



**Public Service Company of Oklahoma
Fort Sill
New Generation Project**

**SCOPE OF WORK
Photovoltaic Solar Work
FS-LC-0003**

REVISION 0, SEPTEMBER 7, 2022

Table of Contents

1.0	INTRODUCTION	3
2.0	DESCRIPTION OF WORK	3
3.0	CONTRACT DOCUMENTS, INCORPORATION, PRIORITIES	5
4.0	OWNER SUPPLIED DOCUMENTS	6
5.0	NOTICES	7
6.0	TERM/SCHEDULE OF WORK/RENEWALS	7
6.1	Key Milestones	7
6.2	Project Schedule.....	7
6.3	Holidays	8
6.4	Work Shift Schedules.....	8
7.0	PRICING AND ADJUSTMENTS	8
8.0	INVOICING	9
9.0	OBLIGATIONS (CONTRACTOR, OTHER)	10
9.1	Contractor Obligations	10
9.1.1	Contractor-Furnished Services and Facilities	10
9.1.2	Mobilization and Demobilization	11
9.1.3	Protection of Work.....	12
9.2	This Section not in use.	12
9.3	Other Obligations	12
9.3.1	Owner-Furnished Services and Facilities	12
9.3.2	Owner Furnished Materials (Pre-Mobilization).....	13
9.3.3	Owner Furnished Materials (Post-Mobilization)	13
9.3.4	Owner’s Storeroom.....	13
9.3.5	Contractor Furnished Materials	13
9.3.6	Storage Areas.....	13
10.0	ADMINISTRATION AND MANAGEMENT	13
10.1	Labor Information	13
10.2	Change Orders.....	14
10.3	Notification to Owner	14
10.4	Changes in Work – Lump Sum Basis	14
10.5	Changes in Work – Cost-Plus Basis.....	14
10.6	Disputed EWOs.....	15
10.7	Cooperation and Coordination	15
10.8	Subcontractors.....	15
10.9	Requests for Information (“RFIs”).....	16
10.10	Additional Equipment Mobilization.....	16

11.0 PERFORMANCE MANAGEMENT16

 11.1 Safety, Health and Environmental Requirements16

 11.2 Quality Assurance / Quality Control Requirements17

12.0 SUPPLIER DIVERSITY18

13.0 VERO DATA MANAGEMENT SYSTEM.....18

14.0 REBATES AND VOLUME DISCOUNTS19

15.0 PROGRESS AND REPORTING19

16.0 CLEANUP AND DISPOSAL OF SCRAP AND DEBRIS19

 16.1 Continuous Cleanup20

 16.2 Disposal.....20

 16.3 Preparation for Testing.....20

 16.4 Completion of Work20

17.0 COMPLETION REQUIREMENTS.....20

 17.1 Construction Turnovers/Construction Releases20

 17.2 Substantial Completion21

 17.3 Final Acceptance.....22

18.0 IDENTIFICATION OF CONTRACTOR’S EMPLOYEES22

19.0 SHOP DRAWINGS23

20.0 DIMENSIONS24

21.0 FINANCIAL SECURITY REQUIREMENTS24

DRAFT

1.0 INTRODUCTION

- 1.1 This is the Scope of Work for Contract No. 00000000 between Owner and Contractor (“SOW”).
- 1.2 This SOW contains the technical and commercial understanding between Owner and Contractor.
- 1.3 Capitalized terms used but not defined in this SOW shall have the same meaning as in the applicable Owner general terms and conditions in Appendix 1 and as in the Contract Letter.

2.0 DESCRIPTION OF WORK

- 2.1 Contractor agrees to furnish engineering, material, supervision, construction labor, permitting, equipment and commissioning services necessary for the Photovoltaic Solar work located at the Fort Sill PV Generating Facility near the intersection of Spalding Ave and Haws Street within the Fort Sill Military Base in Lawton, OK 73503, as more fully described herein.
- 2.2 All Work shall be performed in accordance with the governing federal, state and local codes, regulations and ordinances that are in force in the jurisdiction where the Owner’s property is located and shall be in compliance with applicable industry standards and practices and Owner’s procedures, policies and guidelines.
- 2.3 The Work described in this Scope of Work document generally encompasses all the Work to be performed; however, the description is in no way definitive of all the details and tasks which must be performed by the Contractor to fully and properly complete the Work.
- 2.4 Contractor shall conduct a site visit to review existing field conditions for this Work prior to finalizing a proposal. Requests for Change Orders and associated costs for Extra Work or additional work required as a result of the existing field conditions will not be accepted or approved by Owner if such existing field conditions could have been reasonably ascertained by a site visit.
- 2.5 Contractor shall furnish all materials required for this Work. Contractor shall offload all materials and provide adequate storage and preventative maintenance for all materials prior to installation.
- 2.6 Contractor may utilize the Sheridan Rd gate to access the base (for personnel only). All truck traffic, equipment and material/other deliveries shall utilize only the Apache Gate Rd entrance near the intersection of Apache Gate Rd and Rt 49 to access the base.
- 2.7 Contractor shall furnish an optional price on Form 1 to utilize the Snow Rd entrance at the Visitor Control Center near the intersection of Sheridan Rd and Rt. 62 which will significantly reduce on-base travel time and inspections of persons and vehicles. Contractor shall include additional fencing and fence modifications required to interconnect the work site perimeter fencing with the existing fence near this alternate entrance with the optional price.
- 2.8 Contractor shall utilize extreme care and caution to reduce noise, dust and traffic near the north of the work location to minimize impact on the McGlachlin Ave daycare center. Work shall not impact emergency and normal vehicular traffic from and to the day care center.

- 2.9 The site has a remote potential to contain unexploded ordnances deeper than 24” below existing grade elevation. Contractor’s personnel shall participate in on-site training regarding Munitions and Explosives of Concern (MEC). Removal, handling and/or processing of any MEC item is not included in Contractor’s Work.
- 2.10 A foundation design consideration that may be appropriate is a non-penetrating, ballasted system. All supports and ballasts shall be adequate to withstand the soil chemistry and wind forces of the project site location. Foundations shall be of sufficient strength and stiffness to support anticipated loads and load combinations imposed by Industry Codes and Standards.
- 2.11 Existing stormwater drains and culverts are preferred to be re-used as practically possible. Contractor shall verify drains within the designated Work area are in good operating condition and repair/modify as needed if they will be re-used.
- 2.12 This item not in use.
- 2.13 Contractor shall provide a complete set of signed and sealed drawings, plans and specifications by a licensed professional engineer in the State of Oklahoma.
- 2.14 Contractor shall complete geotechnical studies required for the Work. Owner’s geotechnical report included in Appendix 4 is preliminary for bid purposes only and shall not be used for execution of the Work.
- 2.15 Contractor shall furnish all factory tests reports to Owner with the as-built drawings unless specifically requested in accordance with Article 9.7 of the General Terms and Conditions in Appendix 1.
- 2.16 Contractor shall furnish an interconnection metering system with all necessary equipment including but not limited to potential transformers, current transformers and digital metering to facilitate metering class measurement of power flow (MW, MVAR), power factor, voltage and current on a total and per phase basis.
- 2.17 Contractor shall furnish plant systems controls system in accordance with Owner’s control systems requirements in Appendix 4.
- 2.18 A 30 foot setback from Contractor installed perimeter fence shall be maintained for all panels and other equipment.
- 2.19 This facility will be connected to the 13.2kV Mow Way Distribution Substation approximately 1.5 miles away by Owner. Contractor’s point of power output electrical interconnection shall be an overhead wood pole located adjacent to the project boundary. Contractor shall provide a main circuit breaker or recloser to electrically protect the facility.
- 2.20 This facility shall have a capacity expectancy up to 14MW AC photovoltaic. Contractor shall submit a maximum MW size rating for either fixed tilt and/or horizontal single axis tracking utilizing the available space indicated in Appendix 4.
- 2.21 Any existing roadways within the Work location boundaries defined by “Site #5” on drawing BSA – Site Topography and Area Boundaries in Appendix 4 can be utilized for permanent structures.

- 2.22 The Environmental Assessment included in Appendix 3 is preliminary and shall not be used for Engineering/Design/Construction. Contractor shall perform all environmental assessments for final design/construction purposes.
- 2.23 Contractor shall use the Ft Sill Landfill located on Dodge Hill Rd (near intersection of Dodge Hill Rd and Bald Ridge Rd) for all spoils removed from the work area. Contractor is responsible for any/all fees imposed by Ft Sill for use of this landfill.
- 2.24 All existing active underground utilities shall be functionally maintained through completion of the Work.
- 2.25 Contractor shall allocate space for two (2) 19” wide racks for Owner furnished equipment in the control building.
- 2.26 Contractor shall provide one (1) central weather station to collect measurements in accordance with GEN-4550 in Appendix 4. Contractor shall distribute the location of the five (5) pyrometers in plane of array devices throughout the array field.
- 2.27 No operational air permit is required for this installation.
- 2.28 Contractor shall maintain a 20 foot right of way (10ft from centerline) for active gas lines and place no permanent structures in the right of way. Contractor’s installed equipment/materials shall not block any manhole access locations or functional use of the existing storm water system required for use by Contractor’s site drainage plan.
- 2.29 Contractor may change manufacturers/models from those proposed based on product availability. Any potential change(s) will comply with approved vendor lists in Appendix 4 and the technical requirements of the Work.
- 2.30 All persons entering the Ft Sill facility are required to obtain an Unescorted Visitor Access pass at the Ft Sill Visitors Center on Sheridan Rd. Access passes can be valid for up to 365 days in duration. All personnel are required to present their Visitor Access pass to the guard to gain access to the Ft Sill Facility – including all delivery drivers.
- 2.31 Contractor is not required to comply with the Federal Acquisition Regulations (FARs).

3.0 CONTRACT DOCUMENTS, INCORPORATION, PRIORITIES

- 3.1 Contractor agrees that all Work shall be performed in accordance with the Contract documents listed below.
- 3.1.1 Contract Letter.
- 3.1.2 The SOW for Contract, Revision 0, dated September 7, 2022, and the following attached Appendices:

Appendix 1: AEP General Terms and Conditions for Engineering, Procurement and Construction Work May 2021 Rev. 0 (“General Terms and Conditions”);

Appendix 2: AEP Safety and Health Supplemental Terms and Conditions, dated 12/18/20 Rev. 01; Pre-Work Hazard Assessment (“PWA”) dated 8/31/22;

Appendix 3: This Section not in use.

Appendix 4: Technical Requirements – Draft Specification GEN-PV-2022 dated 9/2/22;

3.1.3 Exhibit B, consisting of:

Contractor’s Proposal.

3.2 In the event of a conflict among any of the Contract documents, the conflict shall be resolved by interpreting the documents in their above listed order of priority.

4.0 OWNER SUPPLIED DOCUMENTS

4.1 Contractor shall be responsible for reviewing all Contract documents for the Work and ensuring that Contractor is in receipt of all current necessary and applicable Contract documents pertaining to the Work, including any drawings and technical specifications.

4.2 Upon Owner’s issuance of additional drawings or specifications, or any revisions to drawings or specifications, such additional or revised drawings or specification shall become a part of the Contract, and such specifications or drawings shall supersede or revise the previous applicable specifications or drawings set forth in Appendix 4 of the SOW.

4.3 The drawings, standards and specifications (“Documents”) furnished by Owner to Contractor shall be used only for execution of the Work. These Documents are the property of the Owner and shall be returned to the Owner upon completion of the Work, upon termination of the Contract or upon request by Owner.

4.4 The Documents furnished by Owner, whether included in the Contract or issued after the Contract award, are intended to supplement each other without being unduly repetitive. Items adequately addressed in any one Document need not be re-addressed in any other Document.

4.5 Owner may provide a Document Issue Record to Contractor with Documents furnished at the Site that lists:

- The Document identification number;
- Revision number;
- Number of copies issued to Contractor; and,
- Date of issue.

If Owner does provide a Document Issue Record to Contractor, then Contractor shall sign and date such Document Issue Record and return it to Owner within five (5) Business Days of receipt.

4.6 Contractor shall maintain a copy of the signed Contract at the Site.

4.7 Contractor shall have copies of the latest revisions of all Documents, including all engineering drawing/plans and manufacturers manuals and plans, available at the Site at all times for the use by Contractor and Owner.

4.8 Dimensions take precedence over the scale measurements of Documents; however, where obvious discrepancies exist, Contractor shall promptly report the discovery of such discrepancies to Owner and confirm this report in writing within forty-eight (48) hours of the discovery. Owner's interpretation of the meaning of such Documents shall govern.

4.9 Unless otherwise indicated, elevations shown or mentioned in the Documents are referenced from the datum elevation established at the Site by Owner, unless otherwise noted.

5.0 NOTICES

5.1 In accordance with Article 36.0 of the General Terms and Conditions, notices required to be given by the parties shall be sent to the following representatives:

For Owner:

Steven Fumi-Fiamawle
Contract Administration
American Electric Power
1 Riverside Plaza, 22nd Floor
Columbus, OH 43215
Email: smfumi-fiamawle@aep.com
Voice: (614) 716-2024

Rob Taylor
Project Manager
American Electric Power
1 Riverside Plaza, 17th Floor
Columbus, OH 43215
Email: rhtaylor@aep.com
Voice: (614) 716-1798

For Contractor:

6.0 TERM/SCHEDULE OF WORK/RENEWALS

6.1 Key Milestones

6.1.1 The following key milestone dates shall apply to Contractor's Work:

- RFP Technical Conference (Virtual Meeting): September 14, 2022
- Question/Comment Period Complete: September 21, 2022 (4pm EST)
- Contractor Intent to Bid & Ariba Registration Complete: September 21, 2022 (4pm EST)
- Final RFP Issued: September 26, 2022
- Pre-Bid Meeting (Virtual Meeting): October 11, 2022
- Proposal Due: November 4, 2022
- Projected Contract Award: January 30, 2023
- Notice to Proceed: February 28, 2023
- Construction & Commissioning Complete: December 31, 2024

6.2 Project Schedule

6.2.1 Contractor shall prepare a detailed, resource loaded Level 3 schedule in critical path method format using Primavera P6 for Owner's review and prior to Notice to Proceed.

6.3 Holidays

6.3.1 The following days are Owner recognized holidays. Contractor shall not be permitted to perform Work at the Site on these days without Owner's prior approval.

- New Year's Day;
- Memorial Day (last Monday in May);
- Independence Day;
- Labor Day;
- Thanksgiving Day;
- Day after Thanksgiving; and,
- Christmas (two days to be specified).

6.3.2 When any holiday falls on a Saturday, the holiday will usually be observed on the preceding Friday. When a holiday falls on a Sunday the holiday will usually be observed on the following Monday.

6.4 Work Shift Schedules

6.4.1 Contractor's schedule shall outline plans for multiple shifts and extended work days as necessary to perform each phase of the Work.

6.4.2 Contractor may perform extended shifts, extra shifts or weekend work as Contractor deems necessary to maintain the schedule. Contractor shall obtain Owner approval for any deviations from the work shift schedules before performing the Work, not to be unreasonably withheld by Owner.

7.0 PRICING AND ADJUSTMENTS

7.1 Owner shall make progress payments (less retention) towards the total Firm Fixed Contract Price upon completion of each of the activities determined by Owner listed in the Milestone Payment Schedule Form 3 in Appendix 6, provided that the Work is performed in accordance with terms of the Contract. Owner shall base progress payments to Contractor on the completion of milestones as reviewed and approved by Owner.

7.2 Owner and Contractor agree that Form H Hourly Base Wage rates will be updated annually in accordance with revisions to the Hourly Billing Rates plus Contractor's technology charge for Standard Generation Projects (Including CCR/ELG Program) contained in **Contract Number TBD**.

7.2 Liquidated Damages (LDs)

TBD

7.3 Taxes

The parties agree that the payment of taxes, when applicable, shall be in accordance with the provisions of the General Terms and Conditions as clarified below:

7.3.1 Contractor's Purchases

7.3.1.1 If Contractor's Purchases are exempt, Contractor shall use its own properly executed exemption or resale certificate.

7.3.1.2 Unless Owner otherwise specifies, Contractor acknowledges that consumable materials and supplies and Contractor's tools and equipment not incorporated into the Work or project are not eligible for sales or use tax exemption. Contractor further acknowledges that Contractor has included the sales or use taxes for these items in the Contract Price and that it is responsible for payment of such taxes.

7.3.2 Owner's Purchases from Contractor

Owner will provide to Contractor Owner's direct pay permit and/or Owner's manufacturers permit. Sales or use taxes on Owner purchases from Contractor of tangible personal property or taxable services are not to be included in the Contract Price. Contractor shall use its own properly executed exemption or resale certificate to make exempt purchases of tangible personal property or taxable services from vendors or Subcontractors. Contractor acknowledges that its consumable materials and supplies not itemized and sold to Owner and Contractor's tools and equipment used in the performance of services are not included as purchases from Contractor. Contractor further acknowledges that Contractor has included the sales or use taxes for these items in the Contract Price.

8.0 INVOICING

8.1 Contractor shall submit invoices in accordance with Projects Invoicing Requirements in Appendix 5 and such invoices shall be addressed to:

American Electric Power
Cost Control Center
P.O. Box 301
Cheshire, OH 45620

8.2 Owner shall pay 90% of each properly submitted and accepted invoice for the firm fixed Contract Price within forty-five (45) days of receipt. The release of retention shall become due and payable forty-five (45) days after Final Acceptance (reference Section 17.3). Owner will not withhold retention on cost plus or Extra Work performed by Contractor under this Contract. Owner shall pay Contractor within forty-five (45) days of receipt of a properly submitted invoice for cost-plus and Extra Work performed by Contractor under this Contract.

8.3 Owner reserves the right to direct pay Contractor's Subcontractors in the event that Contractor's financial condition deteriorates to an unsatisfactory position as reasonably determined by Owner. If Owner exercises this right, then:

- Contractor shall provide Owner with copies of executed purchase orders and contracts for Equipment and services; and,

- Owner shall provide direct payment to suppliers and subcontractors in accordance with applicable terms except that all invoices shall be reviewed and approved by Contractor prior to being sent to Owner for payment; and,
- Owner's direct payment of such purchase orders and contracts of Contractor's Subcontractors shall satisfy Owner's payment obligations to Contractor under this Contract.

9.0 OBLIGATIONS (CONTRACTOR, OTHER)

9.1 Contractor Obligations

Contractor shall comply with any and all laws, regulations and/or ordinances pertaining to contractor licensing or any licensing requirements for the states in which the Work is performed.

9.1.1 Contractor-Furnished Services and Facilities

- 9.1.1.1 Contractor shall provide and maintain a temporary field office and all other temporary facilities necessary for the use of its employees, including facilities for the storage of its tools and equipment, and the fabrication of materials. Contractor shall provide and maintain all supplies, furniture, equipment, temporary lighting, temporary heating, temporary cooling, janitorial services, porta-johns, sanitary facilities and other similar services necessary for Contractor's temporary facilities.
- 9.1.1.2 Prior to constructing or locating any temporary construction facility, Contractor shall obtain authorization from Owner. Contractor shall provide a listing of trailers to be brought on site five (5) days prior to commencement of Work at Site.
- 9.1.1.3 Contractor shall supply and maintain all necessary tools, equipment, rigging, welding and cutting gases, welding rod, bolts, nuts, washers, lock washers, shims, grout, consumable and miscellaneous supplies required to perform this Work.
- 9.1.1.4 Contractor shall permit Owner access to inspect Contractor's temporary construction facilities to ensure compliance with the requirements of the contract and all applicable codes and specifications. Inspections shall be for the sole benefit of Owner and shall not constitute Owner's approval or release.
- 9.1.1.5 Contractor shall arrange with the telecommunications company to pay for all telephone, computer and internet services for itself and its on Site subcontractors, including charges for installing and removing services.
- 9.1.1.6 Contractor shall provide and maintain temporary power and lighting for work scope, including for tools, equipment and trailers. Contractor shall provide construction equipment which is electrically compatible with Site power systems. Contractor shall provide step-down transformers where required.
- 9.1.1.7 Contractor shall use such roads as are designated by Owner and Fort Sill. Contractor shall build, maintain and remove all other roads, parking areas and other improvements necessary for Contractor to perform its Work or for its convenience, such as adjacent to Contractor's storage areas, fabrication shops and offices. Contractor shall maintain all existing roads, parking and

laydown areas over which it operates heavy construction equipment and shall make repairs to any damaged areas including areas adjacent to such roads, parking and laydown areas.

- 9.1.1.8 Contractor shall assure that its employees park their vehicles only in parking areas within the boundaries of the proposed project site. Only company owned vehicles will be allowed on the work site for use as job site transportation.
- 9.1.1.9 Supply of drinking water, containers, ice and the distribution means to Contractor's personnel will be the Contractor's responsibility.
- 9.1.1.10 Contractor shall furnish all required porta-johns and hand-wash stations.
- 9.1.1.11 An on-Site nurse will **not** be furnished by Owner for the Project. The local hospital facility is approximately 5 miles from the site.
- 9.1.1.12 Contractor is responsible for snow and ice control for the project site and all work areas.
- 9.1.1.13 Contractor shall provide and maintain waste dumpsters for the Site. The waste containers shall be marked for the type of waste and recyclables. Contractor is responsible for its employees and subcontractors to correctly dispose of waste per the correct container.
- 9.1.1.14 Contractor shall create, install and maintain the Stormwater Pollution Prevention Plan (SWPPP) erosion control system. Contractor shall inspect the system (with Owner) weekly and after each rain event in accordance with the SWPPP document and environmental regulations and repair any deficient or damaged areas/sections. Contractor shall be the holder of the SWPPP permit.
- 9.1.1.15 Contractor shall perform maintenance mowing as required by the season.
- 9.1.1.16 Contractor shall furnish and maintain one (1) single wide tractor-trailer length trailer at site for Owner's use during Construction/Commissioning.
- 9.1.1.17 Non-potable water is available on base for dust control and washdown use only and will be metered by Ft Sill for Contractor's purchase.

9.1.2 Mobilization and Demobilization

- 9.1.2.1 Contractor shall supply a list of its electrical load requirements for equipment to be used, including trailers. This list shall be supplied thirty (30) days prior to the commencement of Work.
- 9.1.2.2 Contractor shall provide Owner the following information upon arrival at the Site:
- Certificate of Insurance;
 - Workers Compensation Evidence of Coverage and Current Contributions;
 - State Unemployment Insurance Fund Account and Evidence of Current Contributions;
 - Safety Manual;
 - MSDS, as applicable;
 - Contractor Licenses, as applicable;
 - Completed Work Safety and Health Plan (WSHP) or Job Hazard Analysis (JHA); and,
 - Completed Environmental Work Compliance Plan.

9.1.2.3 Additionally, Contractor shall meet with Owner's accounting, timekeeping, environmental and safety personnel to review procedures required by these departments. Contractor may have representatives of its subcontractor present at this meeting. Contractor shall be responsible for ensuring that all Subcontractors are familiar with the above procedures. This meeting shall not relieve Contractor of its sole responsibility to supply accurate and timely information to its Subcontractors.

9.1.2.4 Contractor shall submit a list of all construction equipment and temporary construction facilities as such items enter the Site which will aid the control of construction equipment and temporary construction facilities leaving the Site. The list shall describe each item in detail, including the serial number, make, model and model year. Failure to list such construction equipment shall exclude it from consideration for cost-plus work. List to be provided at and following site mobilization.

9.1.2.6 Welds made by Contractor for attaching temporary work to permanent work shall be properly removed. The surfaces of the permanent work shall be returned to their original condition to the satisfaction of Owner's representative.

9.1.3 Protection of Work

9.1.3.1 Contractor shall use care and diligence so that the Work performed and all materials, equipment to be installed and tools are at all times thoroughly protected from the weather, loss, and any and all damage arising from falling debris, fly ash, etc. Contractor shall furnish and pay for all such protection.

9.1.3.2 Contractor shall provide and pay for protection from snow, ice and water and for removal of same from all Work areas and materials in its storage or Work areas.

9.1.3.3 Contractor shall provide and pay for winter protection of the Work, including protection for concrete pours and masonry work prior to, during, and after the placement of concrete and masonry work. Contractor shall submit its proposed winter and weather protection plans to Owner for review and approval prior to implementation. Owner's approval does not relieve Contractor of responsibility.

9.2 This Section not in use.

9.3 Other Obligations

9.3.1 Owner-Furnished Services and Facilities

9.3.1.1 Owner's restrooms, showers and change facilities shall **not** be used by Contractor's employees.

9.3.1.2 Contractor may use available electrical power sources and outlets. Contractor will make electrical connections in Owner's Plant and Equipment.

9.3.1.3 Site parking permits for all Contractor's personnel will be issued by Owner and subject to Owner approval.

9.3.1.4 Owner will make 13.2kV electrical power available from an overhead distribution line within 500ft of the Work area. Contractor is responsible for power connections to this source, additional

costs for interconnection with utility (including disconnect/protection), metering and power used, distribution to the Work area and all connections to their equipment, office trailers and other needs.

9.3.1.5 The overhead distribution line running west to east between Lucas Ave and Snow Rd will be removed by Owner prior to construction from a point northwest of Lucas Ave (on west end) and McGlachlin Ave (on east end).

9.3.2 Owner Furnished Materials (Pre-Mobilization)

9.3.2.1 This Section not in use.

9.3.3 Owner Furnished Materials (Post-Mobilization)

9.3.3.1 This Section not in use.

9.3.4 Owner's Storeroom

9.3.4.1 This Section not in use.

9.3.5 Contractor Furnished Materials

9.3.5.1 Contractor shall specifically identify in its proposal to the Contract for evaluation and approval by Owner, any Contractor furnished materials and equipment that it desires to store on Owner's property during the Work and maximum storage duration in weeks for these items.

9.3.5.2 Contractor will maintain care, custody and control of these materials and/or equipment and shall perform the required preventative maintenance with associated records.

9.3.6 Storage Areas

9.3.6.1 Contractor shall allocate space on the site that can be used by Contractor for storage of Contractor furnished materials and identify the location and dimensions of this space in their proposal.

9.3.6.2 Contractor shall maintain and protect all furnished materials in accordance with manufacturer's instructions. If Contractor determines that additional measures are necessary to properly protect such materials and equipment, Contractor shall provide and pay for such additional protection.

10.0 ADMINISTRATION AND MANAGEMENT

10.1 Labor Information

10.1.1 Work may be performed using union or non-union labor. If union labor is used the work shall be performed utilizing the appropriate Building and Construction Trades Unions with work assignments made based on jurisdictional agreements of record. If union labor is used the Contractor and the Building and Construction Trade Unions will mutually agree on the safest and most productive labor agreement for the Work traditionally performed by the trade unions. Additionally, the Davis-Bacon Act applies to this Work. Contractor and Subcontractors shall pay their work force no less than the locally prevailing wages and fringe benefits for corresponding work on similar projects in the area or region. Use of 90% NMA wage rates are not applicable to this Work.

- Union Contractors shall have applied for any labor agreements at the time of bidding and must be in possession of them with permission for their use by the affected International Union(s) prior to being awarded the Work.
- Questions regarding the use of union personnel may be addressed to Mr. Mike Tussey, Labor Relations at (614) 716-1713 or mtussey@aep.com.
- Picketing and failure to man Work by any craft shall be at the risk of losing future Work at this Site.

