Public Policy Transmission Planning Process

Attachment B

Information for a Proposed Solution to a Public Policy Transmission Need

Issued: 04/02/2024

**Issued: April 2, 2024**

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Information for a Proposed Solution to a Public Policy Transmission Need

(Completed proposal should be sent to [PublicPolicyPlanningMailbox@nyiso.com](mailto:PublicPolicyPlanningMailbox@nyiso.com))

Name of Developer:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

(NOTE: *Developers that are jointly proposing a solution must each be specifically named above and qualified under OATT Section 31.4.4.3.6 or seeking qualification in accordance with OATT Section 31.4.4.3.7*)

Mailing Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

City: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_State:\_\_\_\_\_\_\_\_\_\_\_\_\_Zip:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Contact Person: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Telephone: (\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Fax: (\_\_\_\_\_\_\_\_\_) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Email Address: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name of Project: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Public Policy Transmission Need Being Addressed:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Please indicate what type of solution you are proposing to address the above-identified Public Policy Transmission Need:

□ Public Policy Transmission Project

□ Other Public Policy Project

*Only complete the areas below specific to the type of solution (i.e., Public Policy Transmission Project or Other Public Policy Project) that is proposed to address the Public Policy Transmission Need.*

**Information for an Other Public Policy Project**

1. For an Other Public Policy Project, please provide a description of the project, including type, size, and geographic and electrical location, as well as planning and engineering specifications and drawings as appropriate.
2. For an Other Public Policy Project, please provide the lead time necessary to complete the project, including, if available, the construction windows in which the Developer can perform construction and what, if any, outages may be required during these periods.
3. For an Other Public Policy Project, please provide evidence of a commercially viable technology.
4. For an Other Public Policy Project, please provide a major milestone schedule.
5. For an Other Public Policy Project, please provide the schedule for obtaining any required permits and other certifications, if available.

**Information for a Public Policy Transmission Project or an Other Public Policy Project**

1. Please provide status of NYISO interconnection studies and interconnection agreement, if applicable.
2. For a Public Policy Transmission Project or an Other Public Policy Project, please provide a demonstration of Site Control, or a schedule for obtaining such control. Provide plan to obtain temporary easements or leases for laydown areas, and construction equipment (e.g., trenchless equipment)
3. For a Public Policy Transmission Project or an Other Public Policy Project, please provide status of equipment availability and procurement for each major project components, as applicable.
4. For a Public Policy Transmission Project or an Other Public Policy Project, please provide the status of any contracts (other than an interconnection agreement) that are under negotiation or in place.
5. For a Public Policy Transmission Project or an Other Public Policy Project, please provide evidence of financing or ability to finance the project.
6. For a Public Policy Transmission Project, please provide any updates to the qualifications that the Developer relied on demonstrating its financial resources, technical expertise, and experience needed to finance, develop, construct, operate, and maintain a regulated transmission project. Please also provide any information that demonstrates the Developer’s ability to finance, develop, construct, operate, and maintain the type, size, and complexity of the proposed solution set forth in this form or Attachment C for the above-identified Public Policy Transmission Need.
7. For a Public Policy Transmission Project or an Other Public Policy Project, please provide any other information required by NYISO procedures or requested by the NYISO.

In responding to Nos. 6, 7, 8, 10, and 11 above, the following excerpts from the NYISO’s tariff further describe the type information that can be described to indicate the status of contracts, status of required permits, and evidence of financing and the obligations of a Developer to update the status, if applicable.

A Developer shall submit the following information to indicate the status of any contracts: (i) copies of all final contracts the ISO determines are relevant to its consideration, or (ii) where one or more contracts are pending, a timeline on the status of discussions and negotiations with the relevant documents and when the negotiations are expected to be completed. The final contracts shall be submitted to the ISO when available. The ISO shall treat on a confidential basis in accordance with the requirements of Section 31.4.15 and its Code of Conduct in Attachment F of the ISO OATT any contract that is submitted to the ISO and is designated by the Developer as “Confidential Information.”

A Developer shall submit the following information to indicate the status of any required permits: (i) copies of all final permits received that the ISO determines are relevant to its consideration, or (ii) where one or more permits are pending, the completed permit application(s) with information on what additional actions must be taken to meet the permit requirements and a timeline providing the expected timing for finalization and receipt of the final permit(s). The final permits shall be submitted to the ISO when available.

A Developer shall submit the following information, as appropriate, to indicate evidence of financing by it or any Affiliate upon which it is relying for financing: (i) copies of all loan commitment letter(s) and signed financing contract(s), or (ii) where such financing is pending, the status of the application for any relevant financing, including a timeline providing the status of discussions and negotiations of relevant documents and when the negotiations are expected to be completed. The final contracts shall be submitted to the ISO when available.

Upon the completion of any interconnection study or transmission expansion study of a proposed Public Policy Transmission Project or Other Public Policy Project that is performed under Sections 3.7 or 4.5 of the ISO OATT or Attachments P or X of the ISO OATT, the Developer of the proposed project shall notify the ISO that the study has been completed and, at the ISO’s request, shall submit to the ISO any study report and related materials prepared in connection with the study.

