

Mr. Mitch Krysa Independence Power & Light 21500 E Truman Rd. Independence, MO 64051

Re: Proposal to Provide Engineering Consulting | 161kV NorthPoint Development Feasibility Study

Dear Mr. Krysa,

Burns & McDonnell is pleased to provide the following proposal for professional engineering consulting and preparation of a feasibility report for the installation of a 161/69/13.8kV substation intended to provide electrical power for the proposed NorthPoint Development's project "Eastgate Commerce Center."

There are several differentiating factors that we believe make Burns & McDonnell the right choice:



Focused on your objectives: Our goal is long-term client relationships and make you successful; we strive to be a valued extension of your team providing quality services throughout the life of the projects we deliver for you.



Specialized Experience: By choosing Burns & McDonnell as your technical consultant, we will assign a team of highly experienced engineers to support your project. Our team has significant experience with substation and transmission line design at various voltage levels and configurations.



Local Firm with Deep Roots in Community: Just like you, we call Kansas City home and have since 1898. We have over 3,000 Burns & McDonnell employee-owners at our world headquarters in Kansas City to give IPL a consistent and close-by partner bringing decades of lessons learned, ideas, and tools for your success.

Terms and Conditions: Burns & McDonnell proposes to complete these services on a time and material basis in accordance with rate sheet BMR22-9 and under the proposed agreement for Professional Services dated October 31st, 2022. The proposed not-to-exceed fee to complete these services is \$120,101. Proposal will be billed on a time and material basis and is an estimate to complete the work however is not a Guaranteed Maximum. If additional authorization is necessary, Burns & McDonnell will request the additional authorization from the City prior to commencing work.

We appreciate this opportunity to be of service to Independence Power and Light. If you have any questions, please do not hesitate to contact Adam Mummert at (816) 349-6867 and Chase Schaben at (816) 509-0177.

Sincerely,

Adam Mummert, PE Account Manager 1898 & Company

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R. Jason Macleod
Project Execution Director
Transmission & Distribution Services

CITY OF INDEPENDENCE MISSOURI: 161/69/13.8KV NORTHPOINT DEVELOPMENT FEASIBILITY STUDY OCTOBER 31ST, 2022

### **ESTIMATED COMPENSATION**

The estimated compensation breakdown that is required to complete the scope as described is as follows:

	Compensation
<u>First Authorization:</u> Substation & Transmission Line Layout & Routing	\$98,826
Second Authorization: Environmental	\$11,511
Desktop Review	
Optional Services: Phase I ESA	\$9,764
Total	\$120,101

The first authorization includes the scope outlined in the Engineering and Project Estimates sections. The second authorization includes the scope outlined in the Environmental section. A notice to proceed is required from Independence Power and Light to complete the scope associated with the second authorization following completion of scope associated with the first authorization.

### PROJECT APPROACH

Burns & McDonnell has developed the following approach for the execution of the project:

### **Project Meetings and Administration**

#### Project Status Meetings and Site Visit

A project kickoff meeting will be scheduled with the City shortly after the notice to proceed is received to discuss project expectations and assumptions. Burns & McDonnell intends to maintain regular communication with the City regarding project updates via phone calls, meetings, and emails to meet the expectations of the project. Burns & McDonnell has assumed 24 total hours for substation, environmental, and transmission line resources to provide project updates through meetings, phone calls, and emails. A site visit is included in this proposal with the intention to provide a detailed view of the proposed substation area and possible transmission line routes. Burns & McDonnell has assumed one (1) site visit for four (4) individuals assuming eight (8) total hours for both substation and transmission line.

#### **Engineering**

#### Feasibility Report

Burns & McDonnell will prepare a feasibility report to detail out the following information:

- Key Design Inputs
  - o Industry Standards
  - City Standards

- Documented City Preferences
- o Preferred Vendors
- o Specified Equipment in the design



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- Constraints
  - Substation
  - Transmission Line
  - o Environmental & Permitting
  - The defined parcel(s)

- Structure Configurations
- Substation land usage compared with defined parcel

It is assumed only one (1) route per line and one (1) site layout will be provided as part of this effort.