10.1.2 Contractor shall be responsible to assess the local labor conditions under which Work is to be performed.

10.1.3 The employment of necessary labor to perform all Work defined in these specifications will be Contractor's responsibility.

10.1.4 If union Contractor is used they shall be required to have a pre-job meeting with the local Building and Trades Council before starting Work. Contractor shall notify Owner so that Owner may attend the meeting.

10.1.5 Contractor that performs the work shall abide by any and all applicable labor laws, rules and regulations regarding work performed on Federal Government property or in which Federal monies or incentives are Involved. This includes, but is not limited to, Prevailing Wage, Apprenticeship Requirements and Labor Peace Agreements.

10.2 Change Orders

10.2.1 Any work Contractor performs that is not identified in this Scope of Work document and Appendices as being part of Contractor's Work scope under this Contract will be authorized by issuing Contractor a Change Order as defined in Article 14.0, of the General Terms and Conditions. The Owner's mechanisms for the issuance of Change Orders are either a Site generated EWO (extra work order) or a Contract amendment.

10.3 Notification to Owner

10.3.1 Contractor shall notify Owner within five (5) Business Days of its discovery of any discrepancies between drawings, specifications, field conditions and any laws, ordinances, rules, regulations or codes that apply to the Work for any item that Contractor deems to be qualified as Changes in Work for which it intends to seek compensation. Contractor shall provide in its notice the reasons its request should be considered a Change in Work. Contractor shall submit a written estimate of the impacts to the schedule, man-hours, labor cost and material cost of the Change in Work.

10.3.2 Owner and Contractor shall determine the method of payment (firm price, unit price, time and material, cost-plus) with the issuance of the Change Order. The requirements outlined in Section 10.5 shall apply to cost-plus work Change Orders.

10.4 Changes in Work – Lump Sum Basis

10.4.1 Change Orders for Changes in Work to be performed on a lump sum price basis shall be firm including any incremental costs for superintendent(s), office manager(s) or timekeeper(s), or other non-manual personnel.

10.5 Changes in Work – Cost-Plus Basis

10.5.1 Change Orders for Changes in Work to be performed on a cost-plus basis shall be compensated as outlined in the Contract documents including the following requirements:

- Contractor shall provide Owner, at the start of each shift, a personnel roster, which must list the names and badge numbers of those persons who will be assigned to cost-plus work;
- Contractor's personnel shall be identified with a numbered badge in a visible location, such as outside a shirt pocket;
- Contractor shall submit daily timesheets by noon the following work day for all employees that worked on cost-plus work;
- The daily timesheets shall display the name, badge number and craft classification of each worker, Owner's EWO number and any further breakdown, as may be requested by Owner;
- The daily timesheets will be reviewed and signed by the Owner to verify accuracy and approval; and,
- Contractor will not receive payment for any Work performed where Owner has not received and signed a timesheet. The documentation for these Owner-approved costs must be submitted with the invoice.

10.6 Disputed EWOs

10.6.1 The requirements outlined in Article 17.1.9 of the General Terms and Conditions shall apply to work being performed by Contractor under dispute. Owner's signature of daily timesheets is not an admission of liability by Owner.

10.7 Cooperation and Coordination

10.7.1 Owner's facility is within the confines of the Fort Sill Military base that may have other contractors, subcontractors, suppliers, vendors, and consultants performing work in and around the facility simultaneous with Contractor's Work.

10.7.2 Contractor shall not interfere with the operations of the facility or the base external to the designated work area and shall provide access to the designated work area at all times for operations and maintenance personnel.

10.7.3 Contractor shall coordinate daily activities with Owner to ensure that Contractor's activities do not interfere with other Site activities.

10.7.4 Contractor shall avoid interferences with base personnel, the public and local traffic.

10.7.5 Contractor shall not enter any adjoining publicly or privately owned properties.

10.7.6 Contractor shall provide Owner a detailed report of any complaints received from base personnel/representatives, adjoining property owners, the public, and any local motorists.

10.8 Subcontractors

10.8.1 Contractor shall request Owner's consent for any subcontractor that is not listed in Contractor's proposal on the Form C in Exhibit B of the Contract as required in Article 5.0 Assignments and Subcontracting of the General Terms and Conditions.

10.8.2 Contractor shall submit a completed Form A or Form H and Form B for each of its subcontractors, unless this information is included in the Contract. If Owner agrees to accept the additional subcontractor, Owner may choose to incorporate the forms into the Contract by formal amendment. Owner will not accept an additional Contractor mark-up on rates furnished by an affiliated company or organization.

10.9 Requests for Information (“RFIs”)

10.9.1 Contractor shall submit RFIs to Owner’s designated on-Site representative for disposition.

10.9.2 Owner will provide a form and will establish a numbering system for Contractor’s use.

10.9.3 Each RFI shall include the following information:

- The date the RFI was generated;
- The name and contact information of the RFI originator/writer;
- Reference for all Documents in question;
- A clear description of the information that needs clarification and all pertinent background information;
- The signature of the RFI originator/writer; and,
- The name and contact information of the person to receive Owner’s response.

10.9.4 RFIs are not intended to be used to document Changes in Work.

10.10 Additional Equipment Mobilization

10.10.1 Contractor shall submit a revised Form B if Contractor mobilizes equipment that is not listed on the previous equipment pricing Form B. If Owner agrees to accept the pricing and use of the additional equipment, Owner may incorporate the forms into the Contract by formal amendment.

11.0 PERFORMANCE MANAGEMENT

11.1 Safety, Health and Environmental Requirements

11.1.1 Contractor shall perform its Work in a safe and careful manner in accordance with applicable law and is responsible for the safety of its personnel and Subcontractors. Owner’s requirements as set forth in the General Terms and Conditions, Contractor Safety & Health Requirements and the CERD shall apply to the Work.

11.1.2 Completed PWHA and EWCA form is included herein. Contractor shall review these forms in order to prepare a Work Safety and Health Plan (“WSHP”) and an Environmental Work Compliance Plan after Notice to Proceed and prior to arrival at Site.

11.1.3 The WSHP shall include Contractor’s drug testing policy. Contractor shall include the cost of the drug testing in the Contract Price.

11.1.4 Contractor shall review its WSHP and Environmental Work Compliance Plan with Owner’s designated Site personnel prior to entering the Owner’s buildings and other facilities.

- 11.1.5 Contractor shall provide its employees and Subcontractors with the personal protective equipment required to perform Work at the Site.
- 11.1.6 Owner's facilities might contain lead paint, asbestos and chlordane materials unless noted otherwise. If the presence of lead paint, asbestos or other hazardous material is suspected, Contractor shall stop work in the area suspected of containing hazardous material(s) and notify Owner immediately for disposition. Removal, handling and/or mitigation of any lead paint, asbestos, chlordane materials or other hazardous materials discovered at Site which were not brought on-site by Contractor, are not included in Contractor's Work.
- 11.1.7 Contractor acknowledges and agrees that:
- 11.1.7.1 All aerosol cans shall be removed from the job site when work is complete. The removal of aerosol cans from areas of extreme heat prevents a hazard to employees from cans over heating and rupturing.
- 11.1.7.2 All firefighting equipment shall be accessible at all times.
- 11.1.7.3 Trenches, pits or sumps shall be covered or barricaded at all times. The use of caution or danger tape is not considered a barricade.
- 11.1.7.4 Oxygen and acetylene cylinders shall be stored 20 feet apart unless a 5ft high 30-minute fire rated barrier is between the cylinders.
- 11.1.7.5 Contractor shall eliminate clutter at the job site, including but not limited to keeping all hoses and cords off the floor and out of walkways.

11.2 Quality Assurance / Quality Control Requirements

- 11.2.1 Contractor shall maintain a Site-specific Quality Assurance / Quality Control ("QA/QC") Plan for the Scope of Work. Contractor shall submit to Owner a preliminary QA/QC Plan with its proposal in Exhibit B and shall submit a Site-specific QA/QC Plan within fourteen (14) days after Notice to Proceed.
- 11.2.2 The Quality Assurance portion of Contractor's QA/QC Plan shall address the following minimum requirements:
- Management of Change Processes;
 - Document Control/Records Retention Practices;
 - Corrective/Preventative Action and Nonconformity Record Processes;
 - Personnel Qualifications;
 - Design and Review Procedures;
 - Continuous Improvement/Process Measurement and Control; and,
 - Procedure to ensure subcontractors and suppliers follow the Contractor's QA/QC Plan.
- 11.2.3 The Quality Control portion of Contractor's QA/QC Plan shall address the following as minimum requirements:
- Material Receipt and Storage;

- Inspection and Test Plans showing the Activity and the Inspection and Test Requirements based on Scope of Work;
- Corrective/Preventative Action and Nonconformity Record;
- Inspection Procedures including Inspection and Test Forms; and,
- As-Built Drawings and Controls.

11.2.4 Contractor's QA/QC Plan will be reviewed by the Owner for content and applicability to the Scope of Work. Contractor shall address all Owner noted deficiencies to Contractor's QA/QC Plan within fourteen (14) calendar days of its receipt of Owner's comments.

11.2.5 Owner reserves the right to review Contractor to ensure compliance to Contractor's QA/QC Plan.

11.2.6 Contractor shall maintain and have their QA/QC Plan and its associated records available for Owner's review.

12.0 SUPPLIER DIVERSITY

12.1 As a Work deliverable, Contractor and its Subcontractors shall provide periodic reporting on diverse supplier participation as prescribed by the AEP Team Lead – Supplier Diversity. Owner will track Contractor's progress and results on a quarterly basis. It is the responsibility of Contractor and its Subcontractors to submit diverse supplier reporting on, or about, the fifteenth (15th) of the month prior to the new quarter. For purposes of this SOW, new quarter dates are listed below. Contractor and its Subcontractors shall provide to Owner a report via email to: supplierdiversity@aep.com. Such report shall conform to regulatory guidelines and will provide accurate updated information on the use of diverse suppliers for all goods and services associated with Work being performed for Owner. Owner reserves the right to audit this Contract to ensure data integrity and transparency. In addition, Owner's staff will periodically monitor Contractor and Contractor's performance to validate utilization and contract compliance. For Supplier Diversity reporting, yearly quarters are defined as:

- Quarter 1 – January 15th
- Quarter 2 – April 15th
- Quarter 3 – July 15th
- Quarter 4 – October 15th

13.0 VERO DATA MANAGEMENT SYSTEM

13.1 In order to comply with Owner's registration requirement to the VERO Data Management System operated by Safety Management Group (SMG), Contractor shall, at no additional cost to Owner, register with VERO, by going to <https://safetymg.com/preregistration> or by contacting SMG at admin@safetymg.com.

13.2 During the term of the Contract, Contractor shall acquire and maintain an approved qualification status with VERO.

13.3 If during the Contract term, Contractor fails to maintain an approved qualification status with VERO, then, at Contractor's cost and expense, and in addition to any other rights and remedies the Owner may have under the Contract or under the law, the Owner shall have the following rights:

- The right to apply a probationary period where all Work performed by Contractor is temporarily stopped until an investigation is performed;

- The right to stop the Work under the Contract until Owner is satisfied that the cause for the non-passing grade is remedied; and/or,
- The right to terminate the Contract for cause if, in Owner's sole opinion, the grade cannot be improved to a passing level within a reasonable time.

14.0 REBATES AND VOLUME DISCOUNTS

This Section not in use.

15.0 PROGRESS AND REPORTING

15.1 Upon request, Contractor shall provide to Owner Contractor's audited quarterly financial statements including its Income Statement, Balance Sheet and Cash Flow Statement to Owner.

15.2 Contractor shall prepare and furnish to Owner weekly and monthly progress reports and updates as set forth in the GSR. Before submitting any reports to Owner, Contractor shall have Owner's site representative verify the quantities and percent complete that Contractor intends to include in the invoicing report. The weekly progress reports shall also contain the following minimum information:

- A list of major activities with original remove/install quantities listed, quantities removed/installed to date, quantities remaining to remove/install and percent complete;
- Overall progress percent complete (needs to coincide with the progress payment percent complete being requested in the invoicing);
- An updated project schedule showing the original plan milestone start and completion dates versus actual start and actual or projected completion dates. It shall also show the original projected remove/install quantities per week versus actual quantities along with revised projections required to maintain the schedule completion dates;
- Craft availability including the number of and type of craft personnel requested versus actual show up; and,
- Status of each Extra Work Order ("EWO") including:
 - the original estimated man-hour and dollar values;
 - man-hours charged to date against the EWO;
 - percent complete;
 - projected total man-hours to complete the work authorized by the EWO versus the original estimate; and,
 - the projected cost to complete the work authorized by the EWO versus the original estimate.

15.3 Contractor shall attend Owner-conducted daily, weekly, and monthly meetings. Contractor shall have an employee with decision making and signatory authority available to participate in these meetings. Depending upon the work in progress, and contingent upon Owner's approval, this person might be able to conference into these meetings.

16.0 CLEANUP AND DISPOSAL OF SCRAP AND DEBRIS

16.1 Continuous Cleanup

- 16.1.1 Contractor shall keep its Work areas, storage areas, parking areas and other areas of operations clean, orderly, safe and secure.
- 16.1.2 Contractor shall provide an adequate crew at all times to perform continuous cleanup work at the site.
- 16.1.3 Walkways and stairs shall be clean and clear of obstructions. These areas shall be kept clear at all times in case of emergency.
- 16.1.4 Placement of materials and equipment shall not block electrical panels or disconnects when not in use.
- 16.1.5 Regular solid waste shall be placed in the proper disposal containers.
- 16.1.6 Contractor shall inspect work areas for cleanliness and maintain housekeeping at an acceptable standard to Owner.

16.2 Disposal

- 16.2.1 Regular solid waste shall be placed in the proper Contractor furnished disposal containers. Recyclables such as paper, steel, cans etc. should be placed in containers designated for that purpose. No liquids shall be disposed of in the regular trash. Certain types of waste such as paints, solvents, used oil etc. have specific disposal requirements. Contractor shall consult the Environmental Coordinator prior to disposal of these waste types.

16.3 Preparation for Testing

- 16.3.1 Contractor shall thoroughly clean its Work areas in the vicinities of equipment which is to be tested or placed into initial operation.

16.4 Completion of Work

- 16.4.1 Upon completion of the Work, Contractor shall:
- Remove from the Site its surplus material, construction equipment, and tools;
 - Remove its temporary structures, power stands, supports, buildings, trailers and scaffolds, unless otherwise directed in writing by Owner;
 - Leave all of its areas of operations in "broom clean" or equivalent condition; and
 - Arrange a walk down of the areas with Owner to verify the condition is acceptable.
- 16.4.2 Contractor shall bear the cost and expense of providing the cleanup and removal, including the costs of all labor, supplies, tools, construction equipment, and transportation and such costs are included in the Contract Price.

17.0 COMPLETION REQUIREMENTS

17.1 Construction Turnovers/Construction Releases

17.1.1 This Section not in use.

17.2 Substantial Completion

17.2.1 Contractor shall perform the Work in accordance with the Key Milestones in Section 6.0, including system and/or sub-system construction turnover/construction release (“CTO”) package releases to the Owner to support the Owner’s subsequent activities. Contractor shall provide Owner a completed substantial completion certificate in accordance with this Section 17.2 for the Contract Work in its entirety when:

- Owner can continually occupy and fully utilize the Work for its intended purpose;
- Punch List is accepted by Owner; and,
- Contractor has completed all Priority 1 and 2 Punch List items as defined in Section 17.2.2.

17.2.2 Contractor shall provide a written list of remaining work and known exceptions to Owner prior to performance of the Substantial Completion walk down. Any additional discrepancies noted during walk down will be added to the list which will be turned over to the Owner and will be compiled into a single list (“Punch List”). The Owner will prioritize items on this Punch List in accordance with the following criteria:

- Priority 1 – Resolution required prior to the substantial completion certificate being provided to Owner which are outstanding safety issues or items required to commence checkout testing;
- Priority 2 - Resolution required prior to the substantial completion certificate being provided to Owner for items that allow for proper system/equipment operation, and/or is required by Project specific design or AEP design basis/criteria;
- Priority 3 – All remaining resolutions that are not mandatory in terms of safety (Priority 1) or required for proper operation and performance (Priority 2); and,
- Priority 4 – Items that are identified to be outside the Contractor’s scope of Work. Contractor shall not proceed with Priority 4 punch list items unless Owner has issued a Change Order as outlined in Section 10.2.

17.2.3 Owner agrees that Punch List items that do not impair, impede, or in any way affect the commercial operation of the overall project shall not be the basis for rejecting the Substantial Completion Certificate.

17.2.4 Owner shall within ten (10) calendar days following receipt by Owner of the substantial completion certificate:

- Deliver a signed copy of the substantial completion certificate to Contractor to acknowledge substantial completion has occurred; or,
- State the reasons in sufficient detail as to why the requirements for achieving Substantial Completion have not been satisfied.
- For the purpose of defining the achieved substantial completion date, if Owner accepts Contractor’s Substantial Completion Certificate request, it shall be the date Contractor submitted such certificate.

17.2.5 In the event Owner does not accept and execute the substantial completion certificate presented, Contractor shall undertake steps to satisfy the requirements specified by Owner and shall re-submit substantial completion certificate in accordance with Section 17.2, whereupon the

procedures set forth in this Section shall be repeated. Contractor shall bear the burden of proof, in any proceeding or otherwise, that Punch List items do not impair, impede, or in any way affect the commercial operation of the project.

17.2.6 The parties will agree on a format for the certificate.

17.2.7 Owner's acceptance of the substantial certificate represents the initiation of the Equipment and Workmanship Warranty as outlined in Article 32.0 of the General Terms and Conditions.

17.3 Final Acceptance

17.3.1 Contractor shall provide Owner a duly completed and executed Affidavit of Completion for the contracted Work in its entirety and a Final Acceptance Certificate when:

- All completion requirements have been met and all Work conforms to the provisions of the Contract;
- Contractor has completed all final Site Work and cleanup;
- Contractor has submitted all "as built" documents, manuals, inspection reports, etc., as required; and,
- All outstanding Work issues have been satisfied.

17.3.2 Within ten (10) calendar days following receipt by Owner of the Affidavit of Completion and Final Acceptance Certificate:

- Owner shall execute and deliver a copy of the Final Acceptance Certificate to Contractor to acknowledge Final Acceptance has occurred; or,
- Owner shall state the reasons in sufficient detail as to why the requirements for achieving Final Acceptance have not been satisfied.
- For the purpose of defining the achieved Final Acceptance date, if Owner accepts Contractor's Final Acceptance Certificate, it shall be the date Contractor submitted such request.

17.3.3 Owner's execution of the Final Acceptance Certificate represents Owner's acknowledgement that the Work has been acceptably completed by Contractor.

17.3.4 In the event Owner does not accept and execute the Final Acceptance Certificate presented, Contractor shall undertake steps to satisfy the requirements specified by Owner and shall re-submit the Final Acceptance Certificate in accordance with this Section, whereupon the procedures set forth in this Section shall be repeated.

18.0 IDENTIFICATION OF CONTRACTOR'S EMPLOYEES

18.1 Prior to Contractor starting Work, Owner may require Contractor to comply with a color coding system for Contractor hardhats.

18.2 Owner may also provide numbered badges for Contractor to distribute to its employees. If Owner does provide such badges to Contractor, Contractor shall require its employees and its Subcontractor's employees to wear these badges so that the badges are visible at all times.

- 18.3 Contractor shall require its employees and its Subcontractors' employees to wear hardhats that display Contractor's and its Subcontractor's company emblems and the respective employee's badge number.
- 18.4 Contractor agrees that each time a change in the employment status of its employees or the employees of its Subcontractors occurs, it will submit to Owner an updated list of the names of such employees and their corresponding badge numbers. Contractor shall furnish Owner a copy of all termination slips of its employees or the employees of its Subcontractor that are performing Work at the Site.
- 18.5 At the start of each Work shift, Contractor shall supply to Owner a personnel roster of all Contractors' and its Subcontractors' employees who will be on Site.
- 18.6 Owner may require Contractor to establish a brassing system, using Contractor-supplied brass and brass shack. If Owner does require Contractor to establish a brassing system, then: 1) Contractor shall locate brass shack in an Owner-approved location and 2) Contractor shall give to Owner current and complete information concerning absentees, late arrivals, early departures, and full access to examine Contractor's brass board and associated logs.

19.0 SHOP DRAWINGS

- 19.1 The term "shop drawings" includes the following items furnished by Contractor to explain in detail specific portions of the Work:
- Drawings (design, fabrication, erection), diagrams, layouts and schematics;
 - Equipment data;
 - Calculations;
 - Descriptive literature;
 - Illustrations;
 - Performance and test data;
 - Parts lists;
 - Maintenance manuals;
 - Operations manuals; and,
 - Similar materials.
- 19.2 Contractor shall review all shop drawings for accuracy, completeness and compliance with the Contract requirements; indicate its approval thereon as evidence of such review; and submit the shop drawings to Owner. If Contractor performs any Work prior to receiving Owner's approval or Notice to Proceed, such Work shall be performed by Contractor at its own risk. Owner's approval shall not relieve Contractor from the responsibility for any errors or omissions in shop drawings, or from the responsibility for complying with the requirements of the Contract, except with respect to variations described and approved.
- 19.3 If shop drawings show variations from the Contract requirements, Contractor shall notify Owner in writing of the variations. Such variations shall not be deemed to have been accepted by Owner unless Owner explicitly acknowledges that the variations described by Contractor have been reviewed and Owner indicates "approved in general" or "approved except as noted" on the notice.
- 19.4 Owner may, without restriction, duplicate, use and disclose shop drawings submitted under this Contract.

19.5 Contractor shall submit shop drawings in accordance with Owner's requirements included in Appendix 4.

20.0 DIMENSIONS

20.1 Owner will establish north-south and east-west axis lines and permanent bench mark monuments on these lines. Contractor is responsible for the proper execution of the Work to any such base lines, bench marks and datum systems. Contractor shall check, verify and locate all dimensions, levels, grades and lines from base lines, bench marks, datum systems and the drawings. Contractor shall report any discrepancies to Owner in writing before starting any Work that may be affected by such discrepancies.

20.2 Contractor shall provide its own personnel to perform all layout work necessary for the performance of the Work. Contractor shall, at its expense, furnish all labor and material necessary for the installation of all stakes, lines, templates, patterns or platforms necessary for layout of the Work from the base lines and bench marks. Contractor shall, at its expense, maintain all stakes and other reference marks until the removal is authorized by Owner.

20.3 Contractor shall reimburse Owner for all costs incurred to reestablish reference points or bench marks if, during the performance of the Work, Contractor destroys or moves any Owner established bench marks or reference points.

20.4 Contractor shall notify Owner if specific information necessary for Contractor to lay out its Work has not been supplied by Owner. Under no circumstances shall Contractor proceed on assumption only.

21.0 FINANCIAL SECURITY REQUIREMENTS

21.1 At the discretion of the Owner, Contractor may be asked to provide one or more of the forms of security indicated below at its expense:

- Retention as outlined in Section 11.1.3 of the General Terms and Conditions;
- A parent company or corporate guaranty; and/or,
- An irrevocable Letter of Credit in an amount equal to 10% of the Contract Price. The Letter of Credit must be issued by a US bank or US branch of a foreign bank that is rated at least A- by Standard & Poor's or A3 by Moody's investor service and acceptable to Owner.

21.2 Contractors must demonstrate that they have the financial resources to perform the proposed work; for example, three years of financial statements for their firm and any significant subcontractors, which should include a profit and loss statement, a cash flow statement, and a balance sheet (SEC form 10-K, or equivalent, is acceptable) and most recent Independent Audit Report.

A non-public or non-profit entity shall provide three years of financial statements comparable to the information required above, that allows an assessment of financial status and capability and most recent Independent Audit Report.

In the event a Contractor is forming a new organization to bid on this RFP, the Contractor should provide comparable documents from investors, partners, and/or principals.

Contractors must clearly identify the accounting method that they propose to utilize throughout the term of the Contract.

Contractor must identify if they are venture capital funded. If so, provide the name of the venture capital firm.

21.3 Credit Assurances

If Owner has reasonable grounds to believe that Contractor's creditworthiness or performance under this Contract has become unsatisfactory, Owner will provide Contractor with written notice requesting Performance Assurance in an amount determined by Owner in a commercially reasonable manner. Upon receipt of such notice Contractor shall have three (3) Business Days to remedy the situation by providing such Performance Assurance to Owner. In the event that Contractor fails to provide such Performance Assurance, or other credit assurance acceptable to Owner within three (3) Business Days of receipt of notice, then an Event of Default under Article 27.1 of the General Terms and Conditions will be deemed to have occurred for this Contract.

"Performance Assurance" means collateral in the form of cash, Letter(s) of Credit, or other security acceptable to Owner.

"Letter(s) of Credit" means one or more irrevocable, transferable standby letters of credit issued by a U.S. commercial bank or a foreign bank with a U.S. branch with such bank having a credit rating of at least "A-" from S&P or "A3" from Moody's, in a form acceptable to the Owner in whose favor the letter of credit is issued. Upon the occurrence of a Letter of Credit Default, the Contractor agrees to transfer to the Owner either a substitute Letter of Credit or other security acceptable to Owner, in each case on or before the first Business Day after the occurrence thereof. Failure to comply with this provision shall be deemed an Event of Default under Article 27.1 of the General Terms and Conditions.

"Letter of Credit Default" means with respect to a Letter of Credit, the occurrence of any of the following events: (a) the issuer of such Letter of Credit shall fail to maintain a Credit Rating of at least (i) "A-" by S&P or "A3" by Moody's, if such issuer is rated by both S&P and Moody's, (ii) "A-" by S&P, if such issuer is rated only by S&P, or (iii) "A3" by Moody's, if such issuer is rated only by Moody's; (b) the issuer of the Letter of Credit shall fail to comply with or perform its obligations under such Letter of Credit; (c) the issuer of such Letter of Credit shall disaffirm, disclaim, repudiate or reject, in whole or in part, or challenge the validity of, such Letter of Credit; (d) such Letter of Credit shall expire or terminate, or shall fail or cease to be in full force and effect at any time during the term of the Agreement, in any such case without replacement at least ten (10) Business Days prior to expiration; or (e) the issuer of such Letter of Credit shall become bankrupt; provided, however, that no Letter of Credit Default shall occur or be continuing in any event with respect to a Letter of Credit after the time such Letter of Credit is required to be canceled or returned to a Party in accordance with the terms of this Contract.

"Moody's" means Moody's Investor Services, Inc. or its successor.

"S&P" means the Standard & Poor's Financial Services LLC, or its successor.

