

AGREEMENT
For
PROFESSIONAL ENGINEERING SERVICES
Between
THE CITY OF COLUMBIA, MISSOURI
And
LEIDOS ENGINEERING, LLC

THIS AGREEMENT (hereinafter “Agreement”) between the City of Columbia, Missouri, a municipal corporation (hereinafter “City”) and Leidos Engineering, LLC, with of its principal place of business at 12901 Science Drive, Orlando, FL 32826, (hereinafter “Consultant”) is entered into on the date of the last signatory noted below (the “Effective Date”). City and Consultant are each individually referred to herein as a “Party” and collectively as the “Parties.”

WITNESSETH:

WHEREAS, City desires to engage the Consultant to render professional engineering services of Electric Transmission Dynamic Studies as outlined in the Scope of Work in Exhibit A; and

WHEREAS, Consultant represents and warrants that Consultant is equipped, competent, and able to provide all of the professional services necessary or appropriate in accordance with the Standard of Care as set forth in 1. Services and Performance Standards.

NOW, THEREFORE, in consideration of the mutual covenants set out in this Agreement and for other good and valuable consideration (the receipt and sufficiency of which is hereby acknowledged), the Parties agree as follows.

1. Services and Performance Standards.
 - a. Scope of Services. The scope of services involves engineering services to complete local and regional electric transmission dynamic system modeling and transient stability analysis (hereinafter “Project”). The Project is more fully described in Consultant’s Proposal for 2025 Engineering Services – Electric Transmission Dynamic Studies, dated August 19, 2025, (hereinafter “Consultant’s Proposal”) which is attached as Exhibit A and incorporated herein.
 - b. Prior to beginning any work on Project, Consultant shall resolve with City any perceived ambiguity in Project. City shall issue a written notice to proceed. Consultant shall not prepare a written report unless the City directs Consultant to do so.
 - c. Consultant shall exercise reasonable skill, care and diligence in performance of its services and will carry out its responsibilities in accordance with the generally accepted standards of professional practices in effect at time of

performance (hereinafter "Standard of Care"). NO OTHER REPRESENTATION, EXPRESS OR IMPLIED, IS MADE OR INTENDED BY THE PERFORMANCE OF THE SERVICES PROVIDED. If Consultant fails to meet the foregoing standards, Consultant shall perform at its own cost, and without reimbursement from City, the professional services necessary to correct errors and omissions which are caused by Consultant's failure to comply with the above standard.

d. Schedule. On or after the Effective Date, the City shall issue the notice to proceed and Consultant shall proceed in accordance with the timeline contained in Exhibit A. Services shall be started within 10 calendar days of Notice to Proceed and completed within the timeframes set forth in Consultant's Proposal Schedule. 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 Consultant.

2. Addition or Deletions to Services. City may add to Consultant's services or delete therefrom, provided that the total cost of such work does not exceed the total cost allowance as specified herein. Consultant shall undertake such changed activities only upon the written direction of City. All such directives and changes shall be in written form and prepared and approved by the Parties. There shall be no change in the Schedule of Work unless specifically identified and agreed to by Consultant and City at the time such services are added or deleted.
3. Exchange of Data. All information, data, and reports in City's possession and necessary for the carrying out of the work, shall be furnished to Consultant without charge, and the Parties shall cooperate with each other in every way possible in carrying out the Scope of Services.
4. Personnel. Consultant represents that Consultant will secure at Consultant's own expense, all personnel required to perform the services called for under this Agreement by Consultant. Such personnel shall not be employees of or have any contractual relationship with City, except as employees of Consultant. All of the services required hereunder will be performed by Consultant or under Consultant's direct supervision. All Consultant's personnel engaged in the work shall be fully qualified and shall be authorized 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 City, which approval shall not be unreasonably withheld.
5. Term. This Agreement shall commence on the Effective Date and shall terminate upon completion of the Project.
6. Costs not to Exceed. Pursuant to Consultant's Proposal contained in Exhibit A attached hereto, the Parties have established a fixed sum of **Sixty-One Thousand, Seven Hundred Forty and No Cents (\$61,740.00)** for Consultant's services as outlined in this Agreement. Should Exhibit A allow Consultant to charge expenses, the Parties have established a maximum sum of

Zero Dollars (\$0.00) for Consultant's expenses except as included in the above amounts as outlined in this Agreement.