#### Transmission Line

Burns & McDonnell will utilize PLS-CADD to provide a preliminary layout for the new single circuit 69kV tap and double circuit 161kV cut-in to the proposed preliminary substation. The PLS-CADD model will utilize publicly available topographic data (unless existing survey is provided by the client upon notice to proceed). The preliminary plan and profile will assume the following structure geometries will be utilized in design:

- One (1) 69kV single circuit tangent horizontal line post
- One (1) 69kV single circuit vertical double dead-end
- One (1) 161kV double circuit monopole with davit arms & I-string suspension insulators
- One (1) 161kV double circuit monopole dead-end structure with davit arms

Burns & McDonnell assumes the 69kV structures and the 161kV structures will be direct embed weathered steel poles. As a part of the preliminary layout, no consideration is being given to foundation or guy/anchor systems. Burns & McDonnell assumes the structures on the existing 69kV and 161kV lines can be tied into and have adequate capacity. The City provided Burns & McDonnell with a preliminary development map (see Appendix A) and possible substation location markup. Only one (1) route per line will be modeled as a part of this effort.

#### Substation

Burns & McDonnell will utilize Autodesk CAD software to provide a preliminary design layout for a 161/69/13.8kV substation to be used for the substation scoping phase of the project. As a deliverable, Burns & McDonnell will estimate the land usage for the substation compared with the land area available as shown in Appendix A. Burns & McDonnell will assume a 750kV BIL rating for the 161kV equipment and 350kV BIL for the 69kV equipment at the substation. Appendix B of this proposal outlines the layout and equipment to be incorporated into a preliminary design layout. The preliminary design layout will include the following major substation equipment above grade items and associated structures:

- 161kV ring bus orientation with the following equipment:
  - o Three (3) 161kV SF6 insulated dead-tank circuit breakers
  - O Seven (7) 161kV disconnect switches
  - o Two (2) 161kV single circuit dead-end structures
- One (1) 161/69kV transformer
- Four (4) bays of 69kV in a breaker-and-a-half orientation
  - o Thirteen (13) 69kV SF6 insulated dead-tank circuit breakers
  - o Twenty-five (25) 69kV disconnect switches
  - One (1) 69kV Capacitor Bank



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- Four (4) 69/13.8kV transformers
- One (1) 13.8kV distribution layout. See the Required Information section for additional information.
- One (1) Control Center
- Preliminary station fence and drive entrance
- High level preliminary site grading design to include approximate substation cut/fill and disturbance limits
- ▶ High level estimates for the engineering, procurement, and construction of the Phase 1 substation buildout and the full substation buildout as delineated in Appendix B
- Land estimated usage compared with plot of land specified in Appendix A

The City provided Burns & McDonnell a preliminary development map and possible substation location markup, which can be viewed in Appendix A.

#### **Environmental**

#### Desktop Environmental Constraints Review

Burns & McDonnell will complete a Desktop Environmental Constraints Review of the environmental conditions within the Project survey area depicted on the figure provided in Appendix C. The Project survey area is estimated to be approximately 325 acres. This review will include publicly available data to identify significant environmental and cultural resources, utility, and transportation rights-of-way (ROWs), and public lands. Burns & McDonnell will review current and historical aerial photography, GIS data including soil data and U.S. Geological Survey (USGS) mapping. Additional reviews will be made of applicable agency databases, including the Missouri State Historic Preservation Office, U.S. Fish and Wildlife Service, U.S. EPA, FEMA, and municipal agencies.

Burns & McDonnell will develop a Memorandum of Findings and Permitting Matrix based on the results of the Desktop Environmental Constraints Review. The Memorandum of Finding will briefly summarize the result of the desktop review and will include figures depicting digitally available resource data. The Permitting Matrix will identify the required permits, regulating agencies, points of contact, authorization timelines, and progress tracking.