**Information for a Public Policy Transmission Project**

1. For a Public Policy Transmission Project, please include the estimated project cost details, as described below.

*Provide estimates using the basic format and content shown below in the example estimate and add items as necessary to reflect proposed scope of the solution. The Developer is encouraged to provide backup details and attach its own project estimating forms or tools to offer reference and background as to the Developer’s methodology and logic for cost estimating. At a minimum, the data below should be filled out completely and as accurately as possible with differentiation between the intended accuracy estimate and the contingency range estimates, which the Developer is using for its particular project depending on the type of construction and the unknowns for the type(s) of construction being proposed. All cost categories should be rounded to the nearest $1,000. If a contingency % adder is included in the estimate, a detailed description of the factors that went into the contingency percentage(s) must be provided. Contingency factor is to be applied on the total sum; not on individual line items. Developers should consider performing the estimate to industry standards, such as a Class 4 estimate or better as defined in the Association for the Advancement of Cost Engineering International Recommended Practice.*

Provide Attachments B.14.1 through B.14.5 for detailed project cost estimates and include the following:

* Project cost details for each of the following categories (as applicable) and all assumptions in developing the estimate:
  + Proposed project (separately identifying costs for new transmission facilities and Public Policy Transmission Upgrades);
  + Potential Interconnection Facilities (e.g., Network Upgrade Facilities if undergoing study under Attachment P or Attachment Facilities, System Upgrade Facilities, System Deliverability Upgrades, as applicable, if the transmission project qualifies and is being studied under another NYISO interconnection process) or NYISO-identified Interconnection Facilities, if known from a NYISO-conducted interconnection study.
* Each major piece of equipment with unique ratings is to be listed with a description of its nameplate ratings, each unique foundation is to be listed separately with the quantity of cubic yards provided. Each unique structure is to be listed separately.
* Right of way (ROW) and site acquisition costs included in the estimate, such as new ROWs or site purchases or easements, supplemental easement costs, and whether or not existing available easement or ROW already exists.
* Cost containment mechanism that a Developer voluntarily includes as part of a proposed Public Policy Transmission Project. The Cost Cap must cover all the Included Capital Costs, as defined in OATT Section 31.4.5.1.8.1. The only allowed exceptions are the Excluded Capital Costs, as defined in Section 31.4.5.1.8.2 and Section 31.4.8.2.1 of OATT. Accordingly, a Developer must submit following information for Included Capital Costs and for Excluded Capital Costs as provided in the tariff.

**Estimated Project Cost Detail:**

Included Capital Costs: Clearly identify project facilities and/or components of Included Capital Costs, including costs to construct/modify a control center, consistent with the definitions under the OATT.

Total Cost Estimate Accuracy: ([+/- X% Engineering & ROW acquisition], [+/- XX% Construction])

(Include this statement if applicable) This project is [ ]% compensable by [source of other ownership/funding].

Excluded Capital Costs: Clearly identify project facilities and/or components of Excluded Capital Costs consistent with the definitions under the OATT.

Total Cost Estimate Accuracy: ([+/- X% Engineering & ROW acquisition], [+/- XX% Construction])

(Include this statement if applicable) This project is [ ]% compensable by [source of other ownership/funding].

**Project Life and Operation and Maintenance Costs:**

The estimated life of the project’s installed facilities is [ ] years.

The project’s estimated annual maintenance/operating costs for the proposed solution over the life of the facilities is $[ ]/year. Provide detail to substantiate costs.

**Cost Cap (including escalation and/or contingency) for Included Capital Costs voluntarily submitted by Developer**:

Hard Cost Cap: $xx

Or Soft Cost Cap: $xx

Risk shared by Developer %

Risk shared by ratepayers %

**Transmission Line Proposed Project Scope Document**

**Attachment B.14.1**

**Cost Estimate – New Transmission Facilities**

***(List only new transmission facilities of the Project***

***but not preliminary identified interconnection facilities)***

**Transmission Line Proposed Project Scope Document**

**Attachment B.14.2**

**Cost Estimate –Public Policy Transmission Upgrades**

***(List Public Policy Transmission Upgrades of the Project)***

**Transmission Line Proposed Project Scope Document**

**Attachment B.14.3**

**Cost Estimate – Preliminary Identified Interconnection Facilities**

***(List preliminary identified interconnection facilities)***

**Transmission Line Proposed Project Scope Document**

**Attachment B.14.4**

**Cost Estimate Assumptions and Clarifications**

***(Review the following assumptions & clarifications.***

***Delete those that do not apply and add others as required)***

1. This estimate contains [\_\_\_%] contingency amounts. [Developer] does not require contractor bonds or liquidated damages, so the costs for bonds and liquidated damages have not been included.
2. All costs are estimated in (year) dollars, and then escalated at a rate of x.x% per year to the year of expenditure. Engineering costs are assumed to be incurred in (year). All construction and material costs are escalated to a rate of x.x% and assumed to be incurred in (year). The percentages will be provided in the requests for solutions.
3. A cost for miscellaneous equipment and materials, which is assumed to be [x%] of the total cost of the equipment and materials, is included. Miscellaneous construction costs, which are assumed to be [x%] of the total construction labor cost (excluding engineering and construction inspection), are also included. These costs are listed as sundries in the estimates.
4. New York State sales and use taxes have been added and are applied to material and the applicable labor categories.
5. All transmission line and substation construction will be performed by “contract labor.”
6. All materials removed for this project are assumed to be scrapped. No salvage value is assumed for the existing structures, conductors and hardware during removal/modification of the existing lines.
7. The quantities of materials and labor shown are those estimated to be actually required (no extras) for the design and construction of the line and substation(s) except for the purchase of the line conductor and shield wire. The conductor and shield wire contains [  ] percent extra (*3-5% typical*).
8. The estimate is based on the existing transmission line being [energized / de-energized], distribution circuits being [energized / de-energized], and substation(s) being [energized/de-energized] during the construction period.
9. New transmission line structures will be located as close as possible to existing structures along the line route.
10. The estimate is based on the following restrictions on placement of transmission line structures in wetlands. The following mitigation costs are included for the wetland areas: (present details if applicable and available)
11. It is assumed that [ ]% of the existing right-of-way will require [light / medium / heavy] clearing for line rebuild.
12. OPGW termination equipment [is / is not] included in any estimate.
13. Approximately [ ] ground rods will be installed at each transmission line structure to achieve a target ground resistance of less than 40 ohms.
14. The need for protective matting during construction is based on input from [Contractor].
15. This estimate includes the assumption that [Location(s)] will be used for pole and material delivery and laydown.
16. Statement of compliance with, and identification of, all reliability standards, interconnection requirements, and design standards applicable to the project.