7. Payment.

a. Consultant may issue an invoice on a monthly basis for work performed and expenses since the preceding invoice or, if there was no preceding invoice, since the issuance of a notice to proceed.

b. Conditioned upon acceptable performance. Provided Consultant performs the services in the manner set forth in Paragraph 1 hereof, City agrees to pay Consultant in accordance with the terms outlined herein, which shall constitute complete compensation for all services to be rendered under this Agreement; provided, that where payments are to be made periodically to Consultant for services rendered under this Agreement, City expressly reserves the right to disapprove in whole or in part a request for payment where the services rendered during the period for which payment is claimed are not performed in a timely and satisfactory manner.

c. City shall have twenty (20) days from the date of receipt of the invoice to register City's disapproval of the work billed on that invoice. Following Consultant's receipt of said disapproval, Consultant shall have ten (10) days to cure the issues presented. If cure cannot be obtained within ten (10) days, Consultant shall notify City of the proposed amount of time for cure, and reach an agreement as to an acceptable alternative deadline.

d. Upon receipt of the invoice and progress report, City will, as soon as practical, pay Consultant for the services rendered. City shall pay Consultant within thirty (30) days of receipt of an invoice, unless the work billed on the invoice has been disapproved.

8. Termination of Agreement.

a. Termination for Breach. Failure of Consultant to fulfill Consultant's obligations under this Agreement in a timely and satisfactory manner in accordance with the schedule and description of services for the Project agreed to by both Parties shall constitute a breach of this Agreement, and City shall thereupon have the right to immediately terminate this Agreement. City shall give seven (7) days written notice of termination to Consultant by one of three different means: Facsimile Transmission ("FAX") if Consultant has a FAX number; U.S. Postal Service Mails; or by hand delivering a copy of the same to Consultant; or may give notice by any combination of the above methods. The date of termination shall be the date upon which notice of termination is hand delivered to Consultant or given by FAX, or the third day following mailing of the notice of termination, whichever first occurs. In case of termination for breach of this Agreement, Consultant shall be paid for completed and acceptable services performed up to the date of termination. In the event of termination for breach,

City, at its sole option, may utilize any and all finished or unfinished documents, data, studies, and reports or other materials prepared by Consultant under this Agreement prior to the date of termination. Consultant shall not be relieved of liability to City for damages sustained by City by virtue of any such breach of this Agreement by Consultant.

b. Termination for Convenience. City shall have the right at any time by written notice to Consultant to terminate and cancel this Agreement, without cause, for the convenience of City, and Consultant shall immediately stop work. In such event City shall not be liable to Consultant except for payment for actual work performed prior to such notice in an amount proportionate to the completed contract price and for the actual costs of preparations made by Consultant for the performance of the cancelled portions of the Agreement, including a reasonable allowance of profit applicable to the actual work performed and such preparations. In the event of termination for convenience, City, at its sole option, may purchase, for just and equitable compensation any and all finished or unfinished documents, data, studies, and reports or other materials prepared by Consultant under this Agreement. Any reuse of any satisfactory work completed prior to the termination for convenience shall be at City's own risk and without any liability to Consultant. Anticipatory profits and consequential damages shall not be recoverable by Consultant.

c. Termination for Cause by Consultant. Consultant may terminate this Agreement if the City fails to pay Consultant's undisputed invoices within the time period specified in this Agreement or commits any other material breach of the City's obligations under this Agreement, and such breach continues uncured for a period of thirty (30) days following the City's receipt of Consultant's written notice of such breach.

9. Ownership of Intellectual Property and Work Product.

a. Any software, research, reports, studies, data, photographs, videos, negatives or other documents, drawings or materials prepared by Consultant in the performance of its obligations under the resulting contract (collectively "Work Product") shall remain the property of Consultant. Upon receipt of payment by Consultant, the City shall gain ownership of all tangible or electronic versions of any Work Product prepared under the resulting contract with the intent of being furnished to, and ultimately delivered to the City ("Deliverables"). The City shall not gain ownership of any intellectual property of Consultant that was used to create or is otherwise embodied in the Work Product. Consultant shall grant to the City a royalty free, nonexclusive, perpetual, non-transferable, non-assignable, limited license to use the work solely for internal purposes, such Consultant intellectual property as is necessary for City to make the agreed use of the Deliverables under the resulting contract. To the extent allowed by law, City agrees to defend and indemnify and hold Consultant harmless from any claim, liability or cost (including reasonable attorneys' fees and defense costs) arising

out of any reuse or modification of the Deliverables by the City or any person or entity that acquires or obtains the Deliverables from or through the City.