Scope of Work FS-LC-0003 Rev. A

APPENDIX 1

**PUBLIC SERVICE OF OKLAHOMA
FORT SILL
NEW GENERATION PROJECT
PV SOLAR WORK**

AMERICAN ELECTRIC POWER

AEP GENERAL TERMS AND CONDITIONS FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION WORK

May 2021 Rev. 0

TABLE OF CONTENTS

<u>ARTICLE NO.</u>	<u>HEADING</u>	<u>PAGE NO.</u>
1.0	DEFINITIONS.....	1
2.0	CONTRACTOR'S OBLIGATIONS.....	2
3.0	TERM AND EFFECTIVE DATE.....	3
4.0	RELATIONSHIP OF THE PARTIES.....	4
5.0	ASSIGNMENT AND SUBCONTRACTING.....	4
6.0	LABOR RELATIONS.....	4
7.0	SAFETY AND HEALTH.....	4
8.0	SECURITY.....	7
9.0	PERSONALLY IDENTIFIABLE INFORMATION (PII).....	8
10.0	EQUIPMENT.....	9
11.0	INSPECTION AND ACCEPTANCE.....	10
12.0	SHIPMENT AND DELIVERY.....	10
13.0	TITLE AND RISK OF LOSS.....	11
14.0	SCHEDULE.....	11
15.0	PRICING.....	11
16.0	TERMS OF PAYMENT.....	12
17.0	CHANGES IN WORK AND EXTRA WORK.....	13
18.0	BACKCHARGES.....	14
19.0	TAXES.....	14
20.0	INSURANCE.....	15
21.0	INDEMNIFICATION	18
22.0	LIMITATION OF LIABILITY.....	19
23.0	LIENS.....	19
24.0	INTELLECTUAL PROPERTY.....	19
25.0	DRAWINGS AND DATA.....	20
26.0	CONFIDENTIALITY.....	20
27.0	DEFAULT.....	21
28.0	DAMAGES FOR DELAY.....	22
29.0	SUSPENSION.....	22
30.0	TERMINATION.....	22
31.0	FORCE MAJEURE.....	23
32.0	EQUIPMENT AND WORKMANSHIP WARRANTY.....	24
33.0	REPORTING OF COMPLAINTS.....	25
34.0	RETENTION AND EXAMINATION OF INFORMATION, BOOKS AND RECORDS.....	25
35.0	COMPLIANCE WITH LAWS.....	25
36.0	PERMITS AND LICENSES.....	26
37.0	NOTICES.....	26
38.0	SEVERABILITY.....	26
39.0	WAIVER.....	26
40.0	NON-DISCLOSURE.....	26
41.0	HEADINGS.....	27
42.0	AFFILIATED COMPANIES.....	27
43.0	APPLICABLE LAWS AND JURISDICTION.....	27
44.0	ENTIRE AGREEMENT.....	27
45.0	BINDING EFFECT; NO THIRD-PARTY BENEFICIARIES.....	27
46.0	EXECUTION; COUNTERPARTS; ELECTRONIC SIGNATURES.....	27
47.0	SURVIVAL.....	28

AFFIDAVIT OF COMPLETION

Exhibit 1

May 2021 Rev. 0

**AEP GENERAL TERMS AND CONDITIONS
FOR ENGINEERING, PROCUREMENT AND CONSTRUCTION WORK**

1.0 DEFINITIONS

Subject to additional definitions contained in subsequent Articles, capitalized terms used in these General Terms and Conditions for Engineering, Procurement and Construction Work have the meanings set forth below:

- 1.1 Business Day: “Business Day” means any calendar day, other than a Saturday or Sunday or a calendar day on which U.S. commercial banking institutions are authorized or required by law to close.
- 1.2 Change Order: “Change Order” means a written order as defined and issued in accordance with Article 17.0.
- 1.3 Confidential Information: “Confidential Information” means any confidential or proprietary information, whether written, oral or visual, whether or not it constitutes a trade secret under applicable law and as set out in Article 26.0.
- 1.4 Contract: “Contract” means collectively the Contracting Instrument and all documents referenced in the Contracting Instrument and any Change Orders, amendments or addenda.
- 1.5 Contract Price: “Contract Price” means the price to be paid to the Contractor for the performance of Work as set forth in the Contracting Instrument.
- 1.6 Contracting Instrument: “Contracting Instrument” means the contractual document that identifies the parties, the nature of the Work, the Contract Price, documents to be included as part of a Contract, and other matters relating to a Contract. The Contracting Instrument may be in the form of a contract letter, work authorization, release, letter of authorization, purchase order or other similar documents.
- 1.7 Contractor: “Contractor” means the entity contracting with Owner for the performance of Work.
- 1.8 Data Protection Law. “Data Protection Law” means any and all data privacy laws applicable to the processing or handling of any Owner data.
- 1.9 Direct Cost: “Direct Cost” means the actual costs and charges incurred and payments made by Contractor, its Subcontractors for Site Equipment, materials, services and labor (including payroll burden and expenses) which are directly attributable to the performance of Contractor’s Work hereunder. Direct Cost includes Contractor’s home office or Site labor to the extent Contractor’s home office or Site labor is directly assignable to the Work which must be demonstrable under the circumstances. Direct Cost shall not include corporate, general and administrative costs including sales, marketing, accounting, human resources, information technology, payroll, profit, research, development, quality assurance and control, purchasing, safety, management, administration, warranties, insurances, offsite or other unabsorbed costs.
- 1.10 Equipment: “Equipment” means all goods, materials and accessories to be purchased under the Contract, including all documentation required by the Contract.
- 1.11 Extra Work: “Extra Work” means work that is beyond Contractor’s scope of Work under the Contract.
- 1.12 Final Acceptance: “Final Acceptance” means Owner’s determination that the Work has been completed in accordance with the Contract requirements.
- 1.13 Force Majeure Event: “Force Majeure Event” shall have the meaning set out in Article 31.0.

- 1.14 Initial Acceptance: “Initial Acceptance” means Owner’s determination prior to final inspection and testing that the Work conforms to the Contract requirements for purposes of receipt.
- 1.15 Owner: “Owner” means any one or more of the companies of the American Electric Power System as may be specified in the Contracting Instrument.
- 1.16 Owner’s Equipment: “Owner’s Equipment” means Owner’s tools, vehicles, materials or equipment.
- 1.17 Personally Identifiable Information: “Personally Identifiable Information” or “PII” means an individual’s first name or first initial, and last name, in combination with any one or more of the following data elements, when either the name or the data elements are not encrypted: Social Security number; driver’s license number; state or Federal government issued ID (in lieu of a driver’s license); credit card number; passport number; biometric data (such as, fingerprints, voiceprints, retina or iris images); and/or bank account or debit card number, along with any required security or password required for access. Personally Identifiable Information shall also have the meaning attributed to it under any applicable Data Protection Law in any relevant jurisdiction.
- 1.18 Site: “Site” means Owner’s property or such other premises (including adjacent bodies of water and property owned or controlled by a third-party) upon which the Work is to be performed.
- 1.19 Subcontractor: “Subcontractor” means vendors, suppliers, consultants, and subcontractors of any tier, materialmen, professionals, laborers, and all other persons providing equipment, materials or services directly or indirectly to Contractor in connection with the Work.
- 1.20 Work: “Work” means all of Contractor’s obligations under the Contract.

2.0 CONTRACTOR’S OBLIGATIONS

- 2.1 Contractor shall, at its expense, provide everything necessary for the complete, proper and timely execution of the Work including, but not limited to, home office support, labor, supervision, and technical field assistance; engineering, design, construction and start-up services; safety equipment, construction equipment, temporary utilities and facilities, equipment to be installed, materials, tools and supplies; fabrication and manufacturing; transportation; drawings and documentation, unless explicitly excluded in the Contract. Contractor’s performance of the Work shall include everything requisite and necessary to comply with prudent electric utility industry standards and to complete the Work, notwithstanding the fact that every item necessarily involved may not be specifically mentioned. Details and items not indicated by the Contract documents shall be adequately and properly performed by Contractor at no extra cost if such details and items are necessary to complete the intent of the Contract or otherwise to complete the Work.
- 2.2 Contractor is responsible for considering the conditions affecting the Work including, but not limited to, conditions affecting the transportation, disposal, handling and storage of materials; the availability and cost of labor, water, electric power, utilities, and roads; the uncertainties of weather, river stages, and similar physical conditions at the Site; the conformation and condition of the ground; and the character of equipment and facilities needed. Contractor shall take into account the character, quality and quantity of surface and subsurface materials or obstacles to be encountered to the extent this information is reasonably ascertainable from the Contract documents or an inspection of the Site.
- 2.3 Contractor shall immediately, and before such conditions are disturbed, notify Owner of: (a) subsurface or latent physical conditions at the Site which differ materially from those indicated in the Contract; (b) unusual geologic conditions at the Site which differ materially from conditions ordinarily encountered or from conditions addressed in the Contract; or (c) artifacts or articles which appear to have archaeological or historical significance. Owner shall promptly investigate such conditions and, if such conditions do materially differ and cause an increase or decrease in Contractor’s cost of, or the time

required for, performance of any part of the Work, the parties shall agree to amend the Contract. No claim of Contractor under this clause shall be allowed unless Contractor has given immediate notice as required above and confirmed such notice in writing within ten (10) calendar days of discovery.

- 2.4 Contractor shall have a designated representative at the Site with whom Owner may communicate, when Work is being performed.
- 2.5 Contractor shall assign qualified and competent supervision and personnel to perform the Work and have qualified and competent supervision at the Site at all times to direct and observe the Work. Key personnel shall not be removed or replaced without prior consent of Owner which shall not be unreasonably withheld. Contractor will investigate and take appropriate action with respect to any personnel problems brought to its attention by Owner.
- 2.6 Contractor shall confine all of its operations and personnel to those areas of the Site to which Owner authorizes access.
- 2.7 Contractor's personnel may not operate Owner's Equipment without Owner's prior authorization. If Contractor borrows Owner's Equipment, Contractor (a) agrees that Owner has provided the Owner's Equipment AS IS, with no representations or warranties; (b) assumes full responsibility for the protection of the borrowed Owner's Equipment; (c) assumes all liability for injuries or damages resulting from the use of the borrowed Owner's Equipment; and (d) agrees to return the borrowed Owner's Equipment to Owner in the same condition as when it was borrowed, or, if repairs are necessary, to cause such repairs to be performed promptly at Contractor's expense before the Owner's Equipment is returned to Owner. Owner has no obligation to lend Owner's Equipment to Contractor.
- 2.8 Contractor shall cooperate with Owner and others working at or near the Site. Contractor shall promptly report to Owner any defects in the work of others which affects the Work. Failure to report such defects constitutes acceptance of the conditions by Contractor. Contractor shall properly fit, connect and coordinate its Work with that of Owner and other contractors.
- 2.9 Contractor shall keep all of its work areas free from trash and debris on a continuous basis.
- 2.10 Contractor shall secure and protect its materials, tools, equipment and the Work, including Owner's Equipment.
- 2.11 As requested by Owner, Contractor shall provide Owner with periodic reports concerning the progress of the Work.
- 2.12 Contractor is responsible for the proper execution of the Work with respect to any base lines and bench marks established by Owner.
- 2.13 If the Work is subject to prevailing wage requirements, Contractor agrees to comply with such requirements.
- 2.14 Contractor, its Subcontractors, and their respective employees and agents involved in the Work shall adhere to the provisions contained in AEP's Supplier Code of Conduct which can be found at AEP's website.

3.0 TERM AND EFFECTIVE DATE

- 3.1 The Contract shall commence as of the effective date and, unless earlier terminated as provided in Article 30.0, shall terminate on the termination date set forth in the Contract. Unless specified elsewhere in the Contract, the effective date of the Contract shall be the earlier of the date on which Contractor begins performance hereunder or the date of the latter signature on the Contract.

4.0 RELATIONSHIP OF THE PARTIES

4.1 Contractor and all of its employees and Subcontractors are, with respect to Owner, independent contractors. Contractor will be solely responsible for the supervision, direction, and control of its employees and Subcontractors. Contractor is responsible for the payment of all compensation, benefits, and employment taxes with respect to the Contractor's employees.

5.0 ASSIGNMENT AND SUBCONTRACTING

5.1 Contractor shall not assign or otherwise dispose of the Contract, or any obligations hereunder, without the written consent of Owner. Any assignment or disposal without the written consent of Owner shall be null and void.

5.2 Prior to entering into any subcontract and upon request by Owner, Contractor shall submit to Owner a subcontractor data sheet that includes the name and address of the Subcontractor and the scope of work proposed to be included under such subcontract. Within five (5) Business Days of receipt of a Subcontractor data sheet, Owner may reject such Subcontractor without cost or contract extension by giving written notice of such rejection to Contractor.

5.3 Contractor is responsible for the selection of any Subcontractor and for the Subcontractor's proper performance of the Work assigned to it. If the work of a Subcontractor is not in compliance with the Contract requirements, Contractor shall take immediate steps to bring the Subcontractor's Work into compliance and, at Owner's written request, terminate its contractual relationship with the Subcontractor as it relates to the Work at no cost to Owner.

6.0 LABOR RELATIONS

6.1 Contractor shall comply with any project, national, state or local labor laws, requirements or agreements that are applicable to the Work or Site. Contractor shall cooperate with Owner and other contractors in establishing and maintaining labor work rules and practices.

6.2 If the Work is performed by building and construction trades, labor, a pre-job conference shall be held with local labor representatives prior to starting Work. Contractor shall inform Owner of such pre-job conferences, whereupon Owner may elect to participate in and attend.

6.3 Contractor shall provide immediate notice to Owner of any actual, or potential labor dispute that may affect timely, efficient and productive performance of the Work.

6.4 Contractor shall exercise its management rights contained in applicable labor agreements to establish, maintain, and enforce work rules conducive to timely, efficient, productive and harmonious work operation. Contractor shall take the necessary steps available to resolve grievances, jurisdictional disputes, or other violations of collective bargaining agreements.

7.0 SAFETY AND HEALTH

7.1 Contractor shall perform the Work in a safe and careful manner, provide first aid facilities and transportation, and use such safety and health devices and methods as are necessary to protect its employees, agents, Subcontractors, Owner's employees and agents, other contractors and the public from bodily injury and property damage.

7.2 Contractor shall comply with and enforce all laws, rules and regulations applicable to safety and health standards, including, but not limited to, the Occupational Safety and Health Act of 1970 (OSHA) and any revisions of OSHA or successor legislation.

- 7.3 Contractor shall comply with project and Site safety and security rules, any supplemental safety and health terms and conditions specific to the Owner business unit for which the Work is performed, and all procedures issued by Owner, provided that such rules and procedures do not conflict with OSHA or other safety laws, rules or regulations. Contractor shall assign a competent person at all times to manage, coordinate and enforce its safety and health program during performance of the Work.
- 7.4 Contractor shall have Safety Data Sheets (SDS) available for Owner review for all applicable materials delivered to Owner's Site.
- 7.5 Contractor shall obtain Site permits or approval from Owner for its vehicles, any excavation, use of explosives, access to restricted areas, use of Owner's Equipment, tools and facilities, and other similar activities.
- 7.6 Owner will arrange all necessary clearances on energized equipment, electrical and communications circuits, piping systems or other operational equipment. Contractor shall notify Owner requesting the clearances prior to the scheduling of such Work. Contractor shall comply with Owner's switching and tagging policy for Owner's transmission and distribution business units or Owner's clearance permit policy for its generation business units regarding tag-out or lockout of electrical and mechanical systems and other equipment.
- 7.7 Contractor shall fully inform Owner in writing regarding the types, quantities and use of any hazardous materials to be brought on the Site prior to delivery of the materials; the types and quantities of hazardous wastes being generated from the Work; and Contractor's program for proper storing, handling and disposal of such materials in a safe and secure manner.
- 7.8 Contractor shall immediately inform Owner of all regulatory safety, health, industrial hygiene and environmental inspections, citations, events and penalties associated with the Work. Contractor shall review with Owner any written response and attachments to the response 24 hours prior to submittal to regulatory agencies and insurance companies. Contractor shall provide Owner copies of all written reports and documents submitted by Contractor to, or received by Contractor from, regulatory agencies and insurance companies concerning the Work.
- 7.9 Contractor shall promptly inform Owner of any injuries to its employees, agents, Subcontractors, or other persons arising out of the Work that require medical treatment.
- 7.10 Contractor shall obtain, maintain, and properly complete all record keeping required by regulatory agencies. Upon request, Contractor shall provide Owner with copies of all logs, reports and other records.
- 7.11 Contractor shall investigate all accidents resulting in personal injury, property damage, or near misses, within 24 hours of the accident, to determine root causes of the accident and to take corrective actions to prevent future accidents. If an injury or illness event is involved, Contractor shall submit a preliminary report to Owner before 8:00 AM Eastern Time the next day. Based on the actual or potential severity of the event, Owner may choose to participate in the investigation or require Contractor to form an investigative team. Contractor's most senior representative on Site where the event took place or above shall conduct or lead the investigation of such event. The immediate supervisor of the most senior representative on Site shall not serve on the investigative team. Contractor shall provide Owner with a copy of investigative reports, including all documents submitted to insurance companies, within 48 hours of the event unless granted an extension by Owner. Notwithstanding Contractor's obligation as specified herein, Owner reserves the right to conduct its own independent investigation with support or input from Contractor as requested by Owner.
- 7.12 Contractor's employees, agents, Subcontractors, vehicles, trailers, and other equipment entering or leaving any Owner Site may be subject to an inspection by Owner at any time.

- 7.13 If, in Owner's sole discretion, a safety and health violation or other unsafe condition causes imminent danger, Owner may immediately shut down the Work involved without advance written notice to Contractor.
- 7.14 Contractor and all Subcontractors performing Work at the Site must have a substance abuse program and ensure that all personnel are "drug free". The substance abuse program must apply to all personnel performing Work at the Site and be administered by an independent third party certified for substance abuse testing. Minimum requirements of Contractor's or Subcontractor's program shall include pre-hire testing, testing for cause (upon reasonable suspicion) and if requested, random testing.

Except when performing Work for Owner's Generation business units [See Supplemental Safety Terms and Conditions Generation Appendix], the Contractor's or Subcontractor's drug testing program shall screen for the below listed substances at the current cutoff limits established by the U.S. Department of Health and Human Services, as updated from time to time. When performing Work for Owner's generation business units, Contractor's or Subcontractor's drug testing program shall follow the requirements as stated in the Generation Appendix to the AEP Supplemental Safety Terms and Conditions.

MARIJUANA

- THC
- Marijuana metabolites

COCAINE

- Benzoylcegonine
- Cocaine metabolites

AMPHETMINES

- Amphetamines
- Methamphetamines
- MDMA (ecstasy)
- MDA
- MDEA

OPIOIDS (PREVIOUSLY KNOWN AS OPIATES)

- Opium
- Codeine
- Morphine
- 6-AM (Heroin)
- Hydrocodone
- Oxycodone
- Hydromorphone
- Oxymorphone

PHENCYCLIDINE

- Also known as PCP

- 7.15 Except if stated otherwise in the Supplemental Safety Terms and Conditions, the drug testing laboratory shall be certified by Department of Health & Human Services under the National Laboratory Certification Program. Initial testing will be through immunoassay analysis and any confirmation by gas chromatograph/mass spectrometry (GC/MS). Alcohol testing shall be administered by either screening test technicians (STT) or breath alcohol technicians (BAT). Initial testing can be through saliva or breath tube alcohol screening device (ASD). All confirmatory tests shall be by evidential breath measurement device (EBT) and only by a BAT.

- 7.16 Contractor's and Subcontractor's personnel must provide evidence of having tested negative within one year prior to employment. Owner will accept conditional employment predicated upon (a) employee(s) furnishing evidence that they have submitted to testing within forty-eight (48) hours of initial employment (b) employee(s) furnishing evidence of negative test results within five (5) calendar days of initial employment and (c) Owner can recognize Contractor's employees who are part of a sanctioned drug and alcohol testing program that contains random testing of the population at least at the government prescribed levels (CDL, Coast Guard). Owner reserves the right to examine evidence outlined herein. Contractor's program shall incorporate reciprocity on "drug free" employee verification to minimize Owner's economic impact and employee recertification while maintaining the program's intent.

8.0 SECURITY

- 8.1 For purposes of this Article, "individual(s)" means Contractor or Subcontractor personnel designated by Contractor or Subcontractor to perform Work, or is performing Work on behalf of Contractor, for Owner under this Contract.
- 8.2 Owner's specific requirements of background investigations for individuals include the following:
- 8.2.1 Determination of whether an individual has been convicted of a felony crime in each state where the individual has resided during the past seven years;
 - 8.2.2 Performance of the background investigation at the state level (in other words, to only search the records of the county in which the individual has resided during the past seven years is not a sufficient background investigation);
 - 8.2.3 Determination of whether an individual has been convicted of a felony in federal court during the past seven years; and
 - 8.2.4 If the individual is to operate a motor vehicle while performing Work for Owner, then a state operator's license abstract must be completed in the states where the individual has been licensed as a vehicle operator during the past seven years.
- 8.3 Contractor shall ensure that background investigations meeting the above criteria are completed before any individuals begin Work under the Contract, whether brought on at the outset of a Contract or at any other point in the Contract term.
- 8.4 If Contractor's internal background investigation process deviates from the requirements of this Article, Contractor may submit to Owner a copy or description of its background investigation policies and procedures for Owner's review and file. If Owner, in its sole discretion, determines that Contractor's background investigations do not meet the requirements in Section 8.2, then Contractor, at its expense shall perform a background investigation that does meet such requirements on each individual. If Contractor fails to perform such background investigations on such individuals, then Owner reserves the right to conduct a background investigation on said individuals at Contractor's expense.
- 8.5 If any background investigation performed by Contractor, Contractor's Subcontractors, or Owner reveals or indicates that an individual has been convicted of a felony crime, then Contractor shall notify Owner prior to the individual commencing or continuing Work. Owner in its sole discretion shall have the option of barring from any Work Site any individual who has a reported felony conviction.
- 8.6 If an individual requires unescorted access to Owner's critical cyber assets, then Owner may conduct its own background investigation, which will include a Social Security Number verification. Additional specific provisions or requirements related to any Owner conducted background investigation pursuant to this Article will be communicated to Contractor prior to implementation of such background investigation.

- 8.7 Contractor shall not perform any screening activities that violate the federal Fair Credit Reporting Act, Title VII of the Civil Rights Act of 1964 or any other applicable law in any circumstances. Contractor shall ensure that the substance and manner of any and all background investigations performed by Contractor conform fully to applicable law.
- 8.8 Owner may audit or review specific Contractor background investigation screening files to ensure compliance with the Contract.

9.0 PERSONALLY IDENTIFIABLE INFORMATION (PII)

- 9.1 Contractor recognizes that information security and protection of personal identifying information is of paramount importance to Owner and that Owner is engaging Contractor to provide the Work without harm to PII or Owner's information technology infrastructure generally. To the extent that Work under the Contract requires Contractor to be given access to PII gathered or maintained by or on behalf of Owner, or in the event Contractor acquires access to or encounters any PII during performance of the Work, Contractor shall after receipt thereof, treat such PII as confidential and safeguard such PII from unauthorized use and disclosure.
- 9.2 Contractor agrees that all Owner PII remains the sole and exclusive property of Owner, and Contractor obtains no right, title or interest therein whatsoever, except for a temporary and limited license to use Owner PII to perform only the Work for Owner pursuant to the Contract. Contractor will at all times comply with Owner's instructions with respect to any processing of PII and not make any use of PII for its own purposes, including but not limited to Contractor's own commercial purposes regardless of whether the PII is converted to anonymized or aggregated format.
- 9.3 Upon request of Owner, Contractor shall have its employees execute a confidentiality agreement protecting PII. Contractor agrees not to appropriate such PII for its own use or to disclose such PII to third parties unless specifically authorized by Owner in writing. Contractor shall ensure that its employees will not discuss, divulge or disclose any such PII to any person or entity except those persons directly concerned with and only to the extent necessary to complete the performance of the Work. Contractor shall access, use and process PII and other data on behalf of Owner only for the purposes specified in the Contract.
- 9.4 Upon Owner's written request, Contractor shall promptly and accurately complete a written information questionnaire provided by Owner, or a third party on Owner's behalf, regarding Contractor's business practices and information technology environment in relation to all PII being handled and Work provided by Contractor to Owner pursuant to this Contract.
- 9.5 Contractor shall comply with (i) NERC Reliability Standards as applicable, including without limitation, those relating to Critical Infrastructure Protection, (ii) Owner's security standards, and (iii) such further instructions as Owner may provide regarding the processing of such PII. Contractor shall inform Owner promptly if it has reason to believe that applicable law (or changes in applicable law) prevents Contractor from fulfilling the obligations relating to treatment of PII or other data under Owner's security standards and/or the Contract.
- 9.6 To the extent permitted by law, Contractor shall notify Owner promptly and act only upon Owner's instruction concerning: (a) any request for disclosure of PII or other data by law enforcement or other governmental authority; (b) any request by law enforcement or other governmental authority for information concerning the processing of PII or other data in connection with the Contract; or (c) any request received directly from an individual concerning his/her PII.
- 9.7 Contractor may not store PII on computers, mobile devices, including but not limited to cellular telephones and personal digital assistants, servers and storage devices including removable media (any of which, hereinafter known as a "Computer"), unless required for the performance of Work. Any such

information shall be deleted from a Computer, in a manner that ensures that it cannot be accessed or read, as soon as such storage is no longer required for the performance of Work.

- 9.8 Upon termination of the Contract or upon Owner's request, Contractor shall promptly and no later than five (5) Business Days after Owner's written request (a) return all PII in written form to Owner, and (b) delete all PII in Contractor's possession or control (on computer or in whatever other form or media) in a manner that ensures that this information cannot be accessed or read. If requested by Owner, Contractor shall provide written acknowledgment and/or other relevant proof requested of such destruction.
- 9.9 Contractor shall administer a monitoring process to ensure compliance with this Article and the related subsections hereof, promptly report any breaches to Owner, and implement immediate, appropriate corrective actions to contain and prevent recurrence. Contractor shall report to Owner immediately upon discovery of a real or suspected loss of PII, even if all facts surrounding such loss are not immediately discerned by Contractor. In the event of a breach of this provision or the occurrence of any other event regarding PII that requires notification under applicable law, Contractor agrees to assume responsibility for informing all such individuals in accordance with all applicable Data Privacy Laws. Contractor shall, however, provide copies of any and all notifications to be issued to Owner for Owner's consent prior to notification being provided to the impacted parties.
- 9.10 In addition to any remedy available to Owner under the Contract, Contractor acknowledges that any breach of this Article by Contractor or its Subcontractors may subject Contractor to civil and criminal penalties. Contractor shall include the full text of this Article in all appropriate subcontracts. However, including such provision in the subcontracts shall not relieve Contractor of its obligation to ensure compliance with the provisions of this Article.
- 9.11 Contractor shall indemnify save Owner harmless from any and all claims, fines, costs, or expenses arising out of or in connection with a breach of this Article, a breach of Data Protection Laws, or any security incident caused or permitted by Contractor.
- 9.12 Owner's expenses may include, without limitation, Owner's remedy costs including; the cost of Owner's investigation, Owner's costs relating to preparation of notices, Owner's costs to remedy harm to impacted individuals, and Owner's costs to remedy from loss or use or disruption of operations or services. Notwithstanding anything to the contrary in the Contract, Owner's foregoing indemnification obligations under this provision shall not be subject to any limitations on liability, damages or disclaimers, elsewhere in the Contract.
- 10.0 EQUIPMENT
- 10.1 All Equipment shall be new and meet the requirements of all applicable codes. Equipment which will not become a part of the permanent installation is not required to be new. Owner reserves the right to reject Equipment which has not been previously used but which has been in storage for an unreasonable period of time. Title to the Equipment shall be free and clear of all liens and encumbrances. Title to Equipment shall pass to the company identified as Owner in the Contracting Instrument.
- 10.2 Contractor shall not substitute Equipment specified in the Contract unless authorized by Owner in writing. Unless substitution has been so authorized, Contractor shall, at its expense, remove and replace any improperly substituted Equipment.
- 10.3 Upon Owner's request, Contractor shall, at its expense, submit to Owner samples of Contractor-furnished Equipment. Contractor must obtain Owner's written approval before performing Work involving the use of Equipment for which samples have been requested. Approval by Owner shall not relieve Contractor from responsibility for complying with the requirements of the Contract and all applicable codes. Equipment used shall conform to the approved samples. Contractor shall remove and replace nonconforming Equipment at its expense.