**Transmission Line Proposed Project Scope Document**

**Attachment B.14.5**

***(Provide Developer’s Estimated Cost Breakdown Sheet)***

| **[Title of Project] – Project Cost Estimate Summary** | | |
| --- | --- | --- |
| **Estimate Revision:** | **#** |  |
| ***Direct Costs*** | | ***Total Each Segment*** |
| Direct Labor, Material & Equipment Costs | [Transmission Line Name] - OH-Install | **$ -** |
| Direct Labor, Material & Equipment Costs | [Transmission Line Name] - UG - Install | **$ -** |
| Direct Labor, Material & Equipment Costs | [Transmission Line Name] - Removal | **$ -** |
| Direct Labor, Material & Equipment Costs | [Substation Name] - Install | **$ -** |
| Direct Labor, Material & Equipment Costs | [Substation Name] - Removal | **$ -** |
| **SUBTOTAL:** | | **$ -** |
| **CONTRACTOR MARK-UP (OH&P)** | | **$ -** |
| **CONTINGENCY ON ENTIRE PROJECT** | | **$ -** |
| **TOTAL DIRECT:** | | **$ -** |
| ***Indirect Costs*** | | ***Total Each Segment*** |
| Indirect Costs | [Transmission Line Name] - OH-Install | **$ -** |
| Indirect Costs | [Transmission Line Name] - UG - Install | **$ -** |
| Indirect Costs | [Transmission Line Name] - Removal | **$ -** |
| Indirect Costs | [Substation Name] - Install | **$ -** |
| Indirect Costs | [Substation Name] - Removal | **$ -** |
| **TOTAL INDIRECT:** | | **$ -** |
| **TOTAL ESTIMATED COST:** | | **$ -** |

| **[Title of Project]** | | | |  | **[Transmission Line Name] - OH-Install** | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate Revision:** | **#** | **Total:** | **$ -** |  |  |  |  |  |  |  |
|  | ***[Title of Project]*** | | |  |  |  |  |  |  |  |
|  |  | *Supply* | *Installation* | *Total* |  |  |  |  |  |  |
|  | **[Transmission Line Name] - OH-Install** |  |  |  |  |  |  |  |  |  |
|  | 1. CLEARING AND ACCESS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 2. FOUNDATIONS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 3. STRUCTURES | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 4. CONDUCTOR, SHIELDWIRE, OPGW | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 5. INSULATORS, FITTINGS, HARDWARE | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 6. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTRACTOR MARK-UP (OH&P)** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **SUBTOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTINGENCY ON ENTIRE PROJECT** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **TOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
| **Description of Work:** | | | | | | | | | |  |
| **Item** | **Item Description** | **Estimated Quantity** | **Unit of Measure** | **Material Supply Rate** | **Material Supply Sum** | **Labor & Equipment Supply Rate** | **Labor & Equipment Sum** | **Total Unit Rate** | **TOTAL** | **Comments:** |
| **[Transmission Line Name] - OH-Install** |  |  |  |  |  |  |  |  |  |  |
| **1. CLEARING AND ACCESS** |  |  |  |  |  |  |  |  |  |  |
| 1.1 | Clearing the ROW - Heavy (Mowing and Clearing) |  | Acre | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.2 | Clearing the ROW - Light (Mowing) |  | Acre |  | $ - |  | $ - | $ - | **$ -** |  |
| 1.3 | Permanent Access Road |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.4 | Silt Fence |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.5 | Matting - Access and ROW |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.6 | Matting - To Work Area |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.7 | Snow Removal |  | Mile | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.8 | ROW Restoration |  | Mile | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.9 | Work Pads |  | SF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.10 | Restoration for Work Pad Areas |  | SF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.11 | Temporary Access Bridge |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.12 | Air Bridge |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.13 | Stabilized Construction Entrance |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.14 | Maintenance and Protection of Traffic on Public Roads |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.15 | Culverts / Misc. Access |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.16 | Gates |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.17 | Concrete Washout Station |  | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL - CLEARING & ACCESS** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **2. FOUNDATIONS** |  |  |  |  |  |  |  |  |  |  |
| 2.1 | [Add Description of Each Foundation Type] |  | Structure |  | $ - |  | $ - | $ - | **$ -** |  |
| 2.2 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |  |
| 2.3 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.4 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.5 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.6 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.7 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.8 |  |  | Structure |  | $ - |  | $ - | $ - | **$ -** |
| 2.10 | Rock Excavation Adder |  | CY | $ - | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL - FOUNDATIONS** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **3. STRUCTURES** |  |  |  |  |  |  |  |  |  |  |
| 3.1 | [Add Description of Each Structure Type] |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.3 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.4 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.5 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.6 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.7 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.8 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.9 |  |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.10 | Install Grounding and Grounding Accessories |  | Structure |  | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - STRUCTURES** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **4. CONDUCTOR, SHIELDWIRE, OPGW** |  |  |  |  |  |  |  |  |  |  |
| 4.1 | [Add Description of Each Conductor Type] |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.2 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.3 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.4 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.5 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.6 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.7 | Rider Poles (# of Locations) |  | Set |  | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL: CONDUCTOR, SHIELDWIRE, OPGW:** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **5. INSULATOR, FITTINGS, HARDWARE** |  |  |  |  |  |  |  |  |  |  |
| 5.1 | [Add Description of Each Type] |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.2 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.3 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.4 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.5 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.6 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.7 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| 5.8 |  |  | Assembly |  | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL - INSULATORS, FITTINGS, HARDWARE** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **[Transmission Line Name] - OH-Install** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Direct Costs** |
| **6. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS** |  |  |  |  |  |  |  |  |  |  |
|  | **Contractor Mobilization / Demobilization** |  |  |  |  |  |  |  |  |  |
| 6.1 | Mobilization / Demobilization | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Project Management, Material Handling and Amenities** |  |  |  |  |  |  |  |  |  |
| 6.2 | Project Management & Staffing (includes PM, Field Engineers / Supervision, Scheduler and Cost Manager, SHEQ Staff, and Admin Staff) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | Includes all PM Staff, Per Diems, Vehicles and Expenses. 6 months added for pre-construction time and 2 months for close-out time. |
| 6.3 | Utility PM and Project Oversite | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.4 | Site Accommodation, Facilities, Storage | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Engineering** |  |  |  |  |  |  |  |  |  |
| 6.5 | Design Engineering | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.6 | LiDAR | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.7 | Geotech | - | Location | $ - | $ - |  | $ - | $ - | **$ -** | One Test Bore Per Mile. |
| 6.8 | Surveying/Staking | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Testing and Commissioning** |  |  |  |  |  |  |  |  |  |
| 6.9 | Testing and Commissioning of T-Line and Equipment | - | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
|  | **Permitting and Additional Costs** |  |  |  |  |  |  |  |  |  |
| 6.10 | Environmental Licensing and Permitting Costs | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 6.11 | Environmental Mitigation | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 6.12 | Warranties / LOC's | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.13 | Real Estate Costs (e.g., New ROW) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.14 | Real Estate Costs (e.g., Existing Utility ROW) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.15 | Legal Fees | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 6.16 | Sales Tax on Materials | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.17 | Fees for Permits, including Roadway, Railroad, BuilPding, or Other Local ermits | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL – MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Indirect Costs** |