b. Notwithstanding the City's ownership of the work product, City acknowledges and agrees that: (i) Consultant has the right to re-use any of its pre-existing know-how, ideas, concepts, methods, processes, or similar information, however characterized, whether in tangible or intangible form, and whether used by Consultant in the performance of Services or not, at any time and without limitation, and (ii) Consultant retains ownership of any and all of its intellectual property rights that existed prior to the Effective Date including, but not limited to, all methods, concepts, designs, reports, programs, and templates.

c. Pre-existing works include inventions (whether or not patentable), works of authorship, trade secrets, techniques, know-how, ideas, concepts, algorithms, and other intellectual property which existed prior to commencement of this Agreement. No property rights to any pre-existing works shall enure to the City. To the extent that Consultant incorporates pre-existing work into a derivative work for City, Consultant will retain ownership of such derivative work and provided that it hereby grants City a royalty free, nonexclusive, perpetual, non-transferable, non-assignable, limited license to use the work solely for internal purposes. The work product cannot be used for any outside jurisdiction without written permission from Consultant."

10. Insurance. Consultant shall maintain, on a primary basis and at its sole expense, at all times during the life of this Agreement the following insurance coverages, limits, and with the exception of Professional Liability, Workers' Compensation & Employers Liability, endorsements described herein. The requirements contained herein, as well as the City's review or acceptance of insurance maintained by Consultant is not intended to, and shall not in any manner limit or qualify the liabilities or obligations assumed by Consultant under this Agreement. Coverage to be provided as follows by a carrier with A.M. Best minimum rating of A-VI.

a. Workers' Compensation & Employers Liability. Consultant shall maintain Workers' Compensation in accordance with Missouri State Statutes or provide evidence of monopolistic state coverage. Employers Liability with the following limits: \$500,000 for each accident, \$500,000 for each disease for each employee, and \$500,000 disease policy limit.

b. Commercial General Liability. Consultant shall maintain Commercial General Liability at a limit of \$2,000,000 Each Occurrence, \$3,000,000 Annual Aggregate. Coverage shall not contain any endorsement(s) excluding nor limiting Product/Completed Operations, Contractual Liability or Cross Liability.

c. Business Auto Liability. Consultant shall maintain Business Automobile Liability at a limit of \$2,000,000 Each Occurrence. Coverage shall include liability for Owned (if applicable), Non-Owned & Hired automobiles. In the event

Consultant does not own automobiles, Consultant 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.

d. Professional Liability. If the Scope of Services require the work of a licensed professional, Consultant agrees to maintain Professional (Errors & Omissions) Liability at a limit of \$2,000,000 per claim and \$3,000,000 aggregate. For policies written on a "Claims-Made" basis, Consultant 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, Consultant 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 Consultant of the obligation to provide replacement coverage.

e. Consultant may satisfy the liability limits required for Commercial General Liability or Business Auto Liability under an Umbrella or Excess Liability policy. There is no minimum per occurrence limit of liability under the Umbrella or Excess Liability. Consultant agrees to endorse City as an Additional Insured on the Umbrella or Excess Liability, unless the Certificate of Insurance state the Umbrella or Excess Liability provides coverage on a "Follow-Form" basis.

f. With the exception of Professional Liability, Workers' Compensation & Employers Liability, The City of Columbia, its elected officials and employees are to be Additional Insured with respect to the Project to which these insurance requirements pertain. A certificate of insurance evidencing all coverage required is to be provided at least ten (10) days prior to the Effective Date of the Agreement between the Consultant and City. Consultant is required to maintain coverages as stated and required to notify City of a material change within thirty (30) business days.

g. The Parties hereto understand and agree that City is relying on, and does not waive or intend to waive by any provision of this Agreement, any monetary limitations or any other rights, immunities, and protections provided by the State of Missouri, as from time to time amended, or otherwise available to City, or its elected officials or employees.

h. Failure to maintain the required insurance in force may be cause for termination of this Agreement. In the event Consultant fails to maintain and keep in force the required insurance or to obtain coverage from its subcontractors, City shall have the right to cancel and terminate this Agreement without notice.

i. The insurance required by the provisions of this article is required in the public interest and City does not assume any liability for acts of Consultant

and/or Consultant's employees and/or Consultant's subcontractors in the performance of this Agreement.