11.0 INSPECTION AND ACCEPTANCE

- 11.1 Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the Work performed conforms to the Contract requirements. Owner reserves the right to review and approve the adequacy of Contractor's inspection system. Contractor shall provide all quality control and quality assurance program information requested by Owner.
- 11.2 Owner shall have free access to the Work for inspection purposes. Owner's inspectors and expeditors shall be admitted at all reasonable times to the shops of Contractor and its Subcontractors for inspection purposes. Owner's inspection, receipt or Initial Acceptance of the Work shall not relieve Contractor of its obligation to comply with the terms of the Contract.
- 11.3 Each party shall bear its own expenses in performing inspections, except that (a) Owner may use Contractor's facilities, ladders and scaffolds to perform inspections of the Work; (b) Contractor shall pay Owner's expenses in re-inspecting Work which was rejected as non-conforming to the Contract requirements in an earlier inspection; (c) Contractor shall pay the costs of uncovering and re-covering Work for Owner's inspection if Contractor failed to give Owner reasonable notice that the Work was ready to be covered; and (d) prior to Final Acceptance, if Owner requests an inspection of Work already completed which requires removing and tearing out Work, and the Work is found to be materially defective, Contractor shall pay the expenses of inspection and reconstruction, but if the Work is found to be in conformance with the Contract requirements, Owner shall pay the expenses of inspection and reconstruction.
- 11.4 Owner will not pay for defective Work. Contractor shall repair or replace all defective Work at its expense. Contractor shall promptly remove from the Site any Equipment that does not comply with the requirements of the Contract. If Owner's Equipment has been used in any defective Work, the cost of such Owner's Equipment shall be backcharged to Contractor.
- 11.5 Contractor shall, at its expense, furnish to Owner certificates of shop inspection as required by laws or regulations, or by the National Board of Fire Underwriters, or by any company insuring the Equipment for the benefit of Owner.
- 11.6 Owner shall have the right to take possession of or use any part of the Work. Owner's possession or use shall not constitute Initial Acceptance or Final Acceptance of the Work.
- 11.7 Contractor shall make all production and shop tests at its expense. Owner shall have the right to have a representative present at such tests, including those at Contractor's suppliers' shops, and notice shall be given to Owner at least two weeks prior to any scheduled test. Contractor shall give Owner copies of certified test results promptly upon request.
- 11.8 Unless otherwise provided in the Contract, Final Acceptance by Owner shall be made as soon as practicable after all Work has been completed and inspected. Any part of the Work not rejected by Owner following final inspection shall be deemed to have achieved Final Acceptance.

12.0 SHIPMENT AND DELIVERY

- 12.1 Contractor shall coordinate shipment so that Equipment arrives at the Site on schedule and during Site receiving hours. Contractor shall provide shipping notices to Owner prior to shipment of the Equipment. Owner's storeroom at the Site where the Equipment is to be delivered shall be notified at least 48 hours in advance of the arrival of the Equipment, or as required by the Contract. Notification to Owner's storeroom and all shipping notices shall include special unloading and storage directions and a list of equipment required to unload the Equipment.
- 12.1.1 Contractor shall provide a complete bill of materials for each separate shipment. Every part that is not preassembled shall be identified on the bill of materials.

12.1.2 Contractor must attach metal tags with corrosion resistant tie wire, and waterproof markings and labels, to each piece and package, making reference to the bill of materials and Contract number.

12.1.3 Owner reserves the right to refuse shipments that do not contain proper markings, bills of materials, or for which proper shipping notices were not received. The return and redelivery will be at Contractor's expense.

12.2 Contractor shall deliver all Equipment F.O.B. Site, with freight prepaid and included in the Contract price.

13.0 TITLE AND RISK OF LOSS

13.1 Title and risk of loss shall pass to Owner upon Final Acceptance of the Work. Contractor agrees that title shall vest in Owner free and clear of all liens and encumbrances. If the Work is rejected as non-conforming, title and risk of loss shall remain with Contractor.

13.2 If the Work requires warranty work, title shall remain at all times with Owner, except that if the Work is replaced rather than repaired, Owner's title shall vest in the replacement Work.

13.3 If any part of the Work requires warranty work at Contractor's facility or any other off-Site location, risk of loss to that part of the Work shall pass to Contractor upon delivery by Owner of that part of the Work to a common carrier. Risk of loss to that part of the Work shall pass back to Owner upon delivery to Owner, installation at the Site and successful acceptance testing of the repaired or replaced Work.

14.0 SCHEDULE

14.1 Contractor shall perform the Work to meet the schedule date(s) set forth in the Contract documents. Contractor shall not commence Work until authorized by Owner to do so.

14.2 In a format acceptable to Owner, Contractor shall develop, update, maintain and provide to Owner a written schedule for execution of the Work. The schedule shall be time scaled, complete, and accurate in detail depicting Contract milestone dates, work activities and durations. Upon review and approval by Owner, this schedule shall become the Contract schedule. Updates to the Contract schedule shall be provided to Owner on at least a monthly basis. Updates shall depict actual progress measured against planned progress.

14.3 Contractor shall notify Owner within 24 hours of the first knowledge that any completion date(s) will not be met and shall, within five (5) Business Days thereafter, submit a detailed program depicting the plans and actions being taken to regain the lost time. The notice shall not limit any other rights or remedies afforded Owner under the Contract or by law.

15.0 PRICING

15.1 Contract Price. Owner shall pay the Contract Price set forth in the applicable Contracting Instrument. The parties may agree to price the Work, portions of the Work, or changes to the Work under the Contracting Instrument on a fixed price, time and material price, unit price, or cost plus basis or any other method deemed acceptable to the Owner.

15.2 Fixed Price Basis. If Contractor performs the Work for a fixed price, the total Contract Price for the Work will be the amount set out in the applicable Contracting Instrument. Such amount is inclusive of the cost of all Work.

15.3 Time and Materials. If Contractor performs the Work on a time and materials basis: the pricing payable for the Work will be calculated in accordance with Contractor's rates as set forth in Exhibit B to the Contract or in the applicable Contracting Instrument.

- 15.4 Unit Price Basis. If the Work is performed on a unit price basis, the pricing payable for the Work will be calculated in accordance with Contractor's unit pricing rates as set forth in Exhibit B or in the applicable Contracting Instrument.
- 15.5 Cost Plus Work. If the Contractor performs the Work on a cost plus basis, Contractor shall calculate rates for any cost-plus Work in the following manner:
- 15.5.1 Contractor's direct labor costs will be reimbursed at the actual payroll costs of direct labor wages, fringe benefits, payroll taxes and insurance required by collective bargaining agreements or by law, plus an agreed wage mark-up. Copies of certified payrolls and time sheets shall be provided to Owner for review and approval. Social security, unemployment, workers' compensation, or other federal, state or local taxes or insurance shall be reimbursed by Owner, but only at rates which do not exceed Contractor's actual costs. If requested by Owner, Contractor shall reconcile invoiced payroll taxes and insurance to actual cost, and submit the results to Owner within 30 days.
 - 15.5.2 Owner will pay Contractor actual invoice costs plus an agreed mark-up for subcontracted Work, provided Owner has approved payment terms in advance of performing the Work.
 - 15.5.3 Contractor-furnished Equipment costs will be reimbursed at actual invoice costs plus an agreed markup.
 - 15.5.4 Construction equipment costs will be reimbursed based on actual usage time during the performance of Work and established rental rates not to exceed monthly rates set forth in the "Rental Rate Blue Book for Construction Equipment" adjusted for geographical region as published by Dataquest or other basis acceptable to Owner. Hourly rates shall be established by taking the monthly rate divided by 176 hours per month.
 - 15.5.5 Small tools and consumables costs will be reimbursed based on agreed rates.
 - 15.5.6 Field supervision, clerical, safety and other non-direct labor costs will be reimbursed at agreed billing rates, except that reimbursement for these costs for cost plus extra work shall require the prior review and approval of Owner.
 - 15.5.7 Project management, engineering, design, procurement, and other home office services will be reimbursed at billing rates contained in the Contract.

16.0 TERMS OF PAYMENT

- 16.1 Except as otherwise provided in the Contract, the following terms of payment shall apply:
- 16.1.1 The Contract Price set forth in the Contract or applicable Contracting Instrument shall constitute full and complete payment for all Work.
 - 16.1.2 Contractor shall submit invoices with proper documentation to Owner for the Work completed or for milestones achieved during the prior month. Owner may withhold all or any part of payment in an amount necessary to protect Owner from loss due to the occurrence, or imminent occurrence, of (i) Contractor's breach or failure to perform in accordance with the Contract, (ii) defective Work, (iii) Contractor's failure to pay any Subcontractor, (iv) other claims by Owner against Contractor, including indemnity claims, and (v) damages for delay or any agreed upon liquidated damages.

16.1.3 Owner shall pay 90% of each properly submitted and accepted invoice within forty-five (45) days of receipt. The release of retention shall become due and payable forty-five (45) days after the date of Final Acceptance of the Work.

16.1.4 Each invoice shall contain a statement that all bills for material and labor relating to the Work have been paid in full by Contractor, and there are no unpaid bills for which a lien could be filed. If requested by Owner, Contractor shall provide evidence of such payments. The final invoice for the Work shall be accompanied by a satisfactorily completed Affidavit of Completion in the form attached as Exhibit 1. Payment of the final invoice and retention constitutes a full and final release of Owner from all claims, damages, liabilities and obligations under the Contract.

16.2 Contractor shall promptly pay all of its Subcontractors.

17.0 CHANGES IN WORK AND EXTRA WORK

17.1 Change in Work

17.1.1 “Change Order” means a written order issued to the Contractor after execution of the Contract Letter or execution of the applicable Contracting Instrument authorizing the performance of the Work documenting an addition to, deletion from, or other modification to the Work, including a change in the scope of Work, the Contract Price, the payment schedule, the completion dates, or the schedule for the Work.

17.1.2 Owner may issue a Change Order: (i) at Owner’s option, or (ii) if requested by Contractor due to the occurrence of an event that entitles Contractor to a Change Order as determined by Owner.

17.1.3 If Owner issues a Change Order, Contractor shall perform the changed Work in accordance with the terms of the Contract and the issued Change Order.

17.1.4 No order, statement or other conduct of Owner shall be treated as a change in Work until such change is authorized in writing by Owner.

17.1.5 The costs or credit to Owner resulting from a change in the Work shall be determined in accordance with the pricing methodology from Article 15.0.

17.1.6 Contractor shall not be entitled to a Change Order for conditions such as, but not limited to, (i) work which is of such a nature as to be normally included in the Work or is reasonably inferable from the Contract; (ii) any errors, omissions, non-performance, negligence, deficiencies or improper or defective work on the part of Contractor (including miscalculations, incorrect estimates, or other errors in Contractor’s proposal for the Work); (iii) changes relating to refinement, minor correction and detailing of the Work or any part of the Contract; or (iv) other unallowable claims such as cost impacts not due to Owner and cumulative impact claims.

17.1.7 With respect to Contractor claims for additional compensation, Owner shall pay for only the costs directly associated with the proposed changes and only to the extent that Contractor can demonstrate that the changes actually increased its costs of performance. Any claims for additional compensation based on a change to the Work or extra work must be material in nature, and Contractor must provide full documentation supporting all elements of such claims. For a reduction in the scope of Work or a change which reduces Contractor’s costs, the Contract Price shall be adjusted downward. The payment for changes to the Work shall be complete compensation to Contractor for performing such changes, including any schedule or cost impacts on the Work.

17.1.8 If Owner requests in writing that Contractor furnish materials or Equipment to be permanently incorporated in changed work, Extra Work or cost-plus work, Owner shall reimburse Contractor for such materials or Equipment at rates included in the Contract or applicable Contracting Instrument for such materials or Equipment or at its incremental actual cost to Contractor plus a percentage mark-up to be agreed upon by the parties. Requests for payment for materials and Equipment shall be accompanied by copies of receipted invoices. Owner has the right to audit Contractor's requests for changes and the financial basis therefor.

17.1.9 If Contractor and Owner disagree on whether any particular work is within the scope of Work and such work must be completed to ensure timely progress, Owner will issue a disputed Change Order to cover the disputed work. Contractor shall diligently proceed with the disputed work. By noon on the work day following performance of the disputed work, Contractor shall submit to Owner for review timesheets itemizing all labor and equipment hours expended on the disputed work and an itemized listing of Contractor furnished materials. Such review is not an admission of liability by Owner. Prior to Final Acceptance, each disputed Change Order will be resolved to the mutual agreement of the parties.

17.2 Extra Work

17.2.1 At Owner's request, Contractor shall perform Extra Work at the applicable unit prices, time and material rates, fixed price or cost-plus mark-up rates in the Contract. If the Contract rates are not applicable to the type of Extra Work to be performed, Contractor shall promptly submit a proposal to perform the Extra Work, which proposal shall become an amendment to the Contract upon written acceptance by Owner. If Owner directs Contractor to perform Extra Work on an overtime basis, Owner shall reimburse Contractor at the rates for overtime Work in the Contract. Contractor shall invoice and maintain separate cost records for each Extra Work authorization issued by Owner.

17.2.2 If Owner elects, Contractor shall perform Extra Work on a cost-plus basis. Cost-plus rates for Extra Work shall be paid in accordance with Article 15.0.

17.3 Contractor waives all claims for additional compensation for changes in Work and Extra Work not made strictly in accordance with the terms of this Article. Agreement on any Change Order or Extra Work Order shall constitute a final settlement, and full accord and satisfaction, of all matters relating to the change in the Work or Extra Work that is the subject of the Change Order or Extra Work Order, including, but not limited to, all direct and indirect costs, and any and all claims associated with such changed or extra work..

18.0 BACKCHARGES

18.1 Owner may impose backcharges against Contractor or deduct backcharges from monies owed to Contractor for performance or reperformance by Owner or others of Work, including but not limited to, costs associated with defective work, nonperformance by Contractor, termination for cause, clean-up and disposal of debris, damages to Owner's tools and equipment and warranty repairs. Contractor will be responsible for the cost of such performance or reperformance plus a fifteen percent (15%) administrative charge.

19.0 TAXES

19.1 The Contract Price shall include, and Contractor shall pay, all taxes and assessments for unemployment insurance, workers' compensation, social security and disability benefits, and other taxes, which are based upon the compensation paid to persons employed by Contractor or its Subcontractors for the performance of any Work under the Contract.

- 19.2 Except as provided below, the Contract Price shall include all applicable foreign, federal, state and local taxes payable by Contractor with respect to the Contract.
- 19.2.1 Contractor Purchases – All States. If Owner specifies that tangible personal property to be incorporated into real property as defined for sales and use tax purposes or taxable services to be purchased by Contractor from Subcontractors qualify for exemption from sales or use taxes, Contractor shall not include sales or use taxes on such exempt tangible personal property or services in the Contract Price. Unless otherwise specified: a) consumable materials and supplies or Contractor’s tools and equipment that are not incorporated into the Work or the overall project are not eligible for exemption and the Contract Price shall include, and Contractor shall pay, any sales or use taxes on such items; and b) Contractor will use its own properly-executed exemption or resale certificate, and not Owner’s direct pay permit, to make exempt purchases of tangible personal property or services from Subcontractors.
- 19.2.2 Owner Purchases from Contractor – All States. With respect to any Owner purchases from Contractor of tangible personal property not incorporated into real property as defined for sales and use tax purposes or taxable services, Owner shall provide to Contractor its direct pay permit (if Owner has been issued a direct pay permit) or an appropriate exemption certificate required to relieve the Contractor of its responsibility to collect sales or use tax from the Owner. If Owner provides Contractor such direct pay permit or exemption certificate, sales or use taxes on Owner purchases from Contractor of tangible personal property or taxable services shall not be collected from Owner or included in the Contract Price. Unless otherwise approved or directed by Owner in writing, Contractor shall not use Owner’s direct pay permit to make exempt purchases of tangible personal property or taxable services from Subcontractors.
- 19.2.3 Texas Contracts. For Contracts where the Work is being performed in Texas, Contract shall state materials and service charges separately and shall be a “separated contract” for sales and use tax purposes. Owner shall provide to Contractor its direct pay permit (if Owner has been issued a direct pay permit) or an appropriate exemption certificate required to relieve the Contractor of its responsibility to collect sales or use tax from the Owner. If Owner provides Contractor such direct pay permit or exemption certificate, sales or use taxes on Owner purchases from Contractor of tangible personal property or taxable services shall not be collected from Owner or included in the Contract Price.
- 19.2.4 Contractor Cooperation. Contractor shall take all steps reasonably necessary to ensure that Contractor’s purchases from Subcontractors of items of tangible personal property or services are exempt from sales and use tax pursuant to any applicable exemption pursuant to the law of any U.S. jurisdiction or its political subdivisions.

20.0 INSURANCE REQUIREMENTS

- 20.1 Contractor shall at its sole expense, procure and maintain, and shall cause its Subcontractors to procure and maintain, throughout the term of this Contract, the following types of insurance with the following, minimum limits:
- 20.1.1 Workers’ compensation insurance with statutory limits in accordance with all jurisdictions where Contractor has operations including where the Work is to be performed (if Contractor is a non-subscriber to workers’ compensation, evidence of insurance equivalent to workers’ compensation must be provided);
- 20.1.2 Employer’s liability in an amount not less than \$1,000,000;

- 20.1.3 Business/commercial automobile insurance covering all owned, non-owned and hired autos in an amount not less than \$5,000,000 covering claims of bodily injury and property damage combined single limit each accident; and
 - 20.1.4 Commercial general liability insurance covering claims of bodily injury and property damage in an amount not less than \$5,000,000 per occurrence. Such coverage shall also include blanket contractual coverage, products and/or completed operations coverage and contain no exclusion for explosion, collapse, or underground property damage (XCU coverage).
- 20.2 If any of the Work performed by Contractor includes the Work described in Sections 20.2.1 through 20.2.8 listed below, then Contractor shall at its sole expense, procure and maintain, and shall cause its Subcontractors to procure and maintain, throughout the term of this Contract the corresponding types of insurance with the defined minimum limits:
- 20.2.1 If any Work is to be performed by the Contractor using aircraft defined as a helicopter or fixed-wing aircraft, aircraft liability insurance with a combined limit of not less than \$10,000,000;
 - 20.2.2 If Contractor is engaged in operations which use marine vessels or floating equipment, or which are subject to maritime jurisdiction, U.S. Longshore & Harbor Workers Compensation Act Marine Liability insurance (including Jones Act and maritime employer's liability if operations are subject to federal jurisdiction) and pollution liability (under terms equivalent to current W.Q.I.S. policy provisions if operations are subject to federal jurisdiction) in amounts not less than \$20,000,000 per occurrence;
 - 20.2.3 If the Work involves the Contractor performing professional services, professional liability insurance or errors and omissions insurance in an amount not less than \$2,000,000;
 - 20.2.4 If the Work involves the Contractor handling, transporting, disposing of or performing Work or operations with hazardous materials or other contaminants, waste or toxic materials, Contractor's pollution Liability insurance with an amount of not less than \$5,000,000 per occurrence; such insurance will cover sudden, accidental and gradual pollution losses;
 - 20.2.5 If any Work is to be performed by the Contractor using unmanned aerial system (UAS), aircraft liability insurance, including coverage for UAS, with a combined limit of not less than \$5,000,000 per occurrence;
 - 20.2.6 If any Work Includes Contractor having access to PII, privacy data, or network systems, cyber liability insurance with limits of not less than \$5,000,000 per claim and in the aggregate, including privacy/network security (cyber) liability coverage, providing protection against liability for example, and at a minimum, but not all inclusive: (1) privacy breaches (liability arising from the loss or disclosure of confidential information no matter how such loss occurs); (2) system breaches; (3) denial or loss of service; (4) introduction, implantation, or spread of malicious software code; (5) unauthorized access to or use of computer systems; (6) ID threat; (7) ransomware. No exclusion/restriction for unencrypted portable devices/media may be on the policy;
 - 20.2.7 If any Work includes providing computer or information technology services, technology errors and omissions insurance with limits of not less than \$5,000,000 per claim and in the aggregate, including coverage for liabilities arising from errors, omissions, or negligent acts in rendering or failing to render computer or information technology services and technology products. Coverage for violation of software copy must be included. Technology services should at a minimum include, but not all inclusive: (1)

systems analysis; (2) systems programming; (3) data processing; (4) systems integration; (5) outsourcing, including outsourcing development and design; (6) systems design, consulting, development, and modification; (7) training services relating to computer software or hardware; (8) management, repair, and maintenance of computer products, networks, and systems; (9) marketing, selling, servicing, distributing, installing, and maintaining computer hardware or software; (10) data entry, modification, verification, maintenance, storage retrieval or preparation of data output; and any other services provided by Contractor;

- 20.2.8 If Contractor's Work involves the use of Contractor's tools, equipment, and other personal property, "All risk" or its equivalent property insurance covering the full replacement cost of such personal property.
- 20.3 Contractor shall waive, and shall cause each of its insurers to waive, any and all rights of recovery, by subrogation or otherwise, against Owner and its affiliates, officers, directors, employees, agents and assigns of any type.
- 20.4 To the extent permitted by law, the commercial general liability, the business automobile, and (if applicable) the cyber/tech liability, contractor's pollution liability, aircraft liability and marine liability insurance shall include Owner and its affiliates, officers, directors, employees, agents and assigns of any type as additional insureds with respect to Owner's liability arising out of the operations of Contractor. ISO CG 04/2013 edition additional insured endorsements, or equivalent language are not acceptable.
- 20.5 Each of Contractor's insurance policies are primary without right of contribution and the liability of the insurers will not be affected by any other insurance of the additional insured so as to reduce the amount payable to the additional insured under such policies provided that, in relation to the interests of the additional insured, the insurances will not be invalidated by any act or omission by the Contractor, and shall insure the interests of the additional insured, regardless of any breach or violation by Contractor of any warranty, declaration or condition, contained in such insurance.
- 20.6 The insurance required by this Article is in addition to and separate from any other obligations contained in the Contract.
- 20.7 Products and/or completed operations coverage shall be maintained for a period of five (5) years after the completion of the Work.
- 20.8 If any of the policies indicated above are placed on a "claims-made" basis, such coverage shall be maintained for a period of not less than five (5) years following the completion of the Work.
- 20.9 Any deductibles or retentions on any of the policies required herein shall be the sole responsibility of the Contractor.
- 20.10 The above referenced limit requirements may be met by any combination of primary and umbrella or excess liability policies so long as the total limit of insurance requirement is met. The umbrella or excess policies must follow form of the primary liability. The required limits and coverages referred to herein shall in no way affect, nor are they intended as a limitation of Contractor's liability with respect to its performance of the Work.
- 20.11 Upon inception of the Contract and prior to the commencement of Work, Contractor shall provide Owner, or Owner's agent, with an acceptable certificate of insurance evidencing the insurance required under this Article. Contractor will not be permitted to bring its employees, materials or equipment onto the Site until Owner, or its agent, receives such evidence of insurance. Contractor also must provide an updated certificate of insurance at any time during the Contract term upon Owner's request. Contractor shall immediately notify Owner of cancellation or any material changes

in the insurance policies required herein. If such insurance policies are subject to any exceptions to the terms specified herein, such exceptions shall be explained in full in such certificates. Owner may, at its discretion, require Contractor to obtain insurance policies that are not subject to non-standard exceptions.

- 20.12 In all cases where Contractor's employees (defined to include Contractor's direct, borrowed, special, or statutory employees) are covered by the Louisiana Worker's Compensation Act, La. Rev. Stat. Ann. 23:1021 et seq., Owner and Contractor agree that pursuant to Section 23:1061 (A) (1) all Work performed by Contractor and its employees under the terms and conditions of the Contract is an integral part of Owner's operations and is essential to Owner's ability to generate its goods, products and services. Additionally, Owner and Contractor agree that for purposes of Section 23:1061 (A) (3) Owner is the principal or statutory employer of Contractor's employees. Irrespective of Owner's status as the statutory employer or special employer of Contractor's employees, pursuant to Section 23:1031 (C), Contractor shall remain primarily responsible for the payment of Louisiana Worker's Compensation benefits to its employees, shall indemnify Owner from any and all claims of Contractor's employees and shall not be entitled to seek contribution for any such payments from Owner.

21.0 INDEMNIFICATION

- 21.1 The laws of the state where the Work giving rise to the claim is performed shall apply to this Article.
- 21.2 **TO THE EXTENT PERMITTED BY LAW, CONTRACTOR SHALL INDEMNIFY, DEFEND AT ITS EXPENSE, AND SAVE OWNER HARMLESS FROM ANY LIABILITIES, COSTS AND CLAIMS, INCLUDING JUDGMENTS RENDERED AGAINST, AND FINES AND PENALTIES IMPOSED UPON, OWNER AND REASONABLE ATTORNEYS' FEES AND ALL OTHER COSTS OF LITIGATION (COLLECTIVELY, "LIABILITIES"), ARISING OUT OF THE CONTRACT, INCLUDING INJURIES, DISEASE OR DEATH TO PERSONS, OR DAMAGE TO PROPERTY, AND ENVIRONMENTAL CLAIMS AND LIABILITIES, CAUSED BY CONTRACTOR, ITS EMPLOYEES, AGENTS OR SUBCONTRACTORS, OR IN ANY WAY ATTRIBUTABLE TO THE PERFORMANCE OF THE CONTRACT, EXCEPT THAT CONTRACTOR'S OBLIGATION TO INDEMNIFY OWNER SHALL NOT APPLY TO ANY LIABILITIES ARISING FROM OWNER'S SOLE NEGLIGENCE. TO THE EXTENT PROVIDED IN THIS ARTICLE, IN STATES OTHER THAN OHIO, MICHIGAN, KENTUCKY, TENNESSEE, MISSOURI, OKLAHOMA, VIRGINIA, AND WEST VIRGINIA, CONTRACTOR AGREES TO INDEMNIFY OWNER FOR LIABILITIES ARISING FROM OWNER'S ACTS AND OMISSIONS, NEGLIGENT OR OTHERWISE. OWNER SHALL HAVE THE RIGHT TO SELECT ITS OWN COUNSEL AND TO HAVE COUNSEL SEPARATE FROM CONTRACTOR, ALL AT CONTRACTOR'S EXPENSE.**
- 21.3 **WITH RESPECT TO CLAIMS AGAINST OWNER BY CONTRACTOR'S EMPLOYEES, CONTRACTOR UNDERSTANDS AND AGREES THAT THIS INDEMNIFICATION OBLIGATION SHALL NOT BE LIMITED IN ANY WAY BY, AND CONTRACTOR EXPRESSLY WAIVES, ITS IMMUNITY AS A COMPLYING EMPLOYER UNDER ANY APPLICABLE WORKERS' COMPENSATION LAW, BUT ONLY TO THE EXTENT THAT SUCH IMMUNITY WOULD BAR OR AFFECT RECOVERY UNDER OR ENFORCEMENT OF THIS INDEMNIFICATION OBLIGATION.** With respect to the State of Ohio, this waiver applies to Section 35, Article II of the Ohio Constitution and Ohio Rev. Code Section 4123.74.
- 21.4 **CONTRACTOR SHALL BE LIABLE FOR REASONABLE ATTORNEYS' FEES AND ALL COSTS OF LITIGATION ASSOCIATED WITH ENFORCEMENT OF ALL INDEMNITY OBLIGATIONS SET FORTH IN THE CONTRACT.**

22.0 **LIMITATION OF LIABILITY**

22.1 **NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR ANY INCIDENTAL, INDIRECT, SPECIAL, PUNITIVE OR CONSEQUENTIAL DAMAGES. CONTRACTOR MUST BRING ANY CAUSE OF ACTION ARISING UNDER THE CONTRACT WITHIN ONE YEAR FROM THE TIME THE CAUSE OF ACTION ACCRUES.**

23.0 **LIENS**

23.1 To the extent permitted by law, Contractor shall not file or permit to be filed any lien with respect to the Work and hereby expressly waives any right to file or cause to be filed a lien. Contractor, in its subcontracts, shall require all Subcontractors to expressly waive the right to file any liens against Owner's property, and, if requested, provide Owner with copies of such waivers.