#### Optional Services: Phase I ESA

In order to meet the objectives of this project, Burns & McDonnell (hereinafter referred to as CONSULTANT) will conduct a Phase I ESA consistent with ASTM Standard E1527-13 and E1527-21 for performing an environmental site assessment for commercial real estate and with the All Appropriate Inquiries Final Rule (40 CFR 312). It is understood that Phase I ESAs are conducted to permit the user to satisfy one of the requirements to qualify for the innocent landowner, contiguous property owner, or bona fide prospective purchase limitations on Comprehensive Environmental Response Compensation and Liability Act (CERCLA) liability and is not intended to include a more comprehensive evaluation of business environment risk associated with a parcel of commercial real estate. A detailed scope of work is available upon request.



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### **Project Estimates**

Burns & McDonnell will develop two (2) cost estimates as part of the proposed evaluation. The first estimate will include the approximate land required and construction costs for the phase one substation and transmission line equipment, see Appendix A for phase one equipment. The second estimate will include the approximate land required and construction costs for a fully built out substation containing transmission lines and substation equipment outlined in Appendix A. The transmission line estimate will be based on the conceptual structure material, framing, foundation, and hardware dictated by the City. The substation estimate will be based on the equipment and design outlined in the Substation section of this document.

Estimates and projections prepared by Burns & McDonnell relating to construction costs and schedules, operation and maintenance costs, equipment characteristics and performance, land area requirements, and operating results related to construction or installation to be undertaken by the City or its separate contractors are based on Burns & McDonnell's experience, qualifications, and judgment as a design professional. Since Burns & McDonnell has no control over weather, cost and availability of labor, material and equipment, labor productivity, unavoidable delays, competitive bidding or market conditions, and other factors affecting such estimates or projections, Burns & McDonnell does not guarantee that actual rates, costs, performance, schedules, and other results will not vary from estimates and projections prepared by Burns & McDonnell. Burns & McDonnell does not guarantee the exact land area required for the project due to unknown subsurface conditions. The provided cost estimates are assumed to be to an accuracy level of Association for the Advancement of Cost Engineering (AACE) Class 4.

### Quality

Delivering a quality product safely is of the utmost importance to Burns & McDonnell. We have a comprehensive quality program that is as much a part of our culture as our emphasis on safety. The project manager will be responsible for overseeing and implementing our supplemental quality review processes.

#### **Deliverables Summary**

161/69/13.8kV Substation and 69/161kV Transmission Line Feasibility Report Burns & McDonnell will provide a report detailing the following:

- Key Design Inputs including design assumptions
- One (1) Preliminary Substation Layout
- Land Usage compared with Defined Parcel (See Appendix A)
- One (1) One-Line drawing detailing the planned 161kV, 69kV and 13.8kV electrical equipment for the proposed substation site.
- One (1) Preliminary Transmission Line Plan & Profile
- Four (4) Conceptual Framing Drawings
- High level estimates for the engineering, procurement, and construction of the Phase 1 substation buildout and the full substation buildout as delineated in Appendix B
- Memorandum of Findings



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**Permitting Matrix** 

Optional: Phase I ESA Report

### REQUIRED INFORMATION

Burns & McDonnell has identified key inputs to the engineering design process which must be supplied in a timely manner (as identified in the schedule) to meet the deliverable dates provided in this proposal. The Burns & McDonnell team has made an effort to identify such external inputs but acknowledges that additional items may surface during execution of the project. All additional information requests, including impact on fee and schedule, will be coordinated directly with City.