11. **Conflicts.** No salaried officer or employee of City and no member of City Council shall have a financial interest, direct or indirect, in this Agreement. A violation of this provision renders this Agreement void. Any federal regulations and applicable provisions in Section 105.450 et seq. RSMo shall not be violated. Consultant covenants that it presently has no interest and shall not acquire any interest, direct or indirect, which would conflict in any manner or degree with the performance of services to be performed under this Agreement. Consultant further covenants that in the performance of this Agreement no person having such interest shall be employed.
12. **Assignment.** Consultant shall not assign any interest in this Agreement, and shall not transfer any interest in the same (whether by assignment or novation), without prior written consent of City thereto. Notice of such assignment or transfer shall be furnished in writing promptly to City. Any such assignment is expressly subject to all rights and remedies of City under this Agreement, including the right to change or delete activities from this Agreement or to terminate the same as provided herein, and no such assignment shall require City to give any notice to any such assignee of any actions which City may take under this Agreement, though City will attempt to so notify any such assignee.
13. **Compliance with Laws.** Consultant agrees to comply with all applicable federal, state and local laws or rules and regulations applicable to the provision of services hereunder.
14. **Employment Of Unauthorized Aliens Prohibited.** Consultant agrees to comply with Missouri State Statute section 285.530 in that Consultant shall not 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 this Agreement, Consultant 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. Consultant 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. Consultant shall require each subcontractor to affirmatively state in its contract with Consultant 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. Consultant shall also require each subcontractor to provide Consultant 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.
15. **General Independent Contractor Clause.** This Agreement does not create an employee/employer relationship between the Parties. It is the Parties' intention that the Consultant will be an independent contractor and not City's employee for

all purposes, including, but not limited to, the application of the Fair Labor Standards Act minimum wage and overtime payments, Federal Insurance Contribution Act, the Social Security Act, the Federal Unemployment Tax Act, the provisions of the Internal Revenue Code, Missouri revenue and taxation laws, Missouri workers' compensation and unemployment insurance laws. Consultant will retain sole and absolute discretion in the judgment of the manner and means of carrying out Consultant's activities and responsibilities hereunder. Consultant agrees that it is a separate and independent enterprise from the public employer, that it has a full opportunity to find other business, that it has made its own investment in its business, and that it will utilize a high level of skill necessary to perform the work. This Agreement shall not be construed as creating any joint employment relationship between Consultant and City, and City will not be liable for any obligation incurred by Consultant, including but not limited to unpaid minimum wages and/or overtime premiums.

16. **Hold Harmless Agreement:** To the fullest extent not prohibited by law, Consultant shall indemnify and hold harmless the City of Columbia, its directors, officers, and employees from and against all claims, damages, losses, and expenses (including but not limited to attorney's fees) arising by reason of any negligent act of Consultant, of any subcontractor (meaning anyone, including but not limited to consultants having a contract with Consultant or a subcontractor for part of the services), of anyone directly or indirectly employed by Consultant or by any subcontractor, or of anyone for whose acts Consultant or its subcontractor may be liable, in connection with providing these services. This provision does not, however, require Consultant to indemnify, hold harmless, or defend the City of Columbia from its own actions, inactions, (willful or otherwise), or its own negligence.
17. **No Waiver of Sovereign Immunity.** 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 constitution or law.
18. **Limitation of Liability.** Notwithstanding any other provision of this Agreement to the contrary, the liability of either Party and to all entities having contractual relations with either Party in connection with this Agreement, for any claim whatsoever related to this Agreement, including any cause of action in contract, tort or strict liability, and including any obligations to indemnify the other Party as set forth in this Agreement, shall not exceed the value of two (2x) times the Task order under which the liability arises.
19. **Waiver of Consequential Damages.** Neither Consultant nor the City nor either Party's suppliers, agents, officers, and directors shall have any liability regardless of the theory of recovery, including breach of contract or negligence, to the other Party or any other person or entity for any indirect, incidental, special, or consequential damages, cost or expense whatsoever, including but not limited to

loss of revenue or profit, whether actual or anticipated, loss of use, failure to realize anticipated savings, loss of or damage to data or other commercial or economic loss. This waiver of consequential damages is made regardless that (i) either Party has been advised of the possibility of such damages and (ii) that such damages may be foreseeable.