23.2 In the event any claim is asserted or any lien filed against Owner or its property, or notice of lien is provided to Owner in violation of this provision, further payment to Contractor shall not become due under the Contract until the claim is satisfied or the lien released without cost to Owner and Contractor shall provide Owner with evidence of payment relating to such claim or lien. If Contractor fails to settle any claim or secure the release of any lien, Owner may take whatever steps it deems necessary to settle the claim or release the lien, including bonding off the lien. Owner may deduct its costs and expenses for settling any claim or securing the release of any lien filed by Contractor or its Subcontractors from any money due or to become due to Contractor under the Contract. If final payment has been made, Contractor shall reimburse to Owner its costs to settle any claim or secure the release of any lien arising out of the Contract.

24.0 **INTELLECTUAL PROPERTY**

24.1 Contractor warrants that its performance of the Work will not infringe upon or violate any trademarks, patents, copyrights, trade secrets or other third party property rights. If the performance of Work is held in any action to constitute infringement, or the use of the Work is enjoined, Contractor, at its expense, shall procure for Owner the right to continue use of the Work, or replace the Work with non-infringing materials or methods satisfactory to Owner, or modify the Work in a manner satisfactory to Owner so that the Work becomes non-infringing. Contractor agrees to indemnify and save Owner harmless from and against any liability or damages, including attorneys' fees, arising out of any alleged infringement or violation.

24.2 All inventions, discoveries, documents, works of authorship, methods, and the derivative works thereof, resulting from the Work, including patents, patent applications, copyrights, trade secrets and other intellectual property (collectively "Intellectual Property"), shall be the sole and exclusive property of Owner. Contractor shall promptly inform Owner of the development of any such Intellectual Property and does hereby assign and transfer the entire right, title and interest, together with all rights of priority, in and to such Intellectual Property to Owner. Contractor shall promptly cooperate with Owner in signing any additional documentation necessary to assign and perfect ownership of such Intellectual Property in Owner or to allow Owner to register its property rights therein. Contractor warrants that it has obtained written agreements from its employees and agents as necessary to effectuate the purpose of this Article. The Intellectual Property assigned and transferred to Owner shall be the Confidential Information of Owner.

24.3 Contractor grants Owner a nonexclusive, non-revocable, perpetual, fully paid license to utilize Contractor's intellectual property existing separate from the Contract, including inventions, discoveries, works or authorship, methods, and trade secrets, regardless of whether such are the

subject of patents, copyrights or other intellectual property protection, to the extent necessary for Owner to achieve the full benefit of the Work.

- 24.4 Contractor shall not use Owner's name or logo in marketing, endorsements, or other business purposes without prior written consent from Owner.

25.0 DRAWINGS AND DATA

- 25.1 Contractor shall furnish for Owner's review, prior to commencement of Equipment manufacture or fabrication, general and detailed drawings of the Equipment in the format requested. Such drawings shall be certified as to accuracy and completeness and shall show information adequate to enable Owner to design and provide suitable clearances. If required by the Contract or any code, law or agency, Contractor will provide professional engineer or architect sealed drawings and reports for the state where the Equipment is to be finally installed. Figures shall take precedence in all cases over scaled measurements on drawings. Where obvious discrepancies exist, Contractor shall consult with and follow the instructions of Owner. Owner's approval of Contractor's drawings shall not relieve Contractor of its obligation to comply with the contract requirements.

- 25.2 All written data, such as drawings, plans, reports, designs and specifications, prepared by Contractor for Owner during the performance of Work shall become the property of Owner. Such data, together with all data furnished by Owner and lent to Contractor for return, shall be delivered to Owner upon request, or upon completion of the Work or termination of the Contract. Contractor shall cooperate with Owner by executing such documents as are necessary to assign and perfect ownership in Contractor provided data to Owner.

26.0 CONFIDENTIALITY

- 26.1 Confidential Information includes, but is not limited to, business plans and methods; customer information; engineering, operating and technical data; and the dates of Owner's outage schedule, information concerning the Work, and Owner's activities. "Confidential Information" does not include information that (a) has become part of the public domain other than by acts or omissions of the recipient; (b) has been furnished or made known to the recipient by a third person as a matter of legal right and without restriction on use; (c) was in the recipient's possession prior to disclosure by the disclosing party without restriction on use; or (d) is independently developed by the recipient without access to the Confidential Information.

- 26.2 Subject to Section 26.4, each party agrees (a) to protect the Confidential Information of the other with at least the same degree of care used to protect its own Confidential Information; (b) not to use (except for the purpose described herein), publish or disclose to third parties such Confidential Information; and (c) upon the request of the disclosing party, to promptly deliver to the disclosing party all written copies of its Confidential Information. Notwithstanding the foregoing, a recipient shall be entitled to disclose Confidential Information to its officers, employees, affiliates (including any joint ventures of which Owner or any of its affiliates are a member and the other members of such joint ventures), agents, lenders, attorneys and other advisors (collectively, "Representatives"), provided that the Representatives shall be informed of the confidentiality obligations provided herein.

- 26.3 Notwithstanding anything to the contrary stated herein, at any time during or after the term of the Contract, Owner or any of its Representatives may provide copies, summaries and analyses of Confidential Information or evaluation material obtained under this Contract to any regulatory, governmental, judicial, or supervisory authority including, without limitation, to the staff of any such regulators or to any advisors to any such regulators to the staff thereof or during the course of regulatory proceedings involving Owner or if such disclosure is necessary in order to maintain or obtain regulatory or governmental approvals, applications exemptions, or other matters pertaining

to Owner's business, provided, that Owner exercises commercially reasonable efforts to obtain assurance that confidential treatment will be accorded such information.

- 26.4 If either party is required pursuant to applicable law or otherwise becomes legally compelled to disclose any of the Confidential Information, such party shall promptly advise the disclosing party in order that the disclosing party may seek a protective order or such other remedy as the disclosing party may consider appropriate in the circumstances. In any event, the compelled party may disclose only that portion of the Confidential Information which such party is legally required to disclose in the judgment of the party's legal counsel without any liability to the disclosing party hereunder and such disclosure shall not be a breach of this Article.
- 26.5 Contractor shall require its Subcontractors, if any, to expressly comply with the confidentiality provisions as set forth herein.
- 26.6 All documents prepared by Contractor for Owner during the performance of Work that incorporate, in whole or in part, information owned or provided by Owner shall not be marked or designated in any way as the confidential or proprietary information of Contractor without also stating that Owner has rights in such documents. Owner shall have the right to question the designation of Confidential Information by Contractor and Contractor agrees to provide Owner with reasonable cooperation in explaining such designation. Contractor agrees that Owner's acceptance of documents containing the Confidential Information of Contractor shall not be construed as a restriction on Owner's rights to use, release, disclose, distribute, copy or reproduce the documents.

27.0 DEFAULT

- 27.1 The occurrence of any of the following shall constitute an "Event of Default":
 - 27.1.1 Contractor files a petition in bankruptcy, or if its creditors file an involuntary petition in bankruptcy, or if it makes a general assignment for the benefit of its creditors, or if a receiver is appointed on account of its insolvency.
 - 27.1.2 Contractor (a) fails to maintain the schedule set forth in the Contract, or (b) fails to promptly pay Subcontractors for material or labor, or (c) commits repeated or substantial violations of laws, rules, regulations or policies, in Owner's sole discretion, or (d) materially breaches the Contract.
- 27.2 Upon an Event of Default, Owner may take any or all of the following actions without affecting the Contract Price or schedule:
 - 27.2.1 Owner may direct Contractor to cease performance on all or part of the Contract until satisfactory corrective action has been taken;
 - 27.2.2 Owner may have others take corrective action necessary to achieve compliance with the Contract. Owner may deduct the cost of such corrective action by others from any monies due to Contractor. Corrective action by others shall be taken when, in the judgment of Owner, the noncompliance threatens safety, unreasonably interferes with or delays the work of others, or otherwise creates a situation the resolution of which cannot be delayed without adversely impacting quality, cost or timely completion;
 - 27.2.3 Owner may pursue damages for delay under the terms of Article 28.0;
 - 27.2.4 Owner may suspend the Contract under Article 29.0; and/or
 - 27.2.5 Owner may terminate the Contract under the terms of Section 30.1.

27.3 Each of Owner's rights set forth above shall be cumulative and additional to any other rights or remedies provided in law or equity or otherwise.

28.0 DAMAGES FOR DELAY

28.1 Contractor shall be liable for any direct damages incurred by Owner arising out of Contractor's failure to perform on time.

28.2 In lieu of Section 28.1, if prior to the execution of the Contract or the issuance of the applicable Contracting Instrument, the parties have agreed to liquidated damages as a reasonable estimate of the amount of direct damages resulting from Contractor's delay, then: i) the parties intend that the liquidated damages for delay constitute compensation to Owner, and not a penalty; ii) Owner's harm caused by a Contractor's delay would be impossible or very difficult to accurately estimate as of the effective date of the Contract or the applicable Contracting Instrument; iii) the liquidated damages for delay are a reasonable estimate of the anticipated or actual harm that might arise from Contractor's delay in performance; and iv) Contractor's payment of the liquidated damages for delay is Contractor's sole liability and entire obligation and Owner's exclusive remedy for any delay in Contractor's performance.

29.0 SUSPENSION

29.1 Owner may at any time suspend all or any part of the Work. Owner shall provide Contractor written notice verifying the suspension date. Immediately upon receipt of the suspension notice, Contractor shall take the necessary actions to comply with the suspension notice.

29.2 Owner shall pay Contractor in accordance with the terms of payment set forth in the Contract for the Work completed prior to the time of suspension and for the incremental, Direct Costs that result from Contractor's compliance with the suspension notice.

29.3 Owner may, at any time during the suspension period, either terminate the Contract in accordance with Section 30.2, or authorize the Work or any portion thereof to be restarted. Owner shall pay Contractor the incremental, Direct Costs associated with the restart of the Work and shall resume payments to Contractor in accordance with the terms of payment under the Contract thirty (30) days after the restart of Work.

29.4 The schedule shall be adjusted to provide for a reasonable extension of time for Contractor's performance.

30.0 TERMINATION

30.1 Termination for Cause

30.1.1 Upon an Event of Default, Owner, at its sole option, may terminate the Contract upon written notice to Contractor or issue a notice of non-conformance to Contractor. If Owner elects to issue a notice of non-conformance to Contractor, and Contractor fails to take corrective action or submit an acceptable plan within two (2) Business Days, Owner may terminate the Contract upon written notice to Contractor.

30.1.2 In the event of such termination, Contractor shall immediately prepare and submit to Owner an itemization of the Work completed by Contractor. Owner may require Contractor to leave the Site. Owner may take over such Work and complete it, or have the Work completed by others. Owner may take possession of and utilize in completing the Work Contractor's materials, Equipment to be installed, supplies, tools and equipment at the Site.

30.1.3 Contractor shall not be entitled to further payment until all of the Work is completed in its entirety and Final Acceptance has been achieved. If the cost of completion exceeds the unpaid balance under the Contract, Contractor shall pay the difference to Owner within thirty (30) calendar days of demand.

30.1.4 In the event that a court determines that the termination was not properly a termination for cause, pursuant to Section 30.1, Contractor's remedy shall be limited to the payments permitted in accordance with Section 30.2.

30.2 Termination for Convenience

30.2.1 Owner may terminate this Contract, in whole or in part, for its convenience. Owner will give Contractor written notice of termination specifying the extent to which the Contract is terminated and the date, immediately or otherwise, on which termination becomes effective.

30.2.2 Upon termination for convenience, Contractor will comply with instructions in the notice of termination regarding delivery to Owner of all Work in progress and all completed Work, which shall become the property of Owner upon delivery.

30.2.3 In the event of such termination, Contractor shall receive payment, including the retained percentage, for the Work satisfactorily performed up to the effective date of such termination. In addition, Owner shall reimburse Contractor for incremental, Direct Costs resulting from the termination, provided that compensation was not otherwise made for such costs. Final payment shall be made upon the parties' agreement of the amount of the final invoice and Owner's receipt of an Affidavit of Completion in the form of Exhibit 1. Owner shall not be responsible for Contractor's lost profit on the terminated portion of the Contract.

31.0 FORCE MAJEURE

31.1 Neither party shall be in breach of the Contract to the extent that any delay or default in performance is due to a Force Majeure Event. The term, "Force Majeure Event" shall mean any cause beyond the reasonable control of the delayed or defaulting party, including, but not limited to, acts of God including unusually adverse weather, fire, and epidemic; acts of public enemy including war, acts of terrorism, riot, and civil disturbance; and national labor strikes, which by exercise of due foresight such party could not have been expected to avoid or overcome. Contractor's inability to obtain adequate and sufficient labor in order to maintain progress of the Work shall not constitute a Force Majeure Event. No delay in performance resulting from a Force Majeure Event shall result in any liability on the part of Owner. Notwithstanding the preceding sentence, in the event of a delay caused by any act or failure to act on the part of Owner, Contractor's sole remedy shall be as set forth in Article 17.0.

31.2 The delaying party shall immediately notify the other party of the beginning of a delaying event, and shall confirm the notice in writing within ten (10) Business Days of the beginning of the event. The notice shall contain a detailed account of the delay, including the cause of the delay, an estimate of the duration of the delay, an estimate of the delay's impact to the schedule, and the plan to mitigate the effects of the delay.

31.3 If Contractor is the delaying party, and the delay is a Force Majeure Event as defined in Section 31.1, Owner shall grant Contractor an extension of the time for performance, to be mutually agreed upon by Contractor and Owner. The extension of time granted as a result of a Force Majeure Event shall in no case exceed the length of the delay and such extension may be withheld or reduced to the extent Contractor does not provide notice in accordance with Section 31.2. If Owner so requests, Contractor

shall expedite its schedule to mitigate the effects of the excusable delay. Owner shall pay incremental, Direct Costs incurred by Contractor for expediting at Owner's request.

32.0 EQUIPMENT AND WORKMANSHIP WARRANTY

- 32.1 Beginning upon Final Acceptance and for a period of one year thereafter, or for such period as may be specified elsewhere in the Contract, Contractor warrants that (a) it will perform the Work in accordance with the accepted standards of care and competence found in the engineering or other applicable profession as such standards relate to and are commonly used in the electric utility industry, and (b) all Equipment and workmanship shall be free of any and all defects and shall be in conformity with the requirements of the Contract.
- 32.2 Subject to the provisions of Section 32.3, in the event that the Equipment or workmanship does not comply with the warranty, Contractor shall, at no cost to Owner, promptly repair or replace such nonconforming Equipment or workmanship with as little disruption to Owner's operations as practicable. Contractor shall be responsible for the total cost of correcting any defects, including but not limited to, the costs of engineering, design, materials, labor, any necessary equipment removal, disassembly, shipping, reinstallation and retesting of the installation. Owner shall give Contractor notice of observed defects with reasonable promptness. If nonconforming Equipment or workmanship causes an outage or other delay of operations, Contractor shall make the repair or replacement on an overtime, maximum effort basis, at Contractor's expense.
- 32.3 If Owner directs Contractor to repair or replace any defect and Contractor fails to do so within a reasonable time, or if an emergency exists rendering it impracticable for Contractor to perform the repair or replacement, Owner may make or cause to be made such repair or replacement without affecting the validity of the warranty. Owner's cost for making the repair or replacement shall be deducted from the Contract Price or any unpaid portion thereof. If the unpaid portion of the Contract Price is insufficient to cover such cost, Contractor shall reimburse Owner.
- 32.4 Owner will not pay for any defective portion of the Equipment or workmanship until remedied by Contractor at Contractor's expense in accordance with the Contract requirements.
- 32.5 Owner must approve any proposed correction or alteration by Contractor of the Equipment or workmanship, or parts thereof, made at any time or at any location, before such correction or alteration is undertaken. Approval by Owner shall not relieve Contractor from responsibility for complying with the requirements of the Contract and all applicable codes.
- 32.6 Any Equipment or workmanship which are repaired or replaced pursuant to this Article shall be warranted for a period of one year from the date of completion and acceptance of such repair or replacement, or for the remainder of the original warranty period, whichever is longer.
- 32.7 Contractor shall obtain, for the benefit of Owner, warranties from each Subcontractor unless otherwise directed by Owner. Contractor shall cause all such Subcontractor warranties to be assignable to Owner. Such warranties shall be in addition to the warranties of Contractor set forth in this Article.
- 32.8 Upon Final Acceptance, Contractor shall assign to Owner the warranties Contractor receives from all Subcontractors. To the extent such warranties are not assignable despite the requirements of these general terms and conditions, Contractor agrees that Owner may assert or enforce any right Contractor may have to enforce such warranties, or if such warranties can only be enforced by Contractor under its own name, Contractor shall take all actions requested by Owner to enforce such warranties, and shall pass through or assign the benefit of such enforcement to Owner.

33.0 REPORTING OF COMPLAINTS

33.1 Contractor shall immediately report to Owner the complete details of all complaints, including any OSHA violations and complaints received from governmental authorities, Subcontractors, laborers, other third parties or members of the public relating to the Work.

34.0 RETENTION AND EXAMINATION OF INFORMATION, BOOKS AND RECORDS

34.1 Owner reserves the right to audit records necessary to permit evaluation and verification of (i) claims submitted, (ii) Change Orders, and related overhead and general and administrative costs, and (iii) Contractor's compliance, in the performance of the Contract and its dealings with Owner with (a) the Contract requirements; and (b) Owner's Supplier Code of Conduct, as updated from time to time, governing business ethics. Owner's right to audit shall not extend to fixed, lump-sum or unit pricing. However, Owner shall have the right to audit Contractor's application of such fixed, lump-sum, or unit pricing to the invoices for the Work. Owner reserves the right to review Contractor's records which are reasonably required to verify that material and equipment conform to the technical requirements of the Contract.

34.2 Contractor shall cooperate with Owner and provide Owner with information and records ("information") pertaining to the Work, including training and certifications, as requested by governmental agencies, Owner, or courts of law.

34.3 Contractor shall retain for a period of three years after Contract termination or expiration all information relating to the Work. Owner may audit and copy such information at Contractor's premises during regular business hours. If requested by Owner, Contractor shall submit to Owner a copy of each of its subcontracts. Contractor shall include in its subcontracts a provision granting Owner the rights against Subcontractors contained in this Article.

35.0 COMPLIANCE WITH LAWS

35.1 Contractor warrants that all materials and Equipment supplied and all Work performed will comply with, and be manufactured, priced, sold and labeled in compliance with all applicable federal, state and local laws, rules, regulations, orders and ordinances, including, without limitation, environmental protection, energy, safety and health, and labor laws and regulations and applicable industry codes and standards.

35.2 Unless exempted, **Contractor shall abide by the requirements of 41 C.F.R. § 60-1.4(a)(7), 41 C.F.R. § 60-300.5(a), and 41 C.F.R. § 60-741.5(a). These regulations prohibit discrimination against minorities, females, qualified protected veterans, and qualified individuals on the basis of disability and require affirmative action by covered prime contractors and subcontractors to employ and advance in employment minorities, females, qualified protected veterans, and qualified individuals with disabilities.** Contractor represents that it does not, and shall not for the term of the Contract, provide or maintain for its employees, facilities that are segregated on the basis of race, color, religion, sex, national origin, veteran status or disability status. Contractor represents that it will not assign its employees to perform any work related to the Contract at a location where facilities are segregated on the basis of race, color, religion, sex national origin, veteran status or disability status. Contractor agrees that it will not enter into any agreement to obtain goods or services relating to the Contract with any entity that provides, maintains or assigns its employees to work at locations where facilities are segregated on the basis of race, color, religion, sex or national origin. As used herein, "facility" means waiting rooms; work areas; restaurants and other eating areas; time clocks; locker rooms and other storage or sleeping areas, except as necessary to ensure privacy between male and female employees; parking lots, drinking fountains; recreation or

entertainment areas; and transportation. If not otherwise exempted by Title 48 and to the extent applicable, Contractor will comply with 48 CFR §52.219-8, Utilization of Small, Small Disadvantaged, and Women-Owned Small Business Concerns, and 48 CFR §52.219-9, Small, Small Disadvantaged, and Women-Owned Small Business Subcontracting Plan. If not otherwise exempted by 41 CFR §60-1.5, Contractor represents that it will file all reports or other required information specified in 41 CFR §60-1.7. Contractor shall also abide by the requirements of 29 CFR Part 471, Appendix A to Subpart A, which is incorporated by reference, as applicable.

35.3 Contractor shall indemnify and save Owner harmless from any and all costs or expenses arising out of any violations of such laws, ordinances and regulations.

36.0 PERMITS AND LICENSES

36.1 Contractor shall obtain all permits and licenses required by any regulatory authority for the performance of any portion of the Work, except that Owner shall obtain permits and licenses for all structures which are to become a permanent part of the Site. Before starting Work, Contractor shall submit to Owner a copy of all permits and licenses required by any such regulatory authority.

36.2 Contractor shall obtain and maintain all professional licenses necessary to perform the Work.

36.3 Contractor shall indemnify and save Owner harmless from any and all costs or expenses arising out of the failure of Contractor to obtain such permits and licenses.

37.0 NOTICES

37.1 Each party shall designate in writing a representative to receive any and all notices required under the Contract. Notices shall be in writing and shall be given to the representative designated to receive them, either by personal delivery, certified mail, facsimile, e-mail (with confirmation of receipt) or any similar means, properly addressed to such representative. All notices shall be effective upon receipt, or upon such later date following receipt as set forth in the notice. Either party may, by written notice to the other, change the representative or the address to which such notices are to be sent.

38.0 SEVERABILITY

38.1 In the event that any of the provisions, or portions thereof, of the Contract are held to be unenforceable or invalid by any court, the validity and enforceability of the remaining provisions, or portions thereof, shall not be affected.

39.0 WAIVER

39.1 Either party's waiver of any breach of the Contract shall not be deemed to be a waiver of any other breach of the same or a different term of the Contract. Contractor agrees not to claim any waiver by Owner of such notice requirements based upon Owner's conduct or Owner having actual, verbal, implied, or constructive notice.

40.0 NON-DISCLOSURE

40.1 Except as required by law, regulation, or judicial or administrative order, neither party shall disclose the terms of the Contract without the consent of the other party. Notwithstanding the foregoing, Owner may disclose the terms of the Contract without the consent of Contractor (a) to any of its affiliated companies (including any joint ventures of which Owner or any of its affiliates are a member and the other members of such joint ventures); and (b) to any prospective transferee or purchaser of assets of Owner or any of affiliates.

41.0 HEADINGS

41.1 Headings are provided for the convenience of the parties, and shall not affect the interpretation of any provision.

42.0 AFFILIATED COMPANIES

42.1 Any indemnification of Owner or any limitation of Owner's or Contractor's liability under this Contract shall to the same extent apply to Owner's or Contractor's directors, officers, employees, agents, and affiliated companies (including any joint ventures of which Owner or any of its affiliates are a member and the other members of such joint ventures), including any directors, officers, employees and agents thereof.

42.2 The affiliated companies (including any joint ventures of which Owner or any of its affiliates are a member and the other members of such joint ventures) of the American Electric Power System are severally and not jointly liable for obligations arising hereunder.

43.0 APPLICABLE LAWS AND JURISDICTION

43.1 Except for Article 21.0 the rights and obligations of the parties arising out of the Contract shall be governed in all respects by the laws of the State of Ohio, excluding any conflict-of-law rules. Any reference herein to the laws of other states is made only to the extent that the laws of that state might apply, notwithstanding the intent of the parties that the laws of the State of Ohio should apply. The parties agree that the United Nations Convention on Contracts for the International Sale of Goods does not apply to this Contract.

43.2 Contractor agrees that all actions and proceedings brought by Owner against Contractor may be litigated in courts located in the State of Ohio or the state where Work was performed. Contractor agrees that such courts are convenient forums and irrevocably submits to the personal jurisdiction of such courts. Contractor waives personal service of process and consents to service of process by certified or registered mail at the address designated for receiving notices under this Contract.

44.0 ENTIRE AGREEMENT

44.1 The Contract constitutes the entire agreement between the parties and supersedes all previous and collateral agreements or understandings with respect to the subject matter of the Contract. No waiver, alteration, amendment or modification of any of the provisions of the Contract shall be binding unless in writing and signed by duly authorized representatives of the parties.

45.0 BINDING EFFECT; NO THIRD-PARTY BENEFICIARIES

45.1 Subject to the restrictions on assignment in Section 5.1, this Contract shall be binding upon and shall inure to the benefit of the parties and their respective successors and permitted assigns.

45.2 No provision of the Contract is intended or shall be construed to be for the benefit of third party.

46.0 EXECUTION; COUNTERPARTS; ELECTRONIC SIGNATURES

46.1 The Contract shall not be binding or effective until properly executed by each of the parties hereto. The Contract may be executed in any number of counterparts, each of which shall be deemed to be an original, and all of which, taken together, shall constitute but one and the same Contract, which may be sufficiently evidenced by one counterpart.

46.2 Each party agrees that any electronic signatures, whether digital or encrypted, of the parties included in this Contract are intended to authenticate this writing and to have the same force and effect as

manual signatures. Electronic signature means any electronic sound, symbol or process attached to or logically associated with a record and executed and adopted by a party with the intent to sign such record.

47.0 SURVIVAL

47.1 All of the terms of the Contract which by their nature extend beyond the expiration or termination of the Contract, including indemnification obligations, confidentiality obligations, limitations of liability, shall survive expiration or termination of the Contract and remain in full force and effect.

END OF DOCUMENT

CERTIFICATE OF COMPLETION

_____, represents and warrants that:
(Name of Authorized Representative)

1. S/He is the _____ of
(Title of Authorized Representative)

(Legal Name of Contractor) (Contractor)

that has a contract with _____
(Legal Name of Owner)

(Owner) dated _____ (Owner's Contract No. _____)
(Contract Date) (Contract No.)

involving work on the Owner's property at _____
(Project Name)

located near _____
(City, State)

2. All of the Work required to be performed by the Contractor under said Contract has been performed. All bills and claims for material, labor and services to employees and Subcontractors covering the Work required to be performed under the Contract, have been paid in full by the Contractor. There are no unpaid amounts on the basis of which a lien has been filed, or can be filed, in connection with the Work performed under the Contract.