| **[Title of Project]** | | | |  | **[Transmission Line Name] – UG – Install** | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate Revision:** | **#** | **Total:** | **$ -** |  |  |  |  |  |  |  |
|  | ***[Title of Project]*** | | |  |  |  |  |  |  |  |
|  |  | *Supply* | *Installation* | *Total* |  |  |  |  |  |  |
|  | **[Transmission Line Name] – UG – Install** |  |  |  |  |  |  |  |  |  |
|  | 1. SITE PREP/ACCESS/TRAFFIC MANAGEMENT | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 2. ONSHORE CABLE CONDUITS AND VAULTS INSTALLATION | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 3. ONSHORE CABLE PROCUREMENT AND INSTALLATION | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 4. MISCELLANEOUS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 6. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM AND INDIRECTS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTRACTOR MARK-UP (OH&P)** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **SUBTOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTINGENCY ON ENTIRE PROJECT** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **TOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
| **Description of Work:** | | | | | | | | | |  |
| **Item** | **Item Description** | **Estimated Quantity** | **Unit of Measure** | **Material Supply Rate** | **Material Supply Sum** | **Labor & Equipment Supply Rate** | **Labor & Equipment Sum** | **Total Unit Rate** | **TOTAL** | **Comments:** |
| **[Transmission Line Name] – UG – Install** |  |  |  |  |  |  |  |  |  |  |
| **1. SITE PREP/ACCESS/TRAFFIC MANAGEMENT** |  |  |  |  |  |  |  |  |  |  |
| 1.1 | Environmental BMPs / SWPPP Installation, Maintenance and Repairs |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.2 | Existing Utility Conflict and Relocation |  | Mile |  | $ - |  | $ - | $ - | **$ -** |  |
| 1.3 | Flaggers |  | DAY | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.4 | K Rail / Lane Control / Metal Plates |  | LF | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.5 | Police Support |  | HR | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.6 | Additional Traffic Management |  | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.7 | Access / Clearing Costs |  | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.8 | Snow Removal |  | DAY | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.9 | Existing Utility Protection |  | Mile | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.10 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.11 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.12 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.13 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.14 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.15 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL – SITE PREP/ACCESS/TRAFFIC MANAGEMENT** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **2. ONSHORE CABLE CONDUITS AND VAULTS INSTALLATION** |  |  |  |  |  |  |  |  |  |  |
| 2.1 | Trench Box Shoring & Trench Box Install Crew |  | Miles |  | $ - |  | $ - | $ - | **$ -** |  |
| 2.2 | Formwork in Trench |  | SF |  | $ - |  | $ - | $ - | **$ -** |  |
| 2.3 | Trench Excavation |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.4 | Supply & Install XX” Sand Bedding for direct bury conduits |  | SF |  | $ - |  | $ - | $ - | **$ -** |
| 2.5 | Supply & Install Thermal Backfill |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.6 | Supply & Install Concrete Cap (XX”) |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.7 | Native Backfill -direct bury conduits sys Trench |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.8 | Supply & Install Ductbank Concrete |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.9 | Conduit XX” HDPE |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.10 | Conduit XX” HDPE |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.11 | Conduit XX” HDPE |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.12 | Warning Tape |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.13 | Trench Box Shoring (Vault) |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.14 | Splice Vault Excavation |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.15 | Splice Vault Supply and Installation |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.16 | Splice Vault Backfill |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.17 | Jack and Bore along Route |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.18 | HDD along Route |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.19 | Air Test Ducts |  | LF |  | $ - |  | $ - | $ - | **$ -** |
| 2.20 | PVMT, ASPHALT, 2” SURFACE COURSE |  | SY |  | $ - |  | $ - | $ - | **$ -** |
| 2.21 | PVMT, AGGREGATE, 10” BASE COURSE |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.22 | Concrete Ductbank Thermal Resistivity Testing (every 100CY of concrete poured) |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.23 | Concrete Ductbank Compressive Strength Testing (every 100CY of concrete poured) |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.24 | Backfill Thermal Resistivity Testing (every 100CY of backfill placed) |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.25 | Additional Misc. Testing Allowance (Native Backfill, Asphalt Density, Concrete Curb Etc.) |  | LS |  | $ - |  | $ - | $ - | **$ -** |
| 2.26 | Excess Materials Disposal to Certified Backfill |  | CY |  | $ - |  | $ - | $ - | **$ -** |
| 2.27 | Rock Excavation and Removal |  | LS |  | $ - |  | $ - | $ - | **$ -** |
| 2.28 | Dewatering |  | EA |  | $ - |  | $ - | $ - | **$ -** |
| 2.29 | Contaminated Water Treatment and Disposal |  | LS |  | $ - |  | $ - | $ - | **$ -** |
| 2.30 | Contaminated Spoils Disposal |  | LS |  | $ - |  | $ - | $ - | **$ -** |
| 2.31 | Excavated Material – Stockpile Management |  | CF |  | $ - |  | $ - | $ - | **$ -** |
| 2.32 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL – ONSHORE CABLE CONDUITS & VAULTS INSTALLATION** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **3. ONSHORE CABLE PROCUREMENT AND INSTALLATION** |  |  |  |  |  |  |  |  |  |  |
| 3.1 | Circuit #1- Procurement & Installation- XXXkV XXXXkcmil XXXXXXXX Cable |  | FT |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2 | Circuit #1- Cable Splicing- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.3 | Circuit #1- Cable Termination- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.4 | Circuit #2- Procurement & Installation- XXXkV XXXXkcmil XXXXXXXX Cable |  | FT |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.5 | Circuit #2- Cable Splicing- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.6 | Circuit #2- Cable Termination- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.7 | Circuit #3- Procurement & Installation- XXXkV XXXXkcmil XXXXXXXX Cable |  | FT |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.8 | Circuit #3- Cable Splicing- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.9 | Circuit #3- Cable Termination- XXXkV XXXXkcmil XXXXXXXXX Cable |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.10 | Link Box & MH racking |  | EA |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.11 | Fiber Optic Cable |  | FT |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.12 | Ground Continuity Conductor |  | FT |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.13 |  |  |  |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.14 |  |  |  |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.15 |  |  |  |  | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL – ONSHORE CABLE PROCUREMENT AND INSTALLATION:** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **4. MISCELLANEOUS** |  |  |  |  |  |  |  |  |  |  |
| 4.1 | [Add Description of Each Conductor Type] |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.2 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.3 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.4 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.5 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.6 |  |  | LF |  | $ - |  | $ - | $ - | **$ -** |  |
| 4.7 | Rider Poles (# of Locations) |  | Set |  | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL: MISCELLANEOUS** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **[Transmission Line Name] – UG – Install** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Direct Costs** |
| **5. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS** |  |  |  |  |  |  |  |  |  |  |
|  | **Contractor Mobilization / Demobilization** |  |  |  |  |  |  |  |  |  |
| 5.1 | Mobilization / Demobilization | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Project Management, Material Handling and Amenities** |  |  |  |  |  |  |  |  |  |
| 5.2 | Project Management & Staffing (includes PM, Field Engineers / Supervision, Scheduler and Cost Manager, SHEQ Staff, and Admin Staff) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | Includes all PM Staff, Per Diems, Vehicles and Expenses. 6 months added for pre-construction time and 2 months for close-out time. |
| 5.3 | Utility PM and Project Oversite | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.4 | Site Accommodation, Facilities, Storage | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Engineering** |  |  |  |  |  |  |  |  |  |
| 5.5 | Design Engineering | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.6 | LiDAR | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.7 | Geotech | - | Location | $ - | $ - |  | $ - | $ - | **$ -** | One Test Bore Per Mile. |
| 5.8 | Surveying/Staking | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Testing and Commissioning** |  |  |  |  |  |  |  |  |  |
| 5.9 | Testing and Commissioning of T-Line and Equipment | - | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
|  | **Permitting and Additional Costs** |  |  |  |  |  |  |  |  |  |
| 5.10 | Environmental Licensing and Permitting Costs | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 5.11 | Environmental Mitigation | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 5.12 | Warranties / LOC’s | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.13 | Real Estate Costs (e.g., New ROW) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.14 | Real Estate Costs (e.g., Existing Utility ROW) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.15 | Legal Fees | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** | In DPS. |
| 5.16 | Sales Tax on Materials | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.17 | Fees for Permits, including Roadway, Railroad, Building, or Other Local Permits | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Indirect Costs** |