20. **Professional Responsibility.** Consultant shall exercise reasonable skill, care, and diligence in accordance with the Standard of Care. If Consultant fails to meet the foregoing standard, Consultant shall perform at its own cost, and without reimbursement from City, the professional services necessary to correct the errors and omissions which are caused by Consultant's failure to comply with above standard, and which are reported to Consultant within one (1) year from the completion of Consultant's services for the Project.
21. **Governing Law and Venue.** The Parties shall attempt in good faith to resolve any dispute arising out of or relating to this Agreement, or any breach hereof or any services performed hereunder, promptly by negotiation between executives who have authority to settle the controversy. Any Party may give the other Party written notice of any dispute not resolved during the normal course of business. Such notice shall include a statement of that Party's position and documentation supporting that party's claim and the name and title of the executive who will be representing that party and any other person who will accompany the executive. The receiving Party shall respond in kind within fifteen (15) days of the date of notice. Within thirty (30) days after delivery of the initial notice, the executives of both Parties shall meet at a mutually acceptable time and place and use good faith efforts to resolve the dispute. If the dispute is not then resolved, either Party may give the other written notice that these executive negotiations are concluded. To the extent allowed by law, negotiations pursuant to this section shall be confidential and shall be treated as compromise and settlement negotiations for purposes of Law and rules of evidence. Time requirements herein may be modified upon mutual written consent of the Parties.

This Agreement shall be governed, 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 Agreement, shall be in 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. The Parties agree to waive any defense of forum non conveniens.

22. **No Third-Party Beneficiary.** No provision of this Agreement is intended to nor shall it in any way inure to the benefit of any customer, property owner or any other third party, so as to constitute any such Person a third-party beneficiary under this Agreement.

23. Notices. Any notice, demand, request, or communication required or authorized by this Agreement shall be delivered either by hand, facsimile, overnight courier or mailed by certified mail, return receipt requested, with postage prepaid, to:

If to City:

City of Columbia
Utilities Department
ATTN: Eric Worts
Engineering Supervisor
P.O. Box 6015
Columbia, MO 65205-6015

If to Consultant:

Leidos Engineering, LLC
ATTN: Ibrahima Kalle, Principal
Transmission Planning Engineer
12901 Science Drive
Orlando, FL 32826

The designation and titles of the person to be notified or the address of such person may be changed at any time by written notice. Any such notice, demand, request, or communication shall be deemed delivered on receipt if delivered by hand or facsimile and on deposit by the sending party if delivered by courier or U.S. mail.

24. Public Records Act. City is subject to the Missouri Sunshine Law. The Parties agree that this Agreement shall be interpreted in accordance with the provisions of the Missouri Sunshine Law as amended and Consultant agrees to maintain the confidentiality of information which is not subject to public disclosure under the Sunshine Law.
25. Amendment. No amendment, addition to, or modification of any provision hereof shall be binding upon the Parties, and neither Party shall be deemed to have waived any provision or any remedy available to it unless such amendment, addition, modification or waiver is in writing and signed by a duly authorized officer or representative of the applicable Party or Parties.
26. Audit. Consultant shall maintain financial records according to generally accepted accounting standards. City has the right, at its sole expense and during normal working hours, to examine the records of Consultant to the extent reasonably necessary to verify the accuracy of any statement, charge or computation made pursuant to this Agreement.
27. Nondiscrimination. During the performance of this Agreement, Consultant shall not discriminate against any employee, applicant for employment or recipient of services because of race, color, religion, sex, sexual orientation, gender identity, age, disability, national origin, or any other legally protected category. Consultant shall comply with all provisions of laws, rules and regulations governing the regulation of Equal Employment Opportunity including Title VI of the Civil Rights Act of 1964 and Chapter 12 of the City of Columbia's Code of Ordinances.
28. Missouri Anti-Discrimination Against Israel Act. To the extent required by Missouri Revised Statute Section 34.600 and not in violation of the state or

federal constitution, Consultant certifies it is not currently engaged in and shall not, for the duration of this Agreement, engage in a boycott of goods or services from the State of Israel; companies doing business in or with Israel or authorized by, licensed by, or organized under the laws of the State of Israel; or persons or entities doing business in the State of Israel. If any provision of this paragraph, or the application of such provision to any person or circumstance, shall be held invalid, the remainder of this Agreement, or the application of such provision to persons or circumstances other than those as to which it is held invalid, shall not be affected thereby. This paragraph shall not apply to contracts with a total potential value of less than one hundred thousand dollars (\$100,000.00) or to contractors with fewer than ten (10) employees.

29. Counterparts and Electronic Signatures. This Agreement may be signed in one or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same document. Faxed signatures, or scanned and electronically transmitted signatures, on this Agreement or any notice delivered pursuant to this Agreement, shall be deemed to have the same legal effect as original signatures on this Agreement.
30. Contract Documents. The Contract Documents include this Agreement and the following attachments and exhibits which are incorporated herein by reference.