Signature of Authorized Representative

Scope of Work FS-LC-0003 Rev. A

APPENDIX 2

**PUBLIC SERVICE OF OKLAHOMA
FORT SILL
NEW GENERATION PROJECT
PV SOLAR WORK**

AMERICAN ELECTRIC POWER

AEP SAFETY AND HEALTH SUPPLEMENTAL TERMS AND CONDITIONS

12/18/2020 Rev. 01

TABLE OF CONTENTS

<u>ARTICLE NO.</u>	<u>HEADING</u>	<u>PAGE NO.</u>
1.0	INTRODUCTION	1
2.0	SAFETY & HEALTH PLANNING	1
3.0	GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS	2
4.0	SAFETY & HEALTH PROFESSIONAL	3
5.0	COMMUNICATION	4
6.0	WORK HOUR / WORK DAY LIMITATIONS	5
7.0	CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS	5
8.0	PERSONAL PROTECTIVE EQUIPMENT	5
9.0	INDUSTRIAL HYGIENE	6
10.0	MISCELLANEOUS JOBSITE REQUIREMENTS	8
11.0	TOOLS	10
12.0	REPORTING REQUIREMENTS	10
13.0	OWNER JOBSITE OBSERVATIONS/AUDITS	11
14.0	CONTRACTOR JOBSITE OBSERVATIONS	11
15.0	PROHIBITED FROM JOBSITE	12
16.0	AEP POLICIES AND PROCEDURES	13
17.0	DEFINITIONS AND ABBREVIATIONS	14
18.0	REVIEW AND REVISION HISTORY	15

1.0 INTRODUCTION

- 1.1 No aspect of operations is more important than the health and safety of people. Zero Harm is at the heart of everything we do at AEP. It means we believe all occupational illnesses and injuries are preventable because we care that everyone goes home in the same or better condition than when they came to Work.
- 1.2 These safety and health requirements shall be used in conjunction with the applicable AEP General Terms and Conditions for Work performed across the AEP System. These requirements reflect Owner's minimum expectations regarding safety and health practices and may exceed the requirements of federal, state, and local regulatory agencies. By entering into the Contract, Contractor agrees that Contractor shall perform all Work in accordance with these safety and health requirements.
- 1.3 If Contractor in good faith believes that any rule or procedure set forth herein will put Contractor Personnel or others at risk, or conflicts with Occupational Safety and Health Administration (OSHA), Contractor shall immediately notify Owner and shall cooperate with Owner to develop a mutually acceptable alternative procedure.
- 1.4 Contractor's safety performance will be monitored and evaluated during the performance of the Contract by Owner's Representative. If warranted by Contractor's poor safety performance, Owner may require Contractor to develop a safety improvement plan. Contractor shall provide plan within five (5) calendar days of written notification for AEP review and mutual agreement and follow said plan until completion.
- 1.5 AEP Business Units may have additional requirements within their specific Business Unit appendix, which Contractor must comply with during Work for that Business Unit.
- 1.6 In order to comply with Owner's registration requirement to the VERO Data Management System operated by Safety Management Group (SMG), Contractor shall, at no additional cost to Owner, register with VERO, by going to <https://safetymg.com/preregistration> or by contacting SMG at admin@safetymg.com.
- 1.7 Capitalized terms used but not defined in these safety and health requirements shall have the same meaning as in the applicable AEP General Terms and Conditions.

2.0 SAFETY & HEALTH PLANNING

- 2.1 Contractor shall ensure that all Contractor Personnel exercise planning and forethought regarding the safety and health aspects of all Work performed by Contractor Personnel.
- 2.2 Job Briefing: Prior to the commencement of Work, before any changes are made in procedures or activities, and prior to resuming Work after any significant breaks (i.e. lunch), Contractor shall perform a Job Briefing and complete a written Job Briefing Form (pursuant to requirements set forth by OSHA).
 - 2.2.1 The Job Briefing Form shall include, at a minimum: 1) Work procedures involved 2) hazards and mitigation associated with the Work, 3) special precautions, 4) energy source controls, 5) personal protective equipment requirements, 6) other contractors or Owner personnel working within or adjacent to Contractor's Work (or as specified in the applicable Business Unit appendix), and 7) task requirements for qualified and competent person(s).

- 2.2.1.1 Unless Contractor's Job Briefing Forms are approved in writing by Owner Representative prior to the start of Work, Contractor shall use Owner supplied Job Briefing Form in the applicable Business Unit appendix.
 - 2.2.1.2 Contractor shall take appropriate action for individuals who fail to comply with the Job Briefing including performing Work outside the parameters of the Job Briefing.
 - 2.2.2 Contractor shall make Job Briefing Forms available to all personnel where Work is performed and to Owner, upon request. Contractor shall review the Job Briefing Form with and obtain the signatures of any visitor(s) that arrive at the Jobsite prior to visitor(s) being allowed in the area where Work is taking place.
 - 2.2.3 Contractor shall retain completed Job Briefing Forms pursuant to the record retention section of the Contract.
 - 2.2.4 Owner expects all Contractor Personnel to continuously assess the Jobsite and Work activities for hazards throughout the day. Whenever a problem, circumstance, or result that was not covered in the Job Briefing is encountered during the course of the Work, Contractor shall stop Work immediately, evaluate the situation, and conduct a new or revised Job Briefing before resuming Work. Contractor shall immediately communicate to all affected personnel (see section 2.2.2) any changes to the Job Briefing that occur during the performance of Work.
- 2.3 Work Safety and Health Plan (WSHP): For high risk, complex, or long duration Work, Contractor may be required to submit a WSHP prior to the start of Work (see Business Unit appendix). The WSHP shall cover the Work of Contractor Personnel. Contractor shall collaborate with Owner on issues or informational "gaps" determined by Owner to be present in submitted WSHP. Contractor agrees and shall cooperate with Owner to modify and update any WSHP to accomplish the Work.
- 2.4 Emergency Planning: Contractor shall have an emergency action plan that has been documented and communicated to all Contractor Personnel. The emergency action plan shall include, at a minimum, the following:
 - 2.4.1 Emergency contacts;
 - 2.4.2 Jobsite location(s) or addresses;
 - 2.4.3 Location, name, contact information, and directions to closest emergency services and medical facility;
 - 2.4.4 On Jobsite communication methods (cell phone, radio, satellite phone, etc.);
 - 2.4.5 Procedure to follow in the event of an emergency.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

- 3.1 Unless otherwise approved by Owner in writing, Contractor shall ensure that Contractor Personnel complete the training, as further described below, prior to being allowed to commence Work.
- 3.2 Work involving significant safety-related risk exposure ("High Risk Work") requires OSHA training. This High Risk Work includes, but is not limited to, Work: on or near energized equipment; within confined

spaces; at heights requiring fall protection; during adverse weather (storms); in radiologically contaminated areas; on or near high traffic (land, air, or water) areas; in or around ash ponds; that involves excavation permits; that involves cranes, rigging, or hoisting; that involves chemicals with National Fire Protection Association (NFPA) or Hazardous Materials Identification System (HMIS) rating of 4 in any category; or that involves asbestos, heavy metals, radiation, silica, chromium, or other harmful substances that requires special training.

- 3.2.1 All Contractor Personnel who are performing High Risk Work on Owner Jobsites shall successfully complete, at a minimum, the OSHA 10-Hour for General Industry or Construction Training OSHA Electric Transmission and Distribution (ET&D) Partnership 10-Hour Training, or have specific written approval from Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.
- 3.2.2 Before assuming a supervisory position, all Contractor Personnel Jobsite supervision for High Risk Work shall successfully complete the Occupational Safety and Health Standards for the General Industry or Construction Training ('OSHA 30-Hour'), OSHA Electric Transmission and Distribution (ET&D) Partnership 20-Hour Training, or have specific written approval from Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.
- 3.2.3 New Contractor Personnel on High Risk Work shall complete such training within fourteen (14) calendar days of starting their first Work assignment on any Owner Jobsite. If Contractor Personnel leave before training is complete, they may not return to the Jobsite until the training is complete.
- 3.2.4 Owner may also require additional OSHA training at Contractor's expense.
- 3.3 A minimum of two currently trained Contractor Personnel in First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') shall be present for each Jobsite unless specified otherwise in the Business Unit appendix.
- 3.4 All costs associated with the above-described training of Contractor Personnel shall be at the expense of Contractor.
- 3.5 Prior to entering Owner's Jobsite, all Contractor Personnel shall complete the AEP onboarding requirements, which may vary by Business Unit. This training takes approximately two (2) hours. All Contractor Personnel shall refresh such training on an annual basis prior to March 31st.
- 3.6 Owner may, at its sole discretion, require Contractor to repeat any training as a step towards remedying a Contractor's deficiency.

4.0 SAFETY & HEALTH PROFESSIONAL

- 4.1 Contractor's Jobsite Safety & Health Professional's sole responsibility and focus shall be safety and health oversight of the Work, specifically including, but not limited to, initiation, enforcement, maintenance, and administration of Jobsite safety and other loss prevention programs associated with Work.

- 4.2 The requirements for when Contractor shall provide one (1) or more Jobsite Safety & Health Professional(s) are in the Business Unit appendices, if applicable. Owner may require Contractor to assign additional Safety & Health Professional(s) if Owner determines the Work, Contractor's performance or other circumstances justify additional safety oversight.
- 4.3 Contractor shall ensure that each Jobsite Safety & Health Professional, at a minimum, has successfully completed OSHA 30-hour training and has one (1) of the following:
- 4.3.1 A professional safety certification from an industry recognized safety organization; or
 - 4.3.2 A college degree in a safety related field and at least two (2) years demonstrable safety management related experience; or
 - 4.3.3 At least five (5) years of increasing responsibility in professional, technical, safety management and/or electric utility operations experience.
- 4.4 In addition to the above, Contractor shall ensure that each Jobsite Safety & Health Professional has all of the following:
- 4.4.1 Current certification in administration of First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') Training
 - 4.4.2 Incident investigation training and experience.
- 4.5 Owner may request verification of qualifications, resumes, or other documentation for review. Owner reserves the right to reject a Jobsite Safety and Health Professional. Failure by Owner to review the qualifications of a Safety & Health Professional does not relieve Contractor of its obligations under the Contract.

5.0 COMMUNICATION

- 5.1 Contractor shall ensure that all Contractor Personnel clearly understand oral and written instructions, signs and labels associated with Work.
- 5.2 Contractor shall provide, at a minimum, two (2) multi-lingual Contractor Personnel that speak English for each non-English-speaking crew. When large crews are used, Contractor shall provide one (1) additional multi-lingual Contractor Personnel for every ten additional (10) crew members.
- 5.3 Contractor shall ensure multilingual Contractor Personnel are immediately available to support nursing, EMT responses to injuries or incidents, and during Site orientations. Contractor shall make sure their multilingual Contractor Personnel are easily identifiable by such means as the color of their hardhat, clothing, etc..., and inform Owner accordingly.
- 5.4 Contractor shall ensure, at least one (1) copy of all documents and reports, including Job Briefing Forms, are prepared in English.

6.0 WORK HOUR / WORK DAY LIMITATIONS

- 6.1 Contractor shall staff and plan in a manner that prevents Contractor Personnel from working more than sixteen (16) hours in a rolling twenty-four (24) hour period. After working sixteen (16) hours, a minimum of eight (8) hours off Work shall occur before returning to Work.
 - 6.1.1 For emergency assistance, the hour limitation is modified to a maximum of twenty-four (24) consecutive hours, after which a minimum of eight (8) hours off Work shall occur before returning to Work.
- 6.2 Contractor shall staff and plan in a manner that prevents Contractor Personnel from working more than thirteen (13) consecutive days without a twenty-four (24) hour period off Work.
- 6.3 Exceptions to the above requirements shall be requested by Contractor and be pre-approved in writing by the Owner’s Business Unit management level identified in the Business Unit appendices.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

- 7.1 During the term of the Contract, Contractor shall maintain an approved qualification status within VERO. If during the Contract term Contractor fails to maintain an approved qualification status within VERO, then, at Contractor’s cost and expense, and in addition to any other rights and remedies the Owner may have under the Contract or under the law, the Owner shall have the following rights:
 - 7.1.1 The right to apply a probationary period where all Work performed by Contractor is temporarily stopped until an investigation is performed;
 - 7.1.2 The right to stop the Work under the Contract until Owner is satisfied that the cause for the non-passing grade is remedied; and/or,
 - 7.1.3 The right to terminate the Contract for cause if, in Owner’s sole opinion, the grade cannot be improved to a passing level within a reasonable time.
- 7.2 Contractor shall only use AEP approved contractors (found in VERO) as Subcontractors. To initiate the process to utilize a Subcontractor that is not currently qualified by Owner in VERO, the Contractor shall have the Subcontractor join VERO and obtain an approved qualification status prior to any Subcontractor Work. Any exceptions to this must be approved in writing by Owner’s Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Subcontractor Work.
- 7.3 In the event Contractor chooses to use a Subcontractor(s) to perform Work at a Site without the Contractor present, Contractor shall ensure that such Subcontractor(s) has appointed a qualified and competent individual at the Site to be present at all times, to direct, and observe the Work.

8.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

- 8.1 Contractor Personnel shall wear, at a minimum, the following PPE while on any Jobsite:
 - 8.1.1 Safety glasses, goggles, or prescription safety glasses with side shields that meet the specifications of ANSI Z87.

- 8.1.2 Face shields, in addition to safety glasses or goggles, where employees are performing tasks that could potentially cause flying material objects such as, but not limited to, chipping, welding, grinding, cutting, drilling, chiseling, or chemical hazards to the face. The face shield shall be rated for the type and degree of hazard.
- 8.1.3 Hardhats that meet the specifications of ANSI Z89.1.
- 8.1.4 Work gloves that provide protection for the type of work, when required. See BU Appendices for specific work glove requirements.
- 8.1.5 Hearing protection as required by OSHA and in Owner-designated areas.
- 8.1.6 Footwear appropriate to the known Jobsite hazards:
 - 8.1.6.1 Open-toed, open-heeled, and athletic footwear shall be strictly prohibited;
 - 8.1.6.2 Protective toe footwear that meet the safety-toe specifications of ASTM F2413 with a compression rating of C75 (i.e. safety toe shoes);
 - 8.1.6.3 Contractor Personnel that climb shall wear footwear with a defined heel, unless waived by Owner's Representative in writing;
 - 8.1.6.4 Additional protection such as sturdy upper portions, metatarsal guards, puncture resistant soles, etc. may be required based upon the Job Briefing for certain Work assignments or special environmental conditions.
- 8.1.7 Fall protection: 100% fall protection required at all times on poles, towers and similar structures.
- 8.2 Contractor shall review arc flash potential with Owner's Representative to determine the appropriate PPE.
- 8.3 Contractor shall wear additional PPE if required by Owner based upon Contractor's PPE assessment or special environmental conditions.

9.0 INDUSTRIAL HYGIENE

9.1 Metals and Heavy Metals:

- 9.1.1 Unless directed otherwise, Contractor is responsible for personal industrial hygiene sampling when there are any contaminants that may pose an exposure hazard to Contractor Personnel (e.g. arsenic, lead, mercury, hexavalent chromium, cadmium, crystalline silica, etc.). Contractor shall provide copies of industrial hygiene test results to Owner.
- 9.1.2 Contractor must comply with Owner's Negative Exposure Assessment Guidelines in determining when PPE and regulated area requirements can be removed.
- 9.1.3 Owner requires regulated areas for all Work involving potential exposure to hexavalent chromium regardless of the type of Work conducted (General Industry or Construction). Owner's competent person for potential hexavalent chromium exposure shall be consulted regarding the appropriate size, location and demarcation of the regulated area.
- 9.1.4 Owner's respiratory protection and ventilation requirements for welding, cutting and other hot Work are defined in the Welding, Cutting and Brazing Policy (see VERO at <https://verodms.com>). Filtering face piece respirators may only be used on a voluntary basis (not OSHA required) and only

in areas where there will not be an exposure above the Permissible Exposure Limits (PEL). Filtering face piece respirators include any fabric "dust mask" type respirators with filter efficiencies from 95 through 100.

9.2 Lead/Cadmium Based Paint:

9.2.1 Structural steel and equipment throughout Owner's facilities may have been coated with lead/cadmium based materials including galvanizing. Contractor shall treat all surfaces as containing lead/cadmium unless tested otherwise prior to performing any grinding, welding, sanding, heating, sandblasting or similar activity. Owner requires that any coating containing lead at a level of 0.05% (500 ppm) or greater be treated as a lead-containing coating.

9.2.2 In nearly all cases, abatement of lead/cadmium-containing coatings is required before any hot Work may be performed. Owner has a specific Post Abatement Hot Work (see VERO at <https://verodms.com>) process that Contractors must follow to ensure either abatement is effective or that Contractor Personnel are properly protected while performing hot Work after abatement.

9.2.3 Contractor shall submit to Owner, prior to beginning Work, its written lead/cadmium compliance program.

9.2.4 Contractor shall collect all removed lead/cadmium bearing paint and contaminated materials used for the removal of lead/cadmium bearing paint. These materials shall be placed in Contractor supplied packaging meeting the applicable US Department of Transportation requirements for the material and properly labeled and stored per Owner instructions.

9.3 Asbestos Containing Material:

9.3.1 Asbestos-containing materials (ACM) may exist in the form of insulating products, siding, coatings, gaskets and similar materials throughout Owner's facilities.

9.3.2 Contractor shall conduct ACM awareness training to inform Contractor Personnel of the possibility of asbestos on the Jobsite and the appropriate response (STOP and report it immediately) if suspected asbestos-containing material is encountered.

9.3.3 Contractor shall use care and diligence in the execution of its Work to avoid the disturbance of, or damage to, asbestos-containing material not specifically identified as a part of the Work. This may include, but is not limited to, the installation of protective barriers, temporary platforms or any other means deemed necessary by Contractor to comply with this requirement. Contractor Personnel shall immediately report the observance of any ACM or presumed asbestos-containing material (PACM) that is not intact to their supervision for immediate response. Contractor shall immediately notify Owner of any disturbance of or damage to asbestos-containing material, PACM or unknown material. Contractor is responsible for ensuring that its personnel and the public are not exposed to ACM material due to Contractor's disturbance of or damage to the ACM.

9.4 Hazardous Materials Management:

9.4.1 "Hazardous waste" shall have the meaning found at 40 CFR 261.3 and shall also include polychlorinated biphenyls (PCB) as defined at 40 CFR 761.3. "Hazardous chemical" shall have the

meaning found at 29 CFR 1910.1200© and 40 CFR 355.61. “Hazardous Material” shall have the meaning found at 49 CFR 171.8.

- 9.4.2 Contractor shall have procedures for proper labeling, storing, and handling of hazardous chemicals and hazardous wastes in a safe and secure manner.
- 9.4.3 Contractor shall minimize the quantities of hazardous chemicals it intends to use and hazardous waste it expects to generate. Contractor shall keep Owner informed of all hazardous chemicals that Contractor brings on Site and all hazardous wastes generated and its disposal management practices. Hazardous materials shall be packaged and transported in accordance with applicable transportation regulations.
- 9.4.4 When applicable to Contractor’s Work, Contractor shall provide storage containers of adequate size and compatibility for both hazardous chemicals and hazardous wastes with adequate weather protection. Damaged or leaking containers are unacceptable.
- 9.4.5 See Owner’s Representative for Safety Data Sheets for Owner generated and supplied products.
- 9.4.6 Chemicals containing 1,1,1-Trichloroethane, methylene chloride, trichloroethylene, tetrachloroethylene (perchloroethylene), 1-bromopropane (N-propyl bromide), any confirmed human carcinogen, asbestos, lead or mercury will not normally be approved by Owner.

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

- 10.1 When performing excavation Work, Contractor shall comply with Owner’s excavation policy, including permits.
- 10.2 Contractor shall comply with the following regarding drilled excavations:
 - 10.2.1 Drilled excavations greater than thirty (30) inches in diameter and six (6) feet deep shall be protected by a guardrail system no less than six (6) feet from the edge of the excavation.
 - 10.2.2 Contractor Personnel who enter the guardrail system shall be protected from falling by a personal fall arrest system.
 - 10.2.3 When performing drilled excavations, Contractor shall have a fall retrieval plan, which includes local EMS rescue capabilities.
- 10.3 Contractor shall comply with AEP’s Confined/Enclosed Space Entry Policy including classification and monitoring tools, permits, and checklists. With prior review by Owner’s Representative, Contractor may use its confined or enclosed space entry procedure in accordance with article 9.3 of the AEP Confined/Enclosed Space Entry Policy. Furthermore, through coordination with the Owner’s Representative, there may be multiple permits for the same Work if there are multiple contractors in the same area or the Contractor is legally required to have documents for their own purposes. If multiple permits are used, the classifications must be the same or the higher of the two (2) classifications must be used for all permits.
- 10.4 Barricades shall be used to deter the passage of persons, vehicles, and equipment from restricted areas. Contractor shall routinely inspect and replace signage, labeling and barricade tape that is illegible, damaged, missing, etc.

- 10.5 Contractor shall comply with the following regarding the use of mobile cranes and lifting devices (for energized Work involving digger derricks and bucket trucks, see Business Unit appendices Section 3 instead):
- 10.5.1 Operators shall perform and document daily equipment inspections. Inspections shall include all safety and operational features as per manufacturer's safe operating manual or guidance.
 - 10.5.2 Qualified observers shall be assigned if any equipment will encroach within the trigger distance of energized overhead lines and equipment; or if any part of the equipment, boom, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius, could encroach the trigger distance to energized lines or equipment. All Work activities shall be stopped when the qualified observer becomes unavailable, even only temporarily.
 - 10.5.3 No person shall be permitted within the barricaded radius of a crane while the crane is in operation.
 - 10.5.4 No person shall ride on equipment when in operation.
 - 10.5.5 Cranes shall be equipped with an Anti-Two-Block device.
- 10.6 All Work performed on or adjacent to existing public roads or rights-of-way shall be performed in conformance to the requirements of the Manual on Uniform Traffic Control Devices (current revision), state, local jurisdiction or AEP operating company.
- 10.7 Contractor shall keep all substation gates closed and locked at all times unless under direct observation by an attendant.
- 10.8 Upon entry or exit of a substation, Contractor shall notify the appropriate Dispatch Authority.
- 10.9 Testing of Grounds – All grounds shall be tested in accordance with state, local, and federal guidelines, and the most current ASTM F2249 Standard Specification for In-Service Test Methods for Temporary Grounding Jumper Assemblies Used on De-Energized Electrical Power Lines and Equipment.
- 10.10 All extension cords and electric hand tools shall be plugged into a Ground-Fault Circuit interrupter (GFCI) provided by the Contractor. Contractor Personnel shall not rely on the existing GFCI receptacles on the Jobsite.
- 10.11 Unless Contractor's Welding, Cutting, and Brazing policy is approved in writing by Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall comply with Owner's Welding, Cutting, and Brazing policy.
- 10.12 Unless Contractor's Attentive Driving policy is approved in writing by Owner's Corporate Safety and Health Director and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall follow Owner's Attentive Driving Policy while performing Work for Owner.
- 10.13 Backing motor vehicles should be avoided wherever possible, such as by taking pull through opportunities. If backing cannot be avoided employees should back upon arrival. A second employee, if present, shall be used as a Spotter while backing.
- 10.14 Contractor shall follow Owner's Workplace Aggression and Police Escort Required Policies.

11.0 TOOLS

- 11.1 Prior to the use of any fabricated or modified tools with no original equipment manufacturer, Contractor shall notify Owner and provide for Owner's review design documentation with professional engineer stamped approval. At its sole discretion, Owner may prohibit or restrict Contractor's use of such tools.
- 11.2 Pocket knives or non-safety utility knives shall not be used for cutting/stripping unless it is impossible to utilize another tool designed for that task. Not having the proper cutting tool available on site is not an excuse for using knives. Cutting tools other than a knife, i.e. wire cutters/strippers, side cutters, snips and other cutting tools shall always be used first. A safety utility knife with an automatic retracting blade or other means of blade protection would be the second selection. The use of a company issued pocket knife or non-safety utility knife is only permitted if a safety utility knife or other cutting tool cannot be used. The second and third option (knives) can only be used in combination with wearing appropriate hand protection, as determined by the Job Briefing.
- 11.3 No handheld grinder shall be used with a switch that is capable of being locked in the "ON" position unless a hazard analysis determines it is safer. Handheld grinders 4 1/2" thru 6" shall be equipped with a safety clutch to aid in preventing kickback and potential personal injury to the user. Contractor(s) shall have a grinder control procedure established to assure that when grinders are being used for either grinding or cutting, front line supervision has determined that a grinder is the safest tool for the Work.

12.0 REPORTING REQUIREMENTS

- 12.1 Event Reporting: Contractor shall report to Owner all Contractor Personnel safety-related events in accordance with the applicable AEP General Terms and Conditions and the requirements listed below. Safety-related events include but are not limited to the following:
 - 12.1.1 near miss events
 - 12.1.2 good catches
 - 12.1.3 first aid and minor events
 - 12.1.4 OSHA recordable injuries
 - 12.1.5 Flashes
 - 12.1.6 Outages
 - 12.1.7 vehicle incidents
 - 12.1.8 spills/releases that cause safety concerns
 - 12.1.9 underground utility strikes
 - 12.1.10 energy control errors (Clearance Permit, Lock Out Tag Out (LOTO), and Switching and Tagging)
 - 12.1.11 regulatory safety citations/visits
 - 12.1.12 property damage
 - 12.1.13 equipment incidents
- 12.2 After securing the scene, Contractor shall immediately notify Owner's Representative(s) (verbal notification is sufficient) of the event. Do not disturb the scene of an incident unless necessary to attend to injured persons

or to prevent additional injury, property damage or loss. If the incident involved a personal injury requiring more than first aid treatment, or significant equipment or estimated property damage in excess of \$10,000, Work may not resume and no items at the scene may be moved or discarded until authorized by Owner or other legal authority.

- 12.3 By 8:00 a.m. the following calendar day, Contractor shall submit a preliminary notification to Owner’s Representative(s) using VERO (<https://verodms.com>).
- 12.4 Contractor shall submit a detailed written report within five (5) calendar days, unless granted an extension by Owner. This report must be submitted via VERO following Owner’s report format and instructions.
- 12.5 Monthly Reporting: Contractor shall submit monthly reports to Owner that include at minimum, the following::
 - 12.5.1 monthly Work hours
 - 12.5.2 fatalities
 - 12.5.3 OSHA recordable incidents, including lost time and restricted days
 - 12.5.4 preventable vehicle incidents
 - 12.5.5 first aid injuries
 - 12.5.6 good catches and near misses
 - 12.5.7 flashes
 - 12.5.8 outages
- 12.6 Contractor shall report the above listed information by the 4th Business Day of the calendar month via VERO (<https://verodms.com>).