REQUIRED INFORMATION	
Parcel numbers defining the available "sub site" property from Appendix A	
Distribution Orientation and Preference	
Preferred Equipment Vendor List	
City Substation Design Standards, Specifications & Available Example Sites	
City Transmission Design Standards	
Existing 161kV Line Plan & Profile	
See Environmental ESA Phase I Assumptions & Clarifications	
Existing PLS-CADD Model (if available)	

### PROJECT ORGANIZATION

Burns & McDonnell proposes the following organizational structure of key personnel and resources for the execution of the project. Resumes are available upon request.

- Adam Mummert, PE Account Manager
- Chase Schaben, PE, MBA Substation Lead Engineer (Engineer of Record), Project Manager
- Lauren Gehrke Substation Installation Designer
- Trevor Morrison Substation Civil Engineer
- Ron Alt Substation Installation Quality Control
- Michael Kruse Transmission Lead Engineer, Quality Control
- Matthew Lemke Transmission Lead Designer
- Jose Olvera Cortes Transmission Line Engineer
- Emily Powell, PE Transmission Line Engineer of Record
- Dan Schertz, CPESC Environmental and Permitting Coordinator
- Sarah Shea-Cahir Phase I ESA Lead



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## **SCHEDULE**

Below is a list of deliverables for the project and the estimated completion dates.

DELIVERABLE	DATE
Notice to Proceed (First Authorization)	
Required Information from City (see Required Information section above for details)	12/15/22
Initial Feasibility Report Issued for Review (Engineering and Project Estimates)	
Client Comments on Report	3/31/23
Feasibility Report – Final Issue	4/21/23
Environmental Work Notice to Proceed	3/31/23
Environmental Desktop Review Submittal	4/21/23

### LIMITS OF LIABILITY

The Consultant's maximum amount of liability under this Task Authorization, whether or not covered by the Consultant's insurance and whether based on contract, tort or any other legal theory, shall be limited to, and shall not exceed, the value of the Task Authorization.



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### **ASSUMPTIONS & CLARIFICATIONS**

Burns & McDonnell is committed to a flexible approach that meets the needs of the project. A thorough review of the project scope will be an important part of the kickoff meeting to confirm the assumed scope of work meets the needs of the project and City's expectations.

If additional tasks are identified, these services can be incorporated with a change request. However, to complete the scope as proposed the following assumptions and clarifications apply.

- 1. Burns & McDonnell shall rely upon the information provided by City in the preparation of this proposal and for project execution. Information provided by City is assumed to be complete, accurate, and assumed to meet the system performance criteria for the project without independent verification.
- 2. The Substation section of this document outlines the equipment to be shown on a preliminary plan view with the intention to show typical substation area requirements. The substation portion of this proposal does not include the following design efforts, this list is not exhaustive:
  - Development of specifications
  - Stormwater Design and Calculations
  - Below grade material/equipment
  - **Erosion Control**
  - Landscaping
  - Community Approval packages
  - Distribution circuits exiting the proposed substation site location

- Geotechnical Evaluation and Design
- Structure Design
- Oil Containment Design
- Substation relay and communication scope
- Field Survey or Permitting
- 3. The transmission line portion of this project will provide conceptual information on the plan & profiles with the intention to show preliminary spacing and positioning of structures. The transmission line portion of this proposal does not include the following design efforts, this list is not exhaustive:
  - Electrical Studies
  - Field Survey or Permitting
  - Geotechnical evaluation
  - Community Approval packages
  - Hardware development

publicly available information

Aerial obstacles outside of the

Foundation Design

#### Significant assumptions for the Phase I ESA task:

- 1. The Property is approximately 325 acres in size and the Property boundary is identified on the attached boundary map.
- 2. There are no structures on the Property.
- 3. The Phase I site visit and local records searches can be completed within a single day.
- 4. CLIENT will return the attached User Questions and Information Request upon notice-to-proceed.
- 5. CLIENT will provide landowner and occupant contact information upon notice-to-proceed such that the CONSULTANT can conduct the appropriate interviews.