Exhibit:

- A Consultant's Proposal for 2025 Engineering Services – Electric Transmission Dynamic Studies, dated August 19, 2025

In the event of a conflict between the terms of any of the Contract Documents and the terms of this Agreement, the terms of this Agreement control.

31. Entire Agreement. This Agreement represents the entire and integrated agreement between the Parties relative to the Project herein. All previous or contemporaneous contracts, representations, promises and conditions relating to Consultant's services on this Project described herein are superseded.

[SIGNATURES ON FOLLOWING PAGE]

IN WITNESS WHEREOF, the Parties hereto have set their hands on the day and year written below.

CITY OF COLUMBIA, MISSOURI

By: _____
De'Carlton Seewood, City Manager *ESK*

Date: _____

ATTEST:

By: _____
Sheela Amin, City Clerk

APPROVED AS TO FORM:

By: _____
Nancy Thompson, City Counselor/ek

CERTIFICATION: I, hereby certify that this Agreement is within the purpose of the appropriation to which it is to be charged, Account Number 17440923-504990 and that there is an unencumbered balance to the credit of such appropriation sufficient to pay therefor.

By: _____
Matthew Lue, Director of Finance

LEIDOS ENGINEERING, LLC

By: *Zachary A. Cheek* _____

Name: *Zachary A. Cheek* _____

Title: *Contract Manager* _____

Date: *8/22/2025* _____

ATTEST:

Lian Alfonso
By: _____
Name: Lian Alfonso



August 19, 2025

Eric Worts, P.E.
Engineering Supervisor
Columbia Water & Light Department (CWLD)
701 East Broadway, 5th Floor
Columbia, MO 65201

Subject: Proposal for 2025 Engineering Services – Electric Transmission Dynamic Studies

Dear Mr. Worts:

Leidos Engineering, LLC (Leidos) is pleased to submit this proposal to the City of Columbia (the City) in response to the request for scope of services and fees prior to contract agreement for Engineering Services – Electric Transmission Dynamic Studies.

Scope of Services

The City is requesting expertise in local and regional electric transmission dynamic system modeling and transient stability analysis. The stability analysis must meet the requirements set forth in the North American Electric Reliability Corporation (NERC) Transmission Planning (TPL) and Critical Infrastructure Protection (CIP) Standards and will be conducted for both a near-term (one to five years) and long-term (six to ten years) planning horizon.

The scope of work includes the following key components:

- › Review the City's compliance methods and compare them against the applicable NERC TPL and CIP standards to identify potential gaps. Assess the existing system and model data for accuracy and completeness and update them as appropriate.
- › Build and update dynamic models, including composite loads, for the CWLD system study to meet TPL-001-5.1 requirements
- › Provide dynamic stability study results, including generator rotor angles, bus voltages, system frequency plots, and a summary spreadsheet
- › Perform dynamic stability assessments to support compliance with NERC TPL-001-5.1
- › Present an analysis of the results in a study report
- › Categorize Bulk Electric System (BES) Cyber Systems according to their impact on the BES, in accordance with Requirement R1 of the CIP-002-5.1a standard

Leidos will schedule a kickoff meeting once the work authorization is executed. The goal of the meeting is to develop a roadmap for the project, discuss the schedule, and set milestones and expectations for each task. This meeting is essential to establish a clear, mutual understanding of the project deliverables and requirements.

Task 1: Kickoff Meeting

Leidos will attend a kick-off meeting via phone or web conference with City staff to discuss the project. The meeting will include the following agenda items:

- › Project overview
- › Identify team member roles and responsibilities, including decision-making authority
- › Summarize the study's main features
- › Identify data requirements and discussion of information exchange plans
- › Review pertinent background information and summaries of previous studies and investigations, if applicable
- › Identify assumptions, criteria, and procedures to be used in performing the study
- › Discuss potential study challenges
- › Establish secure file transfer mechanisms to support the project, if not already in place
- › Schedule a weekly conference call between Leidos and the City's designated primary contact for the duration of the project

Following the meeting, Leidos will prepare and submit to the City a summary of the issues discussed.