| **[Title of Project]** | | | |  | **[Transmission Line Name] - Removal** | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate Revision:** | **#** | **Total:** | **$ -** |  |  |  |  |  |  |  |
|  | ***[Title of Project]*** | | |  |  |  |  |  |  |  |
|  |  | *Supply* | *Installation* | *Total* |  |  |  |  |  |  |
|  | **[Transmission Line Name] - Removal** |  |  |  |  |  |  |  |  |  |
|  | 1. CLEARING AND ACCESS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 2. FOUNDATIONS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 3. STRUCTURES | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 4. CONDUCTOR, SHIELDWIRE, OPGW | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 5. INSULATORS, FITTINGS, HARDWARE | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 6. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM AND INDIRECTS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTRACTOR MARK-UP (OH&P)** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **SUBTOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTINGENCY ON ENTIRE PROJECT** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **TOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
| **Description of Work:** | | | | | | | | | |  |
| **Item** | **Item Description** | **Estimated Quantity** | **Unit of Measure** | **Material Supply Rate** | **Material Supply Sum** | **Labor & Equipment Supply Rate** | **Labor & Equipment Sum** | **Total Unit Rate** | **TOTAL** | **Comments:** |
| **[Transmission Line Name] - Removal** |  |  |  |  |  |  |  |  |  |  |
| 1 | CLEARING ANDACCESS |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 2 | FOUNDATIONS |  |  |  | $ - |  | $ - | $ - | **$ -** |  |
| 3 | STRUCTURES |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 4 | CONDUCTOR, SHIELDWIRE, OPGW |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 5 | INSULATORS, FITTINGS, HARDWARE |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| **TOTAL -Removal:** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **[Transmission Line Name] - Removal** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Direct Costs** |
| **6. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM AND INDIRECTS** |  |  |  |  |  |  |  |  |  |  |
|  | **Contractor Mobilization / Demobilization** |  |  |  |  |  |  |  |  |  |
| 6.1 | Mobilization / Demobilization | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Project Management, Material Handling and Amenities** |  |  |  |  |  |  |  |  |  |
| 6.2 | Project Management & Staffing (includes PM, Field Engineers / Supervision, Scheduler and Cost Manager, SHEQ Staff, and Admin Staff) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.3 | Utility PM and Project Oversite | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.4 | Site Accommodation, Facilities, Storage | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Engineering** |  |  |  |  |  |  |  |  |  |
| 6.5 | Design Engineering | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.6 | LiDAR | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.7 | Geotech | - | Location | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 6.8 | Surveying/Staking | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Testing and Commissioning** |  |  |  |  |  |  |  |  |  |
| 6.9 | Testing and Commissioning of T-Line and Equipment | - | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
|  | **Permitting and Additional Costs** |  |  |  |  |  |  |  |  |  |
| 6.10 | Environmental Licensing and Permitting Costs | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.11 | Environmental Mitigation | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.12 | Warranties / LOC's | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.13 | Real Estate Costs (e.g., New ROW) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.14 | Real Estate Costs (e.g., Existing Utility ROW) | - | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 6.15 | Legal Fees | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.16 |  | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.17 |  | - | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 6.18 | Sales Tax on Materials | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.19 | Fees for Permits, including Roadway, Railroad, Building, or Other Local Permits | - | LS |  | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, AND INDIRECTS** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Indirect Costs** |