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- 6. CLIENT will provide written and legal authorization for CONSULTANT to perform services on the Property, including right of access to the Property. No additional costs will be incurred by CONSULTANT in order to comply with any requirements of the right of access agreement. Note that an in-person Site visit by CONSULTANT's personnel is required in order to fully meet the requirements of ASTM E1527, and AAI. If, for any reason, such a Site visit cannot be conducted, then the Phase I ESA report will be conditioned accordingly, including noting the exception as a deviation from the ASTM E1527 standard, and full liability protection may not be obtained by CLIENT.
- 7. CLIENT will obtain the review of title and land judicial records for environmental liens and activity and use limitations (AULs). Note that full liability protection cannot be obtained under the ASTM 1527 Standard and All Appropriate Inquiries Regulation (40 CFR 312) without a review of title and land judicial records for environmental liens or AULs. If the results are provided to CONSULTANT, they will be included in the Phase I ESA report. If the CLIENT would prefer that CONSULTANT obtain this information for inclusion in the report, an additional fee will be applied. An estimated cost can be provided upon request to your proposal manager.
- 8. CLIENT will provide a copy of the Title Policy for the real estate transaction, if available.
- 9. CLIENT will provide the chain-of-title for the Property (from 1940 to present), if available, to allow for review and inclusion in the Phase I report.
- 10. The final report will be provided to CLIENT in electronic format only (as .pdf).
- 11. The Phase I ESA will not include any inquiry with respect to controlled substances, environmental compliance, radon, methane, asbestos, lead paint, mold, wetlands, emerging contaminants, or vapor intrusion.
- 12. No party other than CLIENT is permitted by CONSULTANT to rely on the Phase I ESA report without prior authorization by CONSULTANT.
- 13. CLIENT shall place at CONSULTANT's disposal all available information pertinent to the Scope of Services on this Project, including previous reports and any other data relative thereto. Information provided by CLIENT or others regarding current or previous site conditions, materials, contamination, or other relevant data will be accepted as accurate without independent verification.



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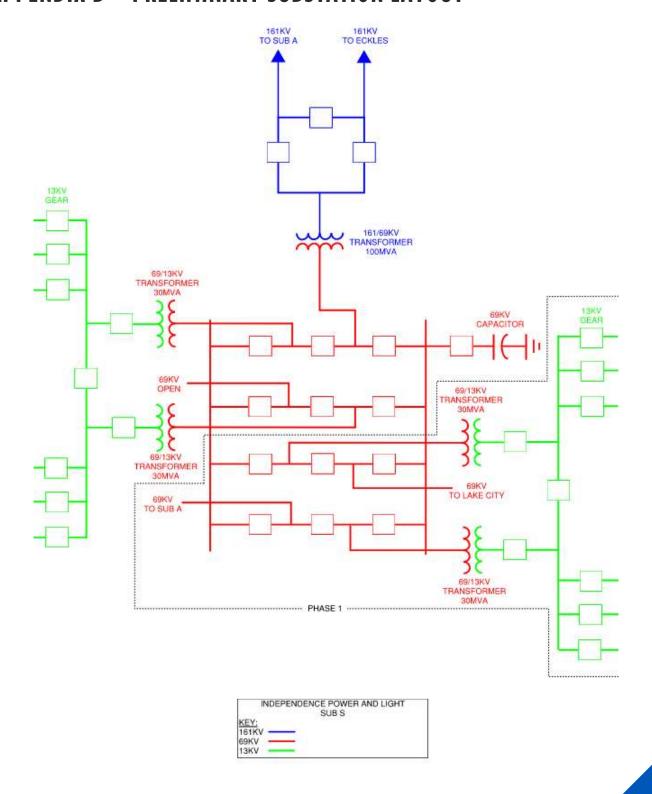
## APPENDIX A - PRELIMINARY DEVELOPMENT MAP





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## APPENDIX B - PRELIMINARY SUBSTATION LAYOUT





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# APPENDIX C - PHASE I AND ENVIRONMENTAL CONSTRAINTS REVIEW **SURVEY AREA**