Task 2: Compliance and Modeling Support

Leidos will review the system data, the representation of the City's system in the latest available Midcontinent Independent System Operator (MISO) Transmission Expansion Plan (MTEP) models or other cases provided by the City, and the conditions and events analyzed in past planning studies to support NERC compliance. In collaboration with City staff, Leidos will make necessary adjustments and corrections, and complete missing information in the planning models. The review will also include the following tasks:

- › Compare the City's existing compliance methods with the latest NERC and SERC Reliability Corporation (SERC) compliance requirements, identify potential gaps, and work with City staff to address those gaps
- › Collaborate with City staff to document and correct data and information in the planning models (e.g., dynamic, short circuit, and power flow) as necessary
- › Review and revise voltage schedules for generators and/or transformer load tap changer (LTC) controls
- › Review the Critical Asset Identification Methodology to support compliance with CIP-002-3

Task 3: Dynamic Model Development

Leidos will initiate the model-building effort with the goal of developing the following PSS®E models for the City's electric system:

- › Peak Load
- › Light Load

- › Summer Shoulder Load
- › Peak Load Sensitivity Case
- › Off-Peak Load Sensitivity Case

These cases are selected based on Leidos' prior experience and are intended to meet the near-term and long-term planning study requirements outlined in the NERC TPL-001-5.1 standard. The City will provide both near-term and long-term load flow cases. Leidos will make the final selection of study cases in coordination with City staff during the kickoff meeting. For budgeting purposes, a total of seven cases will be developed and included within the scope of work.

The latest MTEP models or other models provided by the City will serve as the starting point for this study. In consultation with City staff, Leidos will modify the models to more accurately represent the local transmission system. These modifications may include adjustments to load and generation data, as well as expanding the model's topology to incorporate lower voltage system details where appropriate.

Task 4: Dynamic Stability Study/Analysis of Results

The objective of this study is to assess the dynamic performance of the City's electric transmission system in accordance with the NERC TPL-001-5.1 standard, with the goal of maintaining and enhancing system reliability. Leidos will conduct a dynamic stability analysis to fulfill the standard's requirements. The analysis will be performed for load levels selected by the City based on historical operating experience and system expertise.

Leidos will incorporate findings from prior studies and existing documentation on system performance, where applicable, to streamline the study process. City staff are expected to participate throughout the study, contributing to the formulation of study assumptions and contingency definitions.

Study Scenarios

The assessment will include the development of individual study cases for the following scenarios:

- › System peak load scenario for an appropriate near-term case
- › System off-peak load scenario for at least one year within the near-term planning horizon
- › Sensitivity cases within the near-term planning horizon to evaluate the impact of changes to base assumptions, including but not limited to:
 - Adjustments to expected transfers
 - Changes to reactive resource capability
 - Modifications to expected in-service dates for new or upgraded transmission facilities
 - Variations in load levels, load forecasts, or dynamic load modeling assumptions
 - Modeling of known outages expected to last six months or longer
- › Long-term planning horizon case(s) to address the impact of proposed significant generation additions or system modifications

The exact set of study cases will be determined through discussions with City staff.

Contingency Analysis

Leidos will perform a contingency analysis that includes:

- › Events categorized under TPL-001-5.1 Category P1 through P7, as applicable
- › Selected extreme events, included for reference and evaluation

Corrective Action Plans

If system deficiencies are identified, Leidos will:

- › Provide a list of those deficiencies
- › Recommend mitigation actions to resolve each issue
- › Document required use of non-consequential load loss or curtailment of Firm Transmission Service, as appropriate

Task 5: Draft Report Development and Review Meeting

Leidos will prepare a comprehensive report to document the findings of the dynamic stability analysis. System performance issues identified during the analysis will be thoroughly explained, with supporting data and results clearly presented in the report.

In addition, Leidos will document the process used to categorize Bulk Electric System (BES) cyber assets in accordance with Requirement R1 of the CIP-002-5.1a standard. The report will include a detailed explanation of the methodology used and a list of identified assets.

It is important to note that the CIP-002-5.1a standard introduces updated methodology and criteria for identifying assets based on their impact on the BES—similar in intent to Critical Asset identification in earlier versions of the standard. However, this identification process cannot be based solely on the results of the stability study. To support this assessment, Leidos will collaborate closely with City staff and may issue a questionnaire to gather the necessary information for proper evaluation of the City's assets under CIP-002-5.1a.

Leidos will share initial findings during a conference call with City staff. Following this, we will submit a draft report for the City's review and feedback.

Task 6: Final Report

Leidos will prepare the final report for the study, incorporating feedback received during the draft report review meeting. The final report will summarize key findings, analyses, and recommendations from the dynamic stability study. Upon completion, Leidos will provide the City with an electronic copy of the final dynamic stability study report.