| **[Title of Project]** | | | | | **[Substation Name] - Install** | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate Revision:** | **#** | **Total:** | **$ -** |  |  |  |  |  |  |  |
|  | ***[Title of Project]*** | | | |  |  |  |  |  |  |
|  |  | *Supply* | *Installation* | *Total* |  |  |  |  |  |  |
|  | **[Substation Name] - Install** |  |  |  |  |  |  |  |  |  |
|  | 1. SITE PREP/ GRADING/ FENCING / CIVIL | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 2. SUBSTATION FOUNDATIONS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 3. SUBSTATION STRUCTURES | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 4. MAJOR EQUIPMENT | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 5. TURNKEY SYSTEMS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 6. UNDERGROUND CABLES AND TERMINATIONS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 7. MINOR EQUIPMENT | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 8. CONTROL HOUSE / PANELS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 9. MINOR MATERIALS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 10. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM AND INDIRECTS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTRACTOR MARK-UP (OH&P)** | **$ -** | **$ -** | **$ -** | **0.0%** |  |  |  |  |  |
|  | **SUBTOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTINGENCY ON ENTIRE PROJECT** | **$ -** | **$ -** | **$ -** | **0.0%** |  |  |  |  |  |
|  | **TOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
| **Description of Work:** | | | | | | | | | |  |
| **Item** | **Item Description** | **Estimated Quantity** | **Unit of Measure** | **Material Supply Rate** | **Material Supply Cost** | **Labor & Equipment Supply Rate** | **Labor & Equipment Cost** | **Total Unit Rate** | **TOTAL** | **Comments:** |
| **[Substation Name] - Install** |  |  |  |  |  |  |  |  |  |  |
| **1. SITE PREP/ GRADING/ FENCING / CIVIL** |  |  |  |  |  |  |  |  |  |  |
| 1.1 | Site Works, including Clearing, Sediment Controls, Rough Grading, and Final Grading |  | ACRES | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.2 | Station Stone Within Substation Fence |  | CY | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.3 | Substation Fence |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.4 | Retaining Wall |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.5 | Compacted Fill |  | CY | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.6 | Permanent Access Road |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - SITE PREP/ GRADING/ FENCING / CIVIL** |  |  |  |  | $ - |  | $ - |  | $ - |  |
| **2. SUBSTATION FOUNDATIONS** |  |  |  |  |  |  |  |  |  |  |
| **2.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 2.1a | [List Foundation Types] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.1k |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **2.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 2.2a | [List Foundation Types] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 2.2k |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - SUBSTATION FOUNDATIONS** |  |  |  |  | $ - |  | $ - |  | $ - |  |
| **3. SUBSTATION STRUCTURES** |  |  |  |  |  |  |  |  |  |  |
| **3.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  | Steel Weight/ Structure |
| 3.1a | [List Structure Types] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.1k |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **3.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 3.2a | [List Structure Types] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 3.2k |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - SUBSTATION STRUCTURES** | |  |  |  | $ - |  | $ - |  | $ - |  |
| **4. MAJOR EQUIPMENT** |  |  |  |  |  |  |  |  |  |  |
| **4.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 4.1a | [List Major Equipment -Transformers, Breakers, Capacitors, Reactors, Etc.)] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **4.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 4.2a | [List Major Equipment] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 4.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MAJOR EQUIPTMENT** | |  |  |  | $ - |  | $ - |  | $ - |  |
| **5. MANUFACTURER TURNKEY EQUIPMENT SYSTEMS (HVDC, GIS, etc.)** |  |  |  |  |  |  |  |  |  |  |
| **5.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 5.1a | [List Turnkey Equipment System—HVDC, GIS, Etc.—and include description of scope of work included, such as components, building, foundations, shipping, installation, testing, etc.)] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **5.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 5.2a | [List Turnkey Equipment System—HVDC, GIS, Etc.—and include description of scope of work included, such as components, building, foundations, shipping, installation, testing, etc.)] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 5.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - TURNKEY SYSTEMS** | |  |  |  | $ - |  | $ - |  | $ - |  |
| **6. UNDERGROUND POWER CABLES AND TERMINATIONS** |  |  |  |  |  |  |  |  |  |  |
| **6.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 6.1a | [List underground power cables routed within substation or interties between adjacent substations. (Do not include transmission lines cables included in Transmission Section.) List cable terminations installed within the substation] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **6.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 6.2a | [List underground power cables routed within substation or interties between adjacent substations. (Do not include transmission lines cables included in Transmission Section.) List cable terminations installed within the substation] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 6.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - UNDERGROUND POWER CABLES AND TERMINATIONS** | |  |  |  | $ - |  | $ - |  | $ - |  |