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

- 13.1 Owner or Owner’s Representative may conduct random Jobsite safety and health observations and audits. Contractor shall cooperate fully with Owner’s Representatives during a Jobsite observation or audit.
- 13.2 In the event Owner determines that an unsafe condition exists at the Jobsite, Owner shall have the absolute right to require corrective measures be immediately taken or to stop Work until the unsafe condition is corrected by Contractor. Contractor may be responsible for costs and expenses associated with the corrective measures.

14.0 CONTRACTOR JOBSITE OBSERVATIONS

- 14.1 Contractor representatives, at a minimum, shall perform and document a Job Site Observation (JSO) based on the following table:

Contractor Representative	Minimum Frequency ¹
Front line leader (ex. Foreman/Crew Leader)	Weekly ²
Site Management (ex. General Foreman/Superintendent)	Weekly ²
Safety & Health Professional	Daily ³
Operations Manager	Monthly
Senior Management	Quarterly

Notes:

1. Minimum frequency is the frequency with which the Contractor representative performs a JSO and can be on one or more Contractor crews and/or Sites.
2. For Generation work, see the Generation Appendix for frequency and documentation method.
3. See Transmission, Distribution, and Vegetation Management Appendices for additional guidance.

15.0 PROHIBITED FROM JOBSITE

- 15.1 Firearms, alcohol, illegal drugs, or drugs taken for non-medicinal purposes are prohibited on all Owner Jobsites.
- 15.2 Contractor shall be responsible for all Contractor Personnel who are under the care of a physician and are taking medicine that may alter the employee's physical or mental ability. Contractor shall determine the necessity to modify the employee's job assignment while undergoing such treatment.
- 15.3 If prohibited firearms or suspected illegal drugs are discovered on any Owner's property or Jobsite, whoever discovers the firearms or suspected illegal drugs shall:
 - 15.3.1 First, if possible without putting themselves or others in harm's way, attempt to secure the location and ensure that others cannot come in contact with the firearms or suspected illegal drugs. Do not handle or move firearms or suspected illegal drugs from their discovered location.
 - 15.3.2 Second, immediately contact Owner's Representative and jointly make a decision whether or not the situation requires a call to the local law enforcement authorities. Immediately call the local law enforcement authorities and report the discovered item(s) if (a) neither Owner's Representative is available; (b) there is a threat of harm to any person; or (c) there is a risk of improper removal or disposal of the firearms or illegal drugs.
 - 15.3.3 Third, call local Owner's security personnel or call Owner's general Security hotline at 1-866-747-5845.
 - 15.3.4 Fourth, for incidents involving Contractor personnel, Contractor shall submit a report(s) to Owner.
- 15.4 Prior to starting Work, Contractor shall provide Owner a list of all Contractor Personnel that Contractor intends to use on Jobsite. The list shall identify the individuals by their name and the last three digits of the individual's Social Security Number.
- 15.5 Owner will identify any personnel the Contractor intends to use that are restricted from Owner's Jobsite. Owner, at its sole discretion, may deny access to any individual who has previously been removed from a Jobsite by Owner or any Contractor for any reason.
- 15.6 Contractor may request restricted Contractor Personnel to be cleared for Work performance. A letter addressing the original safety violation(s) or reason(s) for removal and including any documentation supporting the request shall be sent to Owner for approval. Contractor Personnel shall not perform Work at any of Owner's Jobsites until approved by Owner. Said approval may be granted or withheld at Owner's sole discretion.

- 15.7 Owner may deny access to its Jobsites to any person who fails to comply with the applicable AEP General Terms and Conditions, these Supplemental Safety Terms and Conditions, or, in Owner's sole judgment, otherwise demonstrates unsafe or unacceptable behaviors. Examples of unsafe or unacceptable behaviors include, but are not limited to:
- 15.7.1 Unsafe job performance
 - 15.7.2 Failure to pass drug/alcohol test
 - 15.7.3 Refusal to submit to a drug/alcohol test
 - 15.7.4 Displaying incompetence in performing their job
 - 15.7.5 Employees that are determined to be unfit for project employment
 - 15.7.6 Participating in pranks, horseplay, or practical jokes
 - 15.7.7 Failure to report injuries and/or accident
 - 15.7.8 Making threats, harassing, intimidating, fighting, or committing acts of aggression
 - 15.7.9 Theft or vandalism
 - 15.7.10 Insubordination
 - 15.7.11 Violation of AEP's Universal Life Saving Rules
- 15.8 Contractor shall immediately provide Owner with the name of any Contractor Personnel removed by Contractor from Owner's property and the reason(s) for his or her removal.
- 15.9 If a worker(s) has a union affiliation, Contractor shall promptly notify the appropriate local union hall of such worker's removal from Owner's property and the reason(s) for his or her removal.

16.0 AEP POLICIES AND PROCEDURES

- 16.1 AEP Policies and Procedures that the Contractor shall comply with per the AEP General Terms and Conditions and these AEP Safety and Health Supplemental Terms and Conditions can be found in VERO (<https://verodms.com>).
- 16.1.1 Excavation Policy
 - 16.1.2 Lead Exposure Control Post-Abatement Hot Work Procedures
 - 16.1.3 Negative Exposure Assessment (NEA) Guidelines
 - 16.1.4 Scaffolding Safety Procedure
 - 16.1.5 Welding, Cutting and Brazing Policy
 - 16.1.6 Confined Enclosed Space Entry Policy
 - 16.1.7 Attentive Driving
 - 16.1.8 Police Escort Required Policy
 - 16.1.9 Workplace Aggression Policy
 - 16.1.10 AEP's Universal Life Saving Rules

17.0 DEFINITIONS AND ABBREVIATIONS

- 17.1 **AEP** means any one or more of the companies of the American Electric Power System as may be specified in the Contracting Instrument to the Contract and means same as Owner as defined in the applicable AEP General Terms and Conditions.
- 17.2 **AEP General Terms and Conditions** means the applicable AEP general terms and conditions referenced in the Contract which may be one of the following: AEP General Terms for Labor and Services; AEP General Terms and Conditions for Engineering, Procurement and Construction Work; Electric Transmission Texas (ETT) General Terms and Conditions for Labor and Services; OVEC/IKEC General Terms for Labor and Services; or OVEC/IKEC General Terms and Conditions for Engineering, Procurement and Construction Work (as amended from time to time).
- 17.3 **Business Unit (BU)** means for the purposes of these AEP Safety and Health Supplemental Terms and Conditions, a division of AEP that is responsible for providing a product line or service area to the affiliated companies of the American Electric Power System separately identified so each line or service area is considered a business [For purposes of these AEP Safety and Health Supplemental Terms and Conditions: AEP Distribution, AEP Vegetation Management, AEP Generation, AEP Telecom, AEP Transmission, and AEP Workplace Services].
- 17.4 **Contractor Personnel** means all employees, crews, workers, and agents of Contractor and all Subcontractors and its employees, crews, workers, and agents involved in the performance of Work.
- 17.5 **Job Briefing Form** means a document used to identify hazards, procedures, precautions, and mitigating actions to facilitate a pre-Job safety discussion and safely complete the Work as provided to Contractor by Owner, or provided by Contractor, but in accordance with all OSHA requirements.
- 17.6 **Jobsite** means a Site where the Work shall be performed.
- 17.7 **Negative Exposure Assessment Guidelines** means an exposure assessment that, with a high degree of certainty, shows exposures are expected to be less than the Permissible Exposure Limit, as defined in 17.10 (or other appropriate exposure guideline).
- 17.8 **OSHA Electric Transmission and Distribution (ET&D) Partnership** means OSHA Strategic Partnership Agreement between the Occupational Safety and Health Administration and The Electrical Transmission and Distribution Construction Contractors, The International Brotherhood of Electrical Workers (the IBEW), and Trade Associations.
- 17.9 **Owner's Representative** means the Jobsite or Business Unit representative identified in the contract as the point of contact for the Work.
- 17.10 **Permissible Exposure Limits (PEL)** means the minimum legal limit as set by either local, state, or federal law in the United States for exposure of an employee to a chemical substance or physical agent.
- 17.11 **Safety & Health Professional** means a trained and competent person focused on identifying workplace hazards, mitigation actions, and the prevention of workplace injuries.
- 17.12 **Site** means the definition as stated in the applicable AEP General Terms and Conditions.
- 17.13 **Work** means the definition as stated in the applicable AEP General Terms and Conditions

18.0 REVIEW AND REVISION HISTORY

DATE	REVISION #	COMMENTS	REVIEWER
10/1/2019	0	Initial Issue	Contractor Safety Management Technical Committee
12/18/2020	01	Added Appendix G: AEP Energy Supply	Energy Supply, Energy Supply Safety & Health, Corporate Safety & Health, and AEP Legal

Appendix A: Distribution

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix A: Distribution (this "Appendix") while performing Work for Owner's Distribution Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

1.0 INTRODUCTION

NONE

2.0 SAFETY & HEALTH PLANNING

2.2 Job Briefings:

2.2.1.1 Attachment: Owner's Job Briefing Form

2.3 For Distribution Work a WSHP will not typically be required. For unique long-duration Distribution projects, a WSHP may be required. Owner will specify any Work where a WSHP is required.

2.4 Emergency Planning: Emergency planning information shall be documented on the Job Briefing Form. Contractors shall contact the Distribution Dispatch Center in any case of emergency.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

3.7 Qualified and Non-Qualified Electrical Employees

3.7.1 Qualified Electrical Employee

3.7.1.1 Owner requires that qualified electrical Contractor crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29 CFR 1926 Subpart V.

Owner requires that qualified electrical Contractor crew members involved in the

3.7.1.2 Operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more) will be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or "Qualified Employee" as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all-inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;

- 3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee will be exposed;
- 3.7.1.3.4 Training to recognize and avoid electrical hazards;
- 3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the work, and;
- 3.7.1.3.6 The proper use of special precautionary techniques, personal protective equipment/clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.
- 3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at the all times. Contractor crew members shall only perform Work at the level for which they are qualified.
- 3.7.1.5 At Owners request, Contractor shall supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.1.6 Contractor shall maintain a list of Qualified Employees able to work on or near primary, able to serve as a qualified observer and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.
- 3.7.1.7 Contractor shall ensure that its Qualified Employees have the appropriate training to perform the Work.
- 3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require Contractor Personnel to repeat training.
- 3.7.2 Non-Qualified Electrical Employee
 - 3.7.2.1 Contractor shall provide training for non-qualified electrical Contractor Personnel for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles). Contractor shall provide training for non-qualified electrical Contractor Personnel who will be working near energized lines or equipment energized at 50 volts or more (i.e., civil contractors, laborers, locators, pole treatment/inspection, etc.). All direct and indirect costs of this training are Contractor's sole responsibility.

- 3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical work. A Non-Qualified Employee must be trained and competent in (list not all-inclusive):
 - 3.7.2.2.1 Understanding of electrical hazards;
 - 3.7.2.2.2 Electric shock;
 - 3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they will be entering;
 - 3.7.2.2.4 Hazard Reporting;
 - 3.7.2.2.5 The maximum voltage of the area/equipment;
 - 3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and;
 - 3.7.2.2.7 Recognition and proper use of protective equipment that will be used to provide protection and in the work practices necessary for performing their specific work assignments while working near energized lines or equipment energized at 50 volts or more.
- 3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Non-Qualified Employees demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.2.4 Contactor shall ensure that Non-Qualified Employees and Subcontractor(s) Non-Qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that Non-qualified employees do not engage in any Work prior to completing the relevant training.

3.8 Qualified Observer

- 3.8.1 A qualified observer (“Qualified Observer”) is required for any period while Contractor Personnel are performing Work by utilizing insulated gloves on conductors or equipment above six-hundred (600) volts to ground. The Qualified Observer must be positioned on the ground and shall be trained and prepared to perform emergency rescue procedures, if necessary (Emergency tasks that are necessary to safeguard the public are exempt from requiring Qualified Observer).
- 3.8.2 In addition to OSHA requirements, Qualified Observer shall:
 - 3.8.2.1 Understand the work being observed
 - 3.8.2.2 Be capable of identifying nominal voltages, energized components, minimum approach distances, adequacy of cover-up, and proper safe work practices and PPE/PIPE associated with the work

- 3.8.2.3 Have sufficient understanding of the work, to the extent that they can identify errors that could result in injury, so they can alert the person(s) being observed before possible injury occurs
- 3.8.2.4 Be identified by name on Job Briefing Form
- 3.8.2.5 Apprentice 4 will be the lowest classification that can serve as a Qualified Observer
- 3.8.3 Apprentice 4 is one that meets the following criteria: Apprentices can work on secondary voltages up to 600 volts under general supervision. Apprentices may operate cutouts, line switches, recloses, and other sectionalizing devices under direct supervision. Apprentices may also refuse line and transformer devices, test de-energized lines and equipment and remove grounds under direct supervision.
- 3.8.4 Person in charge of Work Site, with agreement of the worker being observed shall make the final determination if an individual Contractor Personnel is suitable to be a designated “Qualified Observer”.
- 3.8.5 Qualified Observer shall bare a special marking (i.e. arm band, patch, visible label, etc.), clearly identifying them as “Qualified Observer”.
- 3.9 Additional training and qualification requirements:
 - 3.9.1 The following list (not all-inclusive) of Work shall be used as a guide in order to help the Contactor ensure its Contractor Personnel are properly trained, competent, or qualified to perform such Work:
 - 3.9.1.1 Digger Derrick & Bucket Truck operation
 - 3.9.1.2 Qualified Electrical
 - 3.9.1.3 Energy Isolation and Temporary Grounding
 - 3.9.1.4 Confined or Enclosed Space
 - 3.9.1.5 Horizontal Directional Drilling operation
 - 3.9.1.6 Excavation & Trenching
 - 3.9.1.7 Scaffolding
 - 3.9.1.8 Personal Protective Equipment (PPE)
 - 3.9.1.9 Department of Transportation requirements
 - 3.9.1.10 Line Clearance Tree Trimming operation
 - 3.9.1.11 Cranes & Rigging
 - 3.9.2 Contractor may be required to complete Owner operating company specific training such as switching and tagging and customer service training. Owner will specify when this is required and reimburse Contractor for the cost of such training.

4.0 SAFETY AND HEALTH PROFESSIONAL

4.2 When Contractor has twenty (20) or more total Contractor Personnel on various projects within individual Owner operating companies, Contractor shall have a full-time, Dedicated Safety Professional assigned to ensure Contractor's safety program is being enforced. An additional Dedicated Safety Professional shall be assigned for every increase of fifty (50) Contractor Personnel or two (2) hours of drive time on Owner property. When Contractor has ten (10) or less total Contractor Personnel on various projects within individual Owner operating companies, Contractor shall at minimum visit the various Sites or Work crews weekly to ensure Contractor's safety program is being enforced.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Incident Commander of the event or the Manager of the department responsible for the Work.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.2 Arc Flash Policy

8.2.1 Contractor Personnel who perform Work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than Owner's incident energy. Additional personal protective equipment, such as Fire Retardant rated face shields and balaclavas, shall be worn by Contractor Personnel, when Contractor Personnel are exposed to arc flash hazards in excess of the minimum requirements set forth in following table (Table 1).

Table 1

Minimum Head and Face Protection		
Equipment Required	Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm ² *	Arc-Rated Hood or Faceshield with Balaclava
Single-phase, open air	9 – 12 cal/cm ²	13 cal/cm ² or higher**
Three phase	5 – 8 cal/cm ²	9 cal/cm ² or higher***

*These ranges assume that employees are wearing hardhats meeting the specifications in 1910.135 or 1926.100(b)(2), as applicable.

**The arc rating must be a minimum of 4 cal/cm² less than the estimated incident energy; note that 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/cm² less than the estimated incident energy, at any incident energy level.

***Note 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.

- 8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review owner’s incident energy prior to start of Work.
- 8.2.3 All Contractor Personnel that are covered under these Safety and Health Supplemental Terms and Conditions shall dress in his or her arc rated clothing prior to arrival on Site.
- 8.2.4 In addition to the requirements as outlined by OSHA and per Owner’s policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
 - 8.2.4.1 When working within the minimum approach distances;
 - 8.2.4.2 When determined by incident energy analysis;
 - 8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;
 - 8.2.4.4 When performing hot-stick work;
 - 8.2.4.5 When bonding or working “bare hand method”;
 - 8.2.4.6 When grounding conductors or equipment;
 - 8.2.4.7 When testing lines or equipment to be de-energized;
 - 8.2.4.8 When performing switching operations;
 - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
 - 8.2.4.10 When disconnecting or connecting testing meters;
 - 8.2.4.11 When a Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
 - 8.2.4.12 When in a substation, unless labeled or identified as being different, arc flash boundary to exposed, energized parts is fifteen (15) feet. Also, specific to equipment inside a control

house and unless labeled or identified as being different, arc flash boundary to exposed parts energized from 50 V to less than 300 V is 3 feet 6 inches.

8.2.5 In addition, Contractor Personnel shall comply with the following:

8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.

8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.

8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing, but shall be free from stains or flammable products, screen printing, iron-on transfers, paint, etc.

8.3 All workers within the right-of-way who are exposed to either traffic or work vehicles must wear the appropriate high visibility vest.

9.0 INDUSTRIAL HYGIENE

9.2 Lead is also present throughout Owner's underground facilities (i.e., lead splicing).

9.3.3 Prior to the commencement of Work, both Owner and Contractor shall determine the presence and form of ACM. If ACM is determined to be present, Contractor shall submit a plan to Owner, outlining the appropriate measures Contractor will take while either working around ACM or in the abatement of ACM. Said plan shall be approved by Owner prior to the commencement of Work, and in accordance with Owner's policies including the proper disposal of ACM at Owner's approved waste disposal sites.

9.5 Owner requires any Work task involving Crystalline Silica, such as concrete sawing or drilling, is evaluated by Contractor to determine Contractor Personnel protective controls.

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

10.4 Barricading

10.4.1 Hazardous voltages will exist on equipment should conductive portions inadvertently come in contact with energized conductors during the course of Work. These voltages are extremely harmful if not fatal should Contractor Personnel come in contact with the vehicle or equipment during this time. The barricade is erected to ensure that Contractor Personnel do not come in contact with the vehicle or equipment during that time. Traffic cones and ropes may be used as an alternative in special circumstances. The barricading rope shall encompass all conductive attachments that extend

from the vehicle or equipment whenever possible. If this arrangement cannot be accomplished, then other measures must be taken to ensure the security of this vehicle.

- 10.4.2 Derricks and Aerial devices shall be barricaded to prevent Contractor Personnel on the ground from falling objects or touching the aerial device in the event of an accidental contact with energized conductors. The barricaded area shall also be extended beyond temporary ground rod or anchor, if applicable. Contractor Personnel shall not lean across the barricade to access the vehicle while the barricade is in place. When the barricaded area needs to be entered the observer shall confirm that all Work aloft is stopped. They shall communicate with the operator who shall position the derrick or aerial device at minimum ten (10) feet from energized conductors and stop operation while the Contractor Personnel accesses the vehicle. In this situation, the Contractor Personnel accessing the vehicle shall lower the barricade to access the truck and leave it down until no further contact is necessary, Contractor Personnel shall then reinstall the barricade and communicate with the operator that it is safe to resume Work. Work will only restart after the observer has confirmed that the barricaded area is clear.
- 10.4.3 Before the barricade is installed, a fire extinguisher, a pair of rubber gloves and sleeves, gaffs, climbing belt and fall arrest equipment (for climbing jobs and aerial devices without rescue), handline, rubber blanket (with aerial device), fire resistant clothing, and any additional tools and equipment needed for the job shall be removed from the vehicle or equipment and placed in an accessible location outside the barricaded area.
- 10.4.4 Barricades shall be installed encompassing all four corners of a vehicle or equipment separated from the vehicle or equipment by non-conductive supports and demarcated by highly visible Danger rope and Danger warning signs to align with degree of hazard attached to those supports or rope.
- 10.4.5 The following are primary examples of vehicles and equipment where barricading is required – this list is not all inclusive:
 - 10.4.5.1 Bucket trucks
 - 10.4.5.2 Digger derricks
 - 10.4.5.3 Wire puller/tensioner
 - 10.4.5.4 Directional boring machines
 - 10.4.5.5 Backyard machines
- 10.15 Additional requirements:
 - 10.15.1 Cable Verification – Immediately prior to cutting any control cable, Contractor Personnel shall have a Contractor Personnel verify that it is the proper cable and that it is de-energized.
 - 10.15.2 Guard Structures – All hotline crossings and all road crossings shall be protected by the use of a guard structure. Guard structures (including equipment used as guard structures) shall be installed prior to disconnecting the conductor and shall remain in place until the conductor is clipped in.

10.15.3 Placement of Grounds – The location of all grounds on Owner’s property shall be tracked and documented by Contractor. Grounds shall be installed and removed maintaining minimum approach distance. Grounds shall be inspected prior to each use. All Grounds shall be flagged.

10.15.4 Hose Safety Whip Checks - Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

10.15.5 Hot Boards

10.15.5.1 When working by the insulating gloves method from the pole on conductors or equipment that is energized at phase-to-ground voltages greater than as defined by Owner’s Operating Unit or phase-to-phase voltages greater than as defined by Owner’s Operating Unit, an insulating (or insulated) working surface shall be used. When working from the insulating work platform, care must be taken to isolate the employee from the pole by using an insulated fall protection device or rubber blanket to isolate the employee’s belt from the pole.

10.15.5.2 The purpose of the insulating platform (hot or buck board) is to isolate the Contractor Personnel from conductive objects at ground potential such as the pole, pole grounds and other hardware. Special care should be exercised to be aware that contacting anything that is grounded will defeat the insulation of the hot board.

10.15.5.3 When working from a hot board, all wires and materials that are grounded or operating at a different voltage from the line or equipment being worked on shall be covered with appropriate cover up material.

11.0 TOOLS

NONE

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

NONE

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 DISTRIBUTION POLICIES AND PROCEDURES

NONE

17.0 DEFINITIONS AND ABBREVIATIONS

NONE

Appendix B: Vegetation Management

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix B: Vegetation Management (this "Appendix") while performing Work for Owner's Forestry Business Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

1.0 INTRODUCTION

NONE

2.0 SAFETY & HEALTH PLANNING

2.2 Job Briefings:

2.2.1.1 Attachment: Owner's Job Briefing Form

2.3 For Vegetation Management Work, a WSHP will not typically be required. For unique long-duration projects, a WSHP may be required. Owner will specify any Work where a WSHP is required. Furthermore, Contractor may be required to submit an annual safety plan that addresses such things as safety culture, incident and injury prevention, a "good catch" program, jobsite observation frequencies, and upcoming safety related initiatives.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

3.2 OSHA Training

3.2.1 Until OSHA 10 or equivalent training is developed to be specifically applicable to the vegetation management industry, vegetation management Contractors are exempt from this requirement.

4.0 SAFETY AND HEALTH PROFESSIONAL

4.2 When Contractor has twenty-five (25) or more total Contractor Personnel on various projects within an operating company, Contractor will provide a dedicated Safety and Health Professional (safety manager) to visit the various Work Sites and Work crews to ensure that Contractor's safety program is enforced. An additional full-time dedicated Safety and Health Professional (safety manager) must be provided when Contractor Personnel performing Work for Owner exceeds 250 employees, and for every multiple of 250 Contractor Personnel thereafter.

4.2.1 When Owner requires Contractor to provide Safety and Health Professional(s) in excess of the Contractor safety manager requirements stated above, such Safety and Health Professional position will only be billable for time directly associated with Contractor's Work for Owner.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

6.3 Exceptions to the above requirements shall be requested by Contractor and be pre-approved in writing by Owner's representative at the Director or Regional Manager level or above.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1.2 Vegetation management Contractor Personnel are not required to use face shields in the performance of his or her Work.

8.1.4 Vegetation management Contractor Personnel shall be exempt from any work glove requirement.

9.0 INDUSTRIAL HYGIENE

NONE

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

10.5 Vegetation management Contractor Personnel shall comply with the most recent revision of the American National Standard for Arboricultural Operations – Safety Requirements (ANSI Z133) when operating mobile cranes and lifting devices as part of his or her Work.

11.0 TOOLS

NONE

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

14.1 If Contractor does not have a dedicated Safety & Health Professional, then Contractor's Operations Manager must perform and document a Job Site Observation (JSO) weekly.

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 VEGETATION MANAGEMENT POLICIES AND PROCEDURES

16.1.10 In addition to the requirements in the AEP Safety and Health Supplemental Terms and Conditions and this Appendix, Contractor and Contractor Personnel shall follow AEP Forestry: Vegetation Management Goals, Procedures & Guidelines for Distribution and Transmission Line Clearance Operations in the performance of Work.

17.0 DEFINITIONS AND ABBREVIATIONS

NONE

Appendix C: Generation

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix C: Generation (this "Appendix") while performing Work for Owner's Generation Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

1.0 INTRODUCTION

- 1.6 For Mine Safety and Health Administration (MSHA) regulated facilities, Contractor shall comply with the Federal Mine Safety and Health Acts of 1977 and any revisions, amendments, and successor legislation to the extent governing and applicable to the Work. To the extent that this Contract (and particularly within the AEP Safety and Health Supplemental Terms and Conditions herein) references an OSHA definition or requirement(s) and there is an MSHA definition or requirement(s) that is reasonably comparable to such OSHA definition or requirement, then the comparable MSHA requirement shall control, if MSHA has jurisdiction over the referenced subject matter or location. To the extent that this Contract requires compliance to OSHA requirements for which there are no comparable MSHA requirements, or to the extent that this Contract imposes safety and health requirements for which there are no comparable OSHA or MSHA requirements, and which are applicable to the subject matter or location, Contractor shall comply with the strictest of: (i) the OSHA requirement; (ii) any applicable Owner requirement; or (iii) any applicable Contractor rule or procedure.

2.0 SAFETY & HEALTH PLANNING

- 2.2 Job Briefings:
- 2.2.1 In the preparation of the Job Briefing, Contractor shall consult applicable Job Hazard Analysis (JHA's) that may exist for the Work.
- 2.2.1.1 Attachment: Owner's Job Briefing Form
- 2.3 WSHP: Owner will provide Contractor with Owner's completed Pre-Work Hazard Assessment (PWHA) which identifies hazards associated with the Work along with requirements for additional planning (i.e. direction on whether Contractor has to complete a WSHP and/or Job Hazard Analysis (JHA). Contractor shall consider the PWHA and understand that the PWHA is informational for initial planning purposes only. The PWHA does not relieve Contractor of its obligation to conduct its own hazard assessments of the Work.
- 2.3.1 Attachment: Owner's WSHP Form
- 2.5 Additional Safety Planning Requirements:
- 2.5.1 Job Hazard Analysis (JHA)
- 2.5.1.1 If Owner requires a WSHP, Contractor shall prepare a JHA in accordance with its WSHP. Where a WSHP is not required, Contractor shall prepare a JHA for the planned Work subject to review by Owner prior to starting Work.

2.5.1.2 Owner reserves the right to require Contractor to prepare additional JHAs. Contractor shall use and update JHAs to consistently apply proper safeguards. All JHAs are subject to review by Owner.

2.5.1.3 The WSHP and JHAs shall be signed by the Work Site superintendent to ensure clear understanding of the safety and health plans at the local level.