Assumptions

The scope of services outlined in this proposal is based on the following assumptions:

- › Power flow models for this study will be provided by the City. It is expected that the City's system will be adequately represented in these models.

- › The models provided must be reasonably accurate and require only minimal updates. Power flow models must be provided in PSS®E version 35.6.
- › The City will provide the following support files and data, as applicable:
 - Fault contingency files
 - Monitor files
 - UDM DLL files for any user-defined models related to MISO, SERC, or City generation
 - Usmdl_Src (if available)
 - Load models (if using MISO models as a basis)
 - MMWG files, including .dyr files for any new projects
 - Most recent MISO dynamic files
- › The City is responsible for contacting MISO to obtain the latest modeling information, including the current file structure, model updates, and planning assumptions relevant to dynamic studies.
- › The dynamic stability analysis will cover up to seven study cases.
- › One draft report and one final report will be issued as part of this study.
- › City staff will be available to support the study and are expected to respond promptly to data requests or questions to help maintain the project schedule.
- › No travel is required for the services described in this proposal.
- › Leidos has included 24 hours of labor for revising upgrade scenarios on the corrected models.
- › This proposal does not include any additional sensitivity studies beyond what has been described in the earlier sections. Any additional scope will require a separate agreement.
- › The City will provide applicable transmission planning criteria for CWLD, MISO, and SERC.
- › If the power flow models provided by the City contain deficiencies, Leidos will notify the City, and the City will provide updated and reliable information in a timely manner.
- › Work will commence upon the execution of mutually acceptable terms and conditions.

Schedule

Leidos understands that the City requires the study results to support compliance with the NERC TPL-001-5.1 standard. Leidos will commence the study the week following receipt of all necessary data from the City. The draft study report will be completed within 10 weeks, provided that City staff are available to support the schedule and that any requested data, clarifications, or other information are provided promptly. The final report and the final study documents will be provided within two weeks of the comments received from the City. Please note that delays in obtaining the required input may lead to adjustments in the overall project timeline. All study results are expected to be delivered to City within 12 months of the study release.

Schedule of Fees

Table 1 presents the fully loaded hourly rates for each individual job classification proposed for the work.

Table 1. Billing Class Hourly Rate (US\$) for Typical Project Roles

Bill Class	Hourly Rate (US \$)	Typical Project Roles
Class 1 – 6	\$11 – \$67	Clerical, Administration, Junior Engineers and Technicians
Class 7 – 10	\$78 – \$112	Staff Engineers, Consultants, and Technicians
Class 11 – 14	\$123 – \$157	Senior Engineers, Consultants, Technicians, and Project Managers
Class 15 – 20	\$168 – \$224	Executive Engineers and Consultants, and Senior Project Managers
Class 21 – 31	\$235 – \$347	Executive Engineers and Consultants, and Executive Project Managers

Detailed Budget

Services will be provided on a time and material basis, with labor charges based on the actual hours of service provided, multiplied by Leidos' billing rates as outlined in the Schedule of Fees section above. Expenses will be invoiced based on actual costs incurred. The total fee for services under this Task Authorization will not exceed \$61,740 for the study, based on the Scope of Services outlined in this proposal and the anticipated level of effort. Any fees exceeding this amount will require prior written authorization from the City.

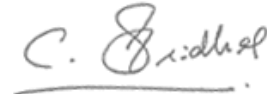
Table 2. Budget Estimate

Task Number	Task	Budget Estimate (\$)
Task 1	Kickoff Meeting	\$2,160
Task 2	Compliance and Modeling Support	\$8,100
Task 3	Dynamic Model Development	\$5,940
Task 4	Dynamic Stability Study/Analysis of Results	\$33,050
Task 5	Draft Report Development and Review Meeting	\$8,850
Task 6	Final Report	\$3,640
Total		\$61,740

Thank you for considering Leidos to assist with this important project. we look forward to discussing our proposal and welcome the opportunity to provide additional support to the City. Should you have any questions or require additional information regarding this proposal, please do not hesitate to contact Ibrahima Kalle, Principal Transmission Planning Engineer, at ibrahima.m.kalle@leidos.com or (302) 803-3786, and Sridhar Chouhan, Director of System Planning and Protection, at sridhar.chouhan@leidos.com or (304) 685-2900.

Sincerely,

LEIDOS ENGINEERING, LLC



Sridhar Chouhan, PhD, P.E.
Director, System Planning and Protection



Alex Kim
Contracts Manager