| **7. MINOR EQUIPMENT** |  |  |  |  |  |  |  |  |  |  |
| **7.1** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 7.1a | [List Equipment—Switches, VT's CCVT's, CT's Arresters, Wave Traps, Station Service Equipment, Etc.] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.1j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **7.2** | **[Voltage Class]** |  |  |  |  |  |  |  |  |  |
| 7.2a | [List Equipment—Switches, VT's CCVT's, CT's Arresters, Wave Traps, Station Service Equipment, Etc.] |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2b |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2c |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2d |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2e |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2f |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2g |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2h |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 7.2j |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  |  |  |  |  |  |  |  |  |  |  |
| **TOTAL - MINOR EQUIPMENT / MATERIALS** |  |  |  |  | $ - |  | $ - |  | $ - |  |
| **8. CONTROL HOUSE / PANELS / GENERATOR** |  |  |  |  |  |  |  |  |  |  |
| 8.1 | Control House ([Dimensions]) |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.2 | Batteries |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.3 | Control Cables |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.4 | SCADA and Communications |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.5 | Low Voltage AC Distribution |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.6 | DC Distribution System |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.7 | Security |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.8 | Fire Alarm |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.9 | Generator |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.10 | Protection and Telecom Equipment Panels |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.11 | Protection and Telecom Equipment Panels |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.12 | Protection and Telecom Equipment Panels |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - CONTROL HOUSE / PANELS / GENERATOR** | |  |  |  | $ - |  | $ - |  | **$ -** |  |
| **9. MINOR MATERIALS** |  |  |  |  |  |  |  |  |  |  |
| 9.1 | Cable Trench System |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.2 | Conduit |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.3 | Rigid Bus, Fittings and Insulators |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.4 | Strain Bus, Connectors and Insulators |  | LF | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.5 | Grounding System |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.6 |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.7 |  |  | EA | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.8 |  |  | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.9 |  |  | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.10 |  |  | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 9.11 | Misc. Materials (Above and Below Ground) |  | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MISC ITEMS** | |  |  |  | $ - |  | $ - |  | $ - |  |
| **[Substation Name] - Install** |  |  |  |  | $ - |  | $ - |  | $ - | **Total Direct Costs** |
| **10. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM and INDIRECTS:** |  |  |  |  |  |  |  |  |  |  |
|  | **Contractor Mobilization / Demobilization** |  |  |  |  |  |  |  |  |  |
| 10.1 | Mob / Demobilization | 1.0 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Project Management, Material Handling, and Amenities** |  |  |  |  |  |  |  |  |  |
| 10.2 | Project Management & Staffing (includes PM, Field Engineers / Supervision, Scheduler and Cost Manager, SHEQ Staff, and Admin Staff) | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.3 | Utility PM and Project Oversite | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.4 | Site Accommodation, Facilities, and Storage | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Engineering** |  |  |  |  |  |  |  |  |  |
| 10.5 | Design Engineering | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.6 | LiDAR | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.7 | Geotech | 4 | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 10.8 | Surveying/Staking | 1 | Site | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Testing and Commissioning** |  |  |  |  |  |  |  |  |  |
| 10.9 | Testing and Commissioning of T-Line and Equipment | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Permitting and Additional Costs** |  |  |  |  |  |  |  |  |  |
| 10.10 | Environmental Licensing and Permitting Costs | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.11 | Environmental Mitigation | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.12 | Warranties / LOC's | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.13 | Real Estate Costs (New) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.14 | Real Estate Costs (Existing Utility Owned) | 1 | LS | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 10.15 | Legal Fees | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.16 | Allowance for Funds Used During Construction (AFUDC) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.17 |  | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.18 | Sales Tax on Materials | 1 | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 10.19 | Fees for Permits, Including Roadway, Railroad, Building, or Other Local Permits | 1 | LS |  | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM, and INDIRECTS** |  |  |  |  | $ - |  | $ - |  | **$ -** | **Total Indirect Costs** |

