorization program and shall verify the employment eligibility of every employee in the employer's hire whose employment commences after the employer enrolls in a federal work authorization program. The employer shall retain a copy of the dated verification report received from the federal government. Any business entity that participates in such program shall have an affirmative defense that such business entity has not violated subsection 1 of this section. [RSMO 285.530 (4)]

For vendors that are not already enrolled and participating in a federal work authorization program, E-Verify is an example of this type of program. Information regarding E-Verify is available at:  
[http://www.dhs.gov/xprevprot/programs/gc\\_1185221678150.shtm](http://www.dhs.gov/xprevprot/programs/gc_1185221678150.shtm).





Source: Water & Light

Agenda Item No:

To: City Council  
From: City Manager and Staff

Council Meeting Date: Nov 4, 2013

Re: Engineering Services Agreement - Energy Management System Study

#### **EXECUTIVE SUMMARY:**

Staff has prepared for Council consideration a resolution authorizing the City Manager to execute an agreement with Structure Consulting Group, LLC of Austin, Texas to provide engineering services to analyze the energy management needs of the city and prepare technical specifications for the future acquisition of an Energy Management System. This agreement is for an amount not to exceed \$115,000.00.

#### **DISCUSSION:**

The City of Columbia is currently in the implementation phase of the Columbia Financial Enterprise Resource System (COFERS) project to unify the City's budgeting, billing, purchasing, accounting, and project management functions. This study presents an opportunity to integrate the Department's future Energy Management System (EMS) with the planned COFERS implementation. Columbia Water and Light currently maintains a Supervisory Control and Data Acquisition System (SCADA) to operate the power supply grid which is outdated and relies on obsolete technologies. This system needs to be replaced to be brought into compliance with the North American Electric Reliability Corporation's (NERC) critical infrastructure protection requirements which become effective in 2015. A new EMS would replace the existing outdated SCADA system and integrate with the new Customer Information Systems (CIS) and Utility Billing systems of the the new COFERS enterprise system.

The Structure Consulting Group, LLC of Austin Texas was selected from responses to the City's Request for Proposals on May 24, 2013. Three consulting firms; Structure Consulting Group, Power System Engineering, and Horner and Shifrin submitted proposals in response to this Request for Proposals. The intent of this engineering study is to evaluate the utility's current systems and advise the city on how best to take advantage of current technology, prepare for future technology, and recommend features that provide Water and Light utility personnel and ratepayers the best service. This study will assist the Department in bringing the current systems into compliance with pending NERC security requirements and align the Utility with established industry best practices.

The proposed scope of services, as defined in Attachment "A" of the attached engineering services agreement, includes an educational workshop for Water and Light employees, an evaluation of needs of the Utility and preparation of a specification that will be used in a request for proposals to select the provider of an Energy Management System.

#### **FISCAL IMPACT:**

The proposed contract with Structure Consulting Group is not to exceed \$115,000.00 with an estimated time of completion of 105 calendar days. Funding for this project comes from fiscal year 2014 CIP funds appropriated under project EL0187 for the acquisition of a new Energy Management System (EMS) .

#### **VISION IMPACT:**

<http://www.gocolumbiamo.com/Council/Meetings/visionimpact.php>

In accordance with section 3.4, this project will establish an Energy Management System for Columbia Water and Light which will use advancing technology to streamline data acquisition about energy use and system control to the provide the Utility and rate payers the best quality electric service well into the future.

#### **SUGGESTED COUNCIL ACTIONS:**

Approval this resolution authorizing the City Manager to execute an agreement with Structure Consulting Group for engineering services related to the development of an Engergy Management System technical specification.

FISCAL and VISION NOTES:					
City Fiscal Impact Enter all that apply		Program Impact		Mandates	
City's current net FY cost	\$115,000.00	New Program/ Agency?	No	Federal or State mandated?	No
Amount of funds already appropriated	\$115,000.00	Duplicates/Expands an existing program?	No	Vision Implementation impact	
Amount of budget amendment needed	\$0.00	Fiscal Impact on any local political subdivision?	No	Enter all that apply: Refer to Web site	
Estimated 2 year net costs:		Resources Required		Vision Impact?	Yes
One Time	\$0.00	Requires add'l FTE Personnel?	No	Primary Vision, Strategy and/or Goal Item #	3.4
Operating/ Ongoing	\$0.00	Requires add'l facilities?	No	Secondary Vision, Strategy and/or Goal Item #	5.1
		Requires add'l capital equipment?	No	Fiscal year implementation Task #	