| **[Title of Project]** | | | | | **[Substation Name] - Removal** | | | | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Estimate Revision:** | **#** | **Total:** | **$ -** |  |  |  |  |  |  |  |
|  | ***[Title of Project]*** | | | |  |  |  |  |  |  |
|  |  | *Supply* | *Installation* | *Total* |  |  |  |  |  |  |
|  | **[Substation Name] - Removal** |  |  |  |  |  |  |  |  |  |
|  | 1. SITE PREP/ GRADING/ FENCING / CIVIL | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 2. SUBSTATION FOUNDATIONS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 3. SUBSTATION STRUCTURES | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 4. MAJOR EQUIPMENT | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 5. MINOR EQUIPMENT | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 6. CONTROL HOUSE / PANELS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 7. MINOR MATERIALS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | 8. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM and INDIRECTS | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTRACTOR MARK-UP (OH&P)** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **SUBTOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **CONTINGENCY ON ENTIRE PROJECT** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
|  | **TOTAL:** | **$ -** | **$ -** | **$ -** |  |  |  |  |  |  |
| **Description of Work:** | | | | | | | | | |  |
| **Item** | **Item Description** | **Estimated Quantity** | **Unit of Measure** | **Material Supply Rate** | **Material Supply Cost** | **Labor & Equipment Supply Rate** | **Labor & Equipment Cost** | **Total Unit Rate** | **TOTAL** | **Comments:** |
| **[Substation Name] - Removal** |  |  |  |  |  |  |  |  |  |  |
| **1. SITE PREP/ GRADING/ FENCING / CIVIL** |  |  |  |  |  |  |  |  |  |  |
| 1.1 | [List major components of removal] |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.2 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.3 |  |  |  | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 1.4 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.5 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.6 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.7 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.8 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.9 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 1.10 |  |  |  | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - Removal Costs** |  |  |  |  | $ - |  | $ - |  | $ - |  |
| **[Substation Name] - Removal** |  |  |  |  | $ - |  | $ - |  | $ - | **Total Direct Costs** |
| **8. MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM and INDIRECTS:** |  |  |  |  |  |  |  |  |  |  |
|  | **Contractor Mobilization / Demobilization** |  |  |  |  |  |  |  |  |  |
| 8.1 | Mobilization / Demobilization | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Project Management, Material Handling, and Amenities** |  |  |  |  |  |  |  |  |  |
| 8.2 | Project Management and Staffing (include PM, Field Engineers / Supervision, Scheduler and Cost Manager, SHEQ Staff, and Admin Staff) | - | LS |  |  | $ - | $ - | $ - | **$ -** |  |
| 8.3 | Utility PM and Project Oversite | - | LS |  | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.4 | Site Accommodation, Facilities, Storage | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Engineering** |  |  |  |  |  |  |  |  |  |
| 8.5 | Design Engineering | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.6 | LiDAR | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.7 | Geotech | - | EA | $ - | $ - |  | $ - | $ - | **$ -** |  |
| 8.8 | Surveying/Staking | - | Site | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Testing and Commissioning** |  |  |  |  |  |  |  |  |  |
| 8.9 | Testing and Commissioning of T-Line and Equipment | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
|  | **Permitting and Additional Costs** |  |  |  |  |  |  |  |  |  |
| 8.10 | Environmental Licensing and Permitting Costs | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.11 | Environmental Mitigation | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.12 | Warranties / LOC's | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.13 | Real Estate Costs (New) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.14 | Real Estate Costs (Existing Utility Owned) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.15 | Legal Fees | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.16 | Allowance for Funds Used During Construction (AFUDC) | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.17 |  | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.18 | Sales Tax on Materials | - | LS | $ - | $ - | $ - | $ - | $ - | **$ -** |  |
| 8.19 | Fees for Permits, Including Roadway, Railroad, Building. or Other Local Permits | - | LS |  | $ - | $ - | $ - | $ - | **$ -** |  |
| **TOTAL - MOB/DEMOB, ENGINEERING, PERMITTING, T&C, PM & INDIRECTS** |  |  |  |  | $ - |  | $ - |  | $ - | **Total Indirect Costs** |

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| --- | --- |
| **ESTIMATE ASSUMPTIONS & CLARIFICATIONS** | |
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