2.5.1.4 Attachments: Owner's JHA Form

2.5.2 As an aid in performing hazard assessments, some Sites may require each Contractor Personnel to document their assessments using Owner-supplied checklists or equivalent means such as a STAR Card.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

3.3 The number of Contractor Personnel trained in First Aid, Cardiopulmonary Resuscitation ('CPR') and Automated External Defibrillator ('AED') will be mutually agreed upon by Owner and Contractor during the RFX process based on Work scope and crew size.

3.7 Additional training and qualification requirements:

3.7.1 For Mine Safety and Health Administration (MSHA) regulated facilities, Contractor is responsible for the cost of all MSHA Surface Certification, New Miner, and Miner Refresher Training.

3.7.2 Some Sites may require supervision to attend Owner's "Supervisors' Responsibilities and Expectations Briefing" program. If required, the program must be completed within two weeks after arrival at Owner's Site and takes approximately one hour. Owner will reimburse Contractor the cost of Contractor Personnel attending this training if required.

4.0 SAFETY AND HEALTH PROFESSIONAL

4.2 Contractor shall provide an on-Site full-time Safety and Health Professional for each shift of Work in which the total of craft Contractor Personnel exceeds 40 personnel with an additional Safety and Health Professional for each additional 40 craft Contractor Personnel.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Owner's Director or Plant Manager of the organization responsible for the Work.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1.4 Attachment: Generation Glove & Sleeve Selection Matrix

8.1.6 Footwear: With the exception of site office buildings, Contractors personnel shall follow the footwear requirements unless owner agrees with Contractor's WSHP or JHA that justifies less or more stringent requirements.

8.2 Attachment: Arc Flash Protection Policy

9.0 INDUSTRIAL HYGIENE

NONE

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

10.4 Attachment: Barricade Tape and Flagging Guideline

10.14 Additional requirements:

10.14.1 Attachment: Clearance Permit Policy, Procedure, and Form

10.14.2 Attachment: Floor and Wall Opening Permit Procedure

10.14.3 Attachment: 15 ft. Scaffold Access

10.14.4 Attachment: C.OI-730.12.02 – Electric Lines and Equipment Clearance (PC&C)

10.14.5 Attachment: Lifting and Rigging (Plant / Organization Specific)

10.14.6 Generation Substance Abuse Program

10.14.6.1 Testing shall be performed by a third party testing facility certified by Department of Health & Human Services, Drug & Alcohol Testing Industry Association (DATIA) or the Substance Abuse Program Administrators Association (SAPAA). The analytical method for a confirmatory drug test must combine chromatographic separation and mass spectrometric identification (i.e. GC/MS, CL/MS). Alcohol testing shall be performed only by certified Breathalyzer equipment (appearing on the Department of Health and Human Resources conforming product list) and trained breath alcohol technician. All positive breath alcohol tests shall be confirmed by an Evidentiary Breath Test that provides a print out.

Drug Screening Classes	Screening Cut-Off Limit*** (ng/ml)	Confirmation Cut-Off Limit (ng/ml)
Amphetamines Methamphetamines	500*	250* 250**
MDMA MDA MDEA	500*	250* 250* 250*
Barbiturates	300	200
Benzoylcegonine (Cocaine Metabolite)	150*	100*
Cannabinoids (THC)****	50*	15*
Opiates	2000*	2000*
Codeine	2000	2000
Morphine	2000	2000
Oxycodone	100	100
Hydromorphone	300	300
Hydrocodone	300	300
6-Acetylmorphine	10	10
Phencyclidine (PCP)	25*	25*
Benzodiazepines	300	300
Methadone	300	300
Propoxyphene	300	300
Breath alcohol content	.040g/210L	.040g/210L

* Cut-off limits established by the Department of Health and Human Services in their mandatory Guidelines for Federal Workplace Drug Testing Programs.

** To be reported positive for methamphetamine, a specimen must also contain amphetamine at a concentration equal to or greater than 100ng/ml.

*** In no event will the cutoff limits set forth in this paragraph be less than the cutoff limits set forth in the Technical Guidelines adopted from time to time by the United States Department of Health and Human Services.

**** The Medical Review Officer will not accept assertions that a positive THC resulted from the use of hemp oil or the injection of hemp products, and therefore verify a marijuana test negative. Individuals should avoid use of such products.

10.14.6.2 For Work not covered by the Building Trades Council, Association, or Craft program terms, Owner will reimburse Contractor at its actual cost, without additional markups, predicated upon Contractor's submittal of copies of the actual invoice(s) for the testing to Owner.

10.14.6.3 If an instant drug test is requested by the Contractor and the Contractor Personnel test results are positive, the Contractor Personnel will be removed from Site until the result can be verified by laboratory analysis. If the result is confirmed positive, the Contractor Personnel will be placed on the ban list. If the result is confirmed negative, the Contractor Personnel may return to the Site. The Owner will not be responsible for back pay to the employee under these circumstances.

11.0 **TOOLS**

NONE

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

14.2 For MSHA regulated facilities, MSHA Surface Certified person to perform required on shift inspection, document, and sign MSHA on shift book.

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 GENERATION POLICIES AND PROCEDURES

16.1.1 Generation Culture Playbook

17.0 DEFINITIONS AND ABBREVIATIONS

17.13 Pre-Work Hazard Assessment (PWHA) - Owner's initial hazard assessment for the Work to be executed by Contractor that identifies anticipated hazards as best as can reasonably be determined by Owner that may require elimination or mitigation. The PWHA will be provided to Contractor and is intended to provide a basis for initial planning purposes only and Owner does not make any warrant or representation, express or implied, that the PWHA is accurate, complete, comprehensive, or all-inclusive, or that items not listed will not be present or pose no threat to Contractor Personnel safety or health.

17.14 Job Hazard Analysis (JHA) - A detailed 3-step analysis that helps eliminate and/or reduce risk. This 3 step process breaks each task down into basic job steps, identifies existing and potential hazards associated with each step and provides recommendations/procedures to eliminate, reduce or control hazards, and the option of assessing potential severity.

Appendix D: Telecom

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix D: Telecom (this "Appendix") while performing Work for Owner's Telecom Operations. This Appendix supplements the corresponding sections, as listed in the AEP Safety and Health Supplemental Terms and Conditions.

1.0 INTRODUCTION

NONE

2.0 SAFETY & HEALTH PLANNING

2.2 Job Briefings

2.2.1.1 General Telecom Requirements. Contractor shall complete Owner's Job Briefing Form titled, "Job Safety & Hazard Analysis (JSHA) Construction Work Form" (i.e. Fiber Construction, Site Construction and/ or other related form specifically requested by Owner).

2.3 Work Safety and Health Plan (WSHP)

2.3.1 General Telecom Requirements. Notwithstanding the foregoing in Section 2.3 of the AEP Safety and Health Supplemental Terms and Conditions, WSHP shall apply only to Telecom station Work that exceeds five (5) Business Days. Each WSHP shall, at a minimum, include information regarding the following:

- 2.3.1.1 Project Details
- 2.3.1.2 Construction / Execution Plan
- 2.3.1.3 Emergency Planning
- 2.3.1.4 Environmental Protection Plans
- 2.3.1.5 Project Safety Management
- 2.3.1.6 Task Hazard Analysis
- 2.3.1.7 Civil Work / Excavations
- 2.3.1.8 Substation / Switchyards
- 2.3.1.9 T Line Project
- 2.3.1.10 Material (Delivery / Handling / Laydown Area)
- 2.3.1.11 Equipment
- 2.3.1.12 Disciplinary Program
- 2.3.1.13 Miscellaneous

2.3.2 Contractor shall ensure that the WSHP shall be made available, and the contents communicated to all personnel, Contractor Personnel or otherwise, on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.

2.3.3 All Contractor Personnel shall participate in driving the most efficient route to the nearest medical facility prior to any Work occurring on a Site. If the distance to the emergency facility is too great

and a helicopter is the most appropriate means of transportation, Contractor shall contact the service provider and have an appropriate landing zone planned.

2.4 Emergency Planning

2.4.1 General Telecom Requirements. Contractor shall refer to the JSHA in Section 2.2.1. above for additional information and requirements regarding emergency planning.

2.5 Additional Requirements

2.5.1 General Telecom Requirements

2.5.1.1 Contractors must have one blood borne pathogen kit per crew.

2.5.2 Telecom “Site Construction” Specific Requirements

2.5.2.1 Contractor shall ensure portable eye wash kits are made available for Contractor Personnel’s use.

2.5.2.2 For Drilled excavations six (6) feet or more in depth, Contractor Personnel shall be protected from falling by guardrail systems, fences, hard barricades or covers. All Contractor Personnel entering inside the guardrail system shall have and use fall protection equipment in the performance of his or her Work.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

3.5.1 All Contractor Personnel shall view the transmission safety and environmental videos prior to being on a Jobsite.

3.7 Qualified and Non-Qualified Electrical Employee

3.7.1 Qualified Electrical Employee-

3.7.1.1 Owner requires that qualified electrical Contractor crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29 CFR 1926 Subpart V.

3.7.1.2 Owner requires that qualified electrical Contractor crew members involved in the operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more) shall be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or “Qualified Employee” as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

- 3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;
- 3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee shall be exposed
- 3.7.1.3.4 Training to recognize and avoid electrical hazards;
- 3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top
- 3.7.1.3.6 & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the Work, and;
- 3.7.1.3.7 The proper use of special precautionary techniques, personal protective equipment and clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.
- 3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the Work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at the all times. Contractor crew members shall only perform Work at the level for which they are qualified.
- 3.7.1.5 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor shall ensure that its Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.1.6 Contractor shall maintain a list of qualified personnel able to Work near primary service, able to serve as a Qualified Observer, and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.
- 3.7.1.7 Contractor shall ensure that Qualified Employees and Subcontractor(s) Qualified Employees have the appropriate training to perform the Work.
- 3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require personnel to repeat training.
- 3.7.2 Non-Qualified Electrical Employee
 - 3.7.2.1 Contractor shall provide training for non-qualified electrical Contractor employees for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles). Contractor shall provide training for non-qualified electrical Contractor employees who shall be working near energized lines or equipment energized at 50 volts or more (i.e., civil contractors, laborers, locators, pole treatment/inspection, etc.). All direct and indirect costs of this training are Contractor's sole responsibility.

- 3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical Work. A Non-Qualified Employee must, at a minimum, be trained and competent in (list not all inclusive):
 - 3.7.2.2.1 Understanding of electrical hazards;
 - 3.7.2.2.2 Electric shock;
 - 3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they shall be entering;
 - 3.7.2.2.4 Hazard Reporting;
 - 3.7.2.2.5 The maximum voltage of the area/equipment;
 - 3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and and;
 - 3.7.2.2.6 Recognition and proper use of protective equipment that shall be used to provide protection and in the Work practices necessary for performing their specific Work assignments while working near energized lines or equipment energized at 50 volts or more.
- 3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor shall ensure that their Non-Qualified Employees demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.
- 3.7.2.4 Contactor shall ensure that Non-Qualified Employees and Subcontractor(s) Non-Qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that Non-qualified employees do not engage in any Work prior to completing the relevant training.

3.8 OPGW Personal Protective Grounding Training Class

- 3.8.1 Telecom “Fiber Construction” Specific Requirement. Contractor and on Site Contractor Personnel shall attend Optical Ground Wire (OPGW) Personal Protective Grounding Training Class training (incorporated herein by reference) prior to being on Jobsite.

4.0 SAFETY & HEALTH PROFESSIONAL

- 4.2 For each project with twenty (20) or more total Contractor Personnel on-Site, Contractor shall provide a full-time, dedicated, on-site safety representative. Contractor shall provide an additional full-time, dedicated, on-Site safety representative for each additional twenty (20) Contractor Personnel present thereafter. Even if the Work requires fewer than twenty (20) total Contractor Personnel on Site, if Owner determines the nature

of the Work justifies additional safety oversight, Owner has the right to request, whereupon Contractor shall provide a full-time, dedicated, safety representative for the Work.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

6.3 General Telecom Requirements. Contractor requested exceptions to Section 6.0 of the AEP Safety and Health Supplemental Terms and Conditions shall be sent to the Telecom Construction Manager.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.2 Arc Flash Policy

8.2.1 Contractor Personnel who Work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than the owner’s incident energy. Additional personal protective equipment, such as fire retardant rated face shields and balaclavas, shall be worn when employees are exposed to arc flash hazards in excess of the minimum requirements set forth in following table.

Table 1

Minimum Head and Face Protection		
Equipment Required	Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm²*	Arc-Rated Hood or Faceshield with Balaclava
Single-phase, open air	9-12 cal/cm ²	13 cal/ cm ² or higher**
Three phase	5-8/ cm ²	8 cal/ cm ² or higher***
* These ranges assume that Contractor Personnel are wearing hardhats meeting the specifications in OSHA 1910.135 or 1926.100(b)(2), as applicable. ** The arc rating must be a minimum of 4 cal/ cm ² less than the estimated incident energy, not that OSHA 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/ cm ² less than the estimated incident energy, at any incident energy level. *** Note OSHA 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.		

8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review Owner’s incident energy prior to start of Work.

- 8.2.3 All Contractor Personnel that are covered under the Safety & Health Supplemental Terms and Conditions shall dress in his or her arc rated clothing prior to arrival on Site.
- 8.2.4 In addition to the requirements as outlined by OSHA and per Owner's policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
 - 8.2.4.1 When working within the minimum approach distances;
 - 8.2.4.2 When determined by incident energy analysis;
 - 8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;
 - 8.2.4.4 When performing hot-stick Work;
 - 8.2.4.5 When bonding or working "bare hand method;"
 - 8.2.4.6 When grounding conductors or equipment;
 - 8.2.4.7 When testing lines or equipment to be de-energized;
 - 8.2.4.8 When performing switching operations;
 - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
 - 8.2.4.10 When disconnecting or connecting testing meters;
 - 8.2.4.11 When Contractor Personnel are required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
 - 8.2.4.12 When in a substation, unless labeled or identified as being different, arc flash boundary to exposed, energized parts is fifteen (15) feet. Also, specific to equipment inside a control house and unless labeled or identified as being different, arc flash boundary to exposed parts energized from 50 V to less than 300 V is three (3) feet six (6) inches.
- 8.2.5 In addition, Contractor Personnel shall comply with the following:
 - 8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.
 - 8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.
 - 8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing, but shall be free from stains or flammable products, screen printing, iron-on transfers, paint, etc.
- 8.3 General Telecom Requirements. All Contractor Personnel are required to wear flame resistant (FR) clothing under the following circumstances:

- 8.3.1 Gate to gate in a substation
- 8.3.2 Aerial construction on transmission or distribution networks
- 8.3.4 When entering a network manhole or vault
- 8.3.4 Anytime Site management requires FR clothing to be worn
- 8.3.5 High visibility reflective vest and shall be FR

9.0 INDUSTRIAL HYGIENE

NONE

10.0 MISCELLANEOUS SITE REQUIREMENTS

10.4.1 Telecom “Fiber Construction” Specific Equipment Barricading Requirements. *Distribution Line only; Equipment Barricading Policy, Aerial Devices (AEP TX ONLY)*- All aerial devices (Digger Derricks & Bucket Trucks) shall be barricaded by Contractor to prevent Contractor Personnel on ground from coming in contact with the aerial device in the event of an accidental electrical contact on any structure or pole with energized conductors. When working in areas where workers have access to the Work area directly under the boom or bucket of the aerial device, the entire Work area shall be barricaded by Contractor. When the barricaded Work area needs to be entered, the Qualified Observer, as defined below, shall confirm that all Work aloft is stopped and the aerial bucket and boom has been moved out to a safe distance from energized conductors or energized sources. Work shall only restart after Qualified Observer has confirmed that the barricaded area is clear. “Qualified Observer” as used in this Appendix means the foreman or equivalent lineman on the ground when energized Work in a bucket is being performed. The Qualified Observer,

- i) is responsible for understanding, communicating with, and watching the Work as it progresses;
- ii) shall not be assigned other duties while bucket is in the Primary Zone; and
- iii) has the authority to STOP Work if Work appears to be departing from the originally communicated plan.

10.4.2 Texas Telecom Aerial Contractor Personnel are required to:

- i) have fire extinguisher, spare Class II gloves with leather protectors, and blanket that can be kept in a bag outside the barricaded area during Mobile Operations;
- ii) use cover-ups and protective Sleeves when working above the neutral; and
- iii) ensure the required equipment is out of the bag and laid out for use when working in the Primary Zone. “Primary Zone” as used in this Section 10.4.2, means above the neutral.

10.15 Tethering

10.15.1 Telecom “Site” Specific Requirements.

10.15.1.1 Tethering Requirements for Aerial Tower Work - All tools and equipment (ex. Cameras, Cellphones, Radios) shall be tethered while in use. All Contractor Personnel shall ensure they are using manufactured tethers that meet industry standards. Tethers shall be designed for the tool and manufacturer weight limits followed. All tools and

materials that cannot reasonably be tethered shall be placed in sealable tool bags when not in use. All Contractor Personnel shall ensure that tool bags and materials are securely tied off to prevent dropped objects.

10.15.1.2 Tool Tether Inspection - All drop prevention systems shall be inspected prior to use. Excessively worn or damaged tools or materials must be immediately removed from service and replaced.

10.15.1.3 Drop Zone Protection - Contractor shall establish an agreed upon drop zone with the Jobsite AEP Representative and shall prevent entry of personnel not involved with the Work being conducted. Contractor shall police the area prior to a lift and remove all non-essential personnel to a safe location. When materials or equipment are being lifted into position that have the potential to cause injury to occupants in the control building it shall be vacated.

10.16 Side Setting a Pole in Power

10.16.1 Telecom “Fiber Construction” Specific Requirement. All Contractor Personnel shall adhere to Owner’s pole installation under power lines standards dated 6/21/2018, as amended from time to time (incorporated herein by reference).

10.17 Rubber Glove Policy

10.17.1 Telecom “Fiber Construction” Specific Requirements. Contractor Personnel working out of an aerial bucket shall wear rubber gloves with approved leather protectors before aerial device is un-cradled and boom lifted into air on any structure/pole with energized conductors. All conductors are considered energized unless tested and grounded on each side of Work location. When Work is required to place fiber above the neutral and working in the “Primary Zone” rubber sleeves (in AEP TX Only) are required to be used in conjunction with rubber gloves and approved leather protectors. Class 2 rubber gloves with approved leather protectors & sleeves (where required, AEP TX Only) shall be required at all structures/poles with energized conductors to 15KV. Class 3 Rubber gloves with approved leather protectors & sleeves (where required, in AEP TX Only) shall be required at all structures/poles with energized conductor voltages 15KV up to 25KV. No fiber shall be placed over any conductors over 25KV (transmission voltage). The Qualified Observer shall verify all personnel has the required rubber gloves with approved leather protectors and sleeves (in AEP TX Only) on before lifting of aerial bucket. FR clothing is required when working out of any aerial device. All rubber goods include; gloves, (sleeves and blankets in AEP TX Only) shall be inspected before each use and tested per all AEP & OSHA standards.

10.17.2 *Rubber Glove Policy for specific to (PSO & SEP), East (APCO, OHIO, KY, I&M ONLY).* Contractor Personnel working out of an aerial bucket shall wear Class 2 rubber gloves with approved leather protectors before aerial device is un-cradled and boom lifted into air on any structure/pole with energized conductors. All conductors are considered energized unless tested and grounded on each

side of Jobsite. FR clothing is required when working out of any aerial device. All rubber gloves, shall be inspected before each use and tested per all AEP & OSHA standards.

11.0 TOOLS

NONE

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

NONE

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 TELECOM POLICIES AND PROCEDURES

NONE

17.0 DEFINITIONS AND ABBREVIATIONS

17.14 Work Safety and Health Plan (WSHP): WSHP as used in this Appendix D means a structured document that details the scope of construction Work and related safety controls for management review and tradesman training.

Appendix E: Transmission

As part of Contractor’s obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix E: Transmission (this “Appendix”) while performing Work for Owner’s Transmission Operations. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

1.0 INTRODUCTION

NONE

2.0 SAFETY & HEALTH PLANNING

2.2 Job Briefings:

2.2.1.1 Contractor shall use Owner supplied Pre-Job Briefing Form located on VERO (<https://verodms.com>).

2.3 For Work exceeding five (5) days duration, Contractor shall be required to submit a Work Safety and Health Plan (WSHP) no later than five (5) business days after the Effective Date of the Contract. WSHP shall be submitted, via email, to the Owner assigned TCR, Project Manager, Environmental Representative and Safety Representative for the Work. Failure to submit the WSHP in the time frame described herein may result in revocation of contract award. The WSHP template for use is located on VERO (<https://verodms.com>).

If Work is less than five (5) days in duration but considered to be ‘high risk’, the AEP Transmission Project Team reserves the right to require the Contractor to submit a WSHP for the project.

Note: : ‘High Risk’ work may include, but is not limited to: Critical Lifts, Crane Activities, Pier Foundations, Demolition, Steel Erection, Personnel Hoisting, Transferring Conductor, Energized Services, Working

2.3.1 A WSHP shall, at a minimum, include information regarding the following:

- Project Details
- Construction/Execution Plan
- Emergency Planning
- Environmental Protection Plans
- Project Safety Management
- Task Hazard Analysis
- Civil Work/Excavations
- Substation/Switchyards
- T Line Project
- Material (Delivery/Handling/Laydown Area)
- Equipment

- Disciplinary Program
- Miscellaneous

2.3.2 Contractor shall ensure that the WSHP be made available and the contents communicated to all personnel on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.

2.3.3 All Contractor Personnel shall participate in driving the most efficient route to the nearest medical facility prior to any Work occurring on a Site. If the distance to the emergency facility is too great and a helicopter is the most appropriate means of transportation, Contractor shall contact the service provider and have an appropriate landing zone planned.

2.5 Following review of Job Briefing, Contractor Personnel performing specific tasks shall complete a detailed Task Hazard Analysis (THA) at the physical work location that identifies task steps and lists the associated hazards and mitigation controls. Daily, before any Work begins or resumes, and before changing any Work procedures or activity at any Site, Contractor shall perform a documented new THA which identifies all known and potential Work Site risks. The THA shall be either handwritten with dates and original signatures or may be produced electronically – as long as the final document bears the relevant time and date stamp with original signatures. Any duplication by any means, including photocopied, pre-filled, copied and pasted, or other means of replication of any report **shall not be allowed.**

2.5.1 Contractor’s assigned supervisor or lead shall review the THA with each Contractor Personnel crewmember prior to the start of each task and anytime the Work procedure changes. Additionally, the Contractor’s assigned supervisor or lead shall review the THA with each Contractor Personnel crewmember after lunch and/or after any significant break in the Work.

Contractor’s THA shall include:

- A detailed step-by-step plan for the task to be performed, referencing any specific requirements of the associated;
- Specific risk/hazards associated with the task on the associated project;
- Control measures Contractor will implement in order to eliminate or control such potential risks/hazards.

2.5.2 Contractor shall ensure that each Contractor Personnel crewmember performing Work shall sign their name verifying that he or she understands the THA and will adhere to it.

2.5.3 Using Contractor Personnel that is knowledgeable with the applicable scope of Work, Contractor shall conduct a THA review with all personnel who enter the Work zone or Site. Contractor’s review shall include a scope of Work and any hazards present at the site.

2.5.4 Contractor shall provide easy access to the THA for all personnel and all contractors on Site at the start of the activity and upon any changes to the THA or upon any requests to review the THA. Contractor shall make THA’s available on the Site at all times.

2.5.5 Contractor shall immediately communicate to all personnel on Site, regardless of affiliation, any changes to the THA that occur throughout the performance of the Work.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

3.3 This is applicable to each crew on the jobsite. The exception is to those performing Electrical Work under 600V.

3.7 Qualified and Non-Qualified Electrical Employees

3.7.1 Qualified Electrical Employee

3.7.1.1 Owner requires that qualified electrical Contractor Personnel crew members involved in the operation, construction, maintenance, or working on or near electric power generation, control, transformation, transmission, and distribution lines and equipment will be qualified as required by OSHA in 29 CFR 1910.269 and 29CFR 1926 Subpart V.

3.7.1.2 Owner requires that qualified electrical Contractor Personnel crew members involved in the operation, repairing, testing, verification, or exposure to or working on or near live parts energized at 50 volts or more, will be qualified as required by OSHA 1910 Subpart S and OSHA 1926 Subpart K.

3.7.1.3 Owner defines a qualified electrical employee or ‘Qualified Employee’ as a person having been trained and having demonstrated knowledge in the construction and operation of electrical power generation, transmission and distribution equipment involved and the associated hazards. A Qualified Employee must be trained and competent in (list not all-inclusive):

3.7.1.3.1 The skills and techniques necessary to distinguish exposed live parts of electrical equipment;

3.7.1.3.2 The skills and techniques necessary to determine the nominal voltage of exposed live parts;

3.7.1.3.3 The minimum approach distances or safe working distances specified by OSHA corresponding to the voltages to which the Qualified Employee will be exposed;

3.7.1.3.4 Training to recognize and avoid electrical hazards;

3.7.1.3.5 Safety practices, including applicable emergency procedures (such as pole top & manhole rescue, first aid/CPR, Lock Out/Tag Out), that are related to the work, and;

3.7.1.3.6 The proper use of special precautionary techniques, personal protective equipment/clothing, insulating, and shielding materials, and insulated tools for working on or near exposed parts of electrical equipment.

3.7.1.4 Until these Qualified Employees have demonstrated proficiency in the work practices involved, they are considered to be employees undergoing on-the-job training and must be under the direct supervision of a qualified person at all times. Contractor Personnel shall only perform Work at the level for which they are qualified.

3.7.1.5 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that it’s

Qualified Employees demonstrate competencies. Contractor shall certify that each Qualified Employee has received training required by this section. Certification shall be made when the Qualified Employee has demonstrated proficiencies in the Work assigned.

3.7.1.6 Contractor shall maintain a list of qualified personnel be able to work on or near primary, able to serve as a qualified observer and able to work secondary service. Qualified list shall be available upon request from Owner during normal operation and prior to service restoration.

3.7.1.7 Contractor shall ensure that its Qualified Employees and its Subcontractor(s) Qualified Employees have the appropriate training to perform the Work.

3.7.1.8 Owner, at its sole discretion based on Work observations or for other reasons, may at any time withdraw its acceptance of any previously approved or completed training and require Contractor Personnel to repeat training.

3.7.2 Non-Qualified Electrical Employee

3.7.2.1 Contractor shall provide training for non-qualified electrical employees for the purpose of entering or working within electrical areas (i.e., electrical vaults, manholes, poles).

3.7.2.2 Owner defines a non-qualified electrical employee or “Non-Qualified Employee” as a person who has not been trained or authorized to conduct electrical work. A Non-Qualified Employee must be trained and competent in (list not all-inclusive):

3.7.2.2.1 Understanding of electrical hazards

3.7.2.2.2 Electric shock;

3.7.2.2.3 What is safe to touch and what is not safe to touch in specific areas they will be entering;

3.7.2.2.4 Hazard Reporting

3.7.2.2.5 The maximum voltage of the area/equipment;

3.7.2.2.6 The minimum approach distances for the maximum voltage within the area, and;

3.7.2.2.7 Recognition and proper use of protective equipment that will be used to provide protection and in the work practices necessary for performing their specific work assignments while working near energized lines or equipment energized at 50 volts or more.

3.7.2.3 At Owners request, Contractor must supply documentation concerning the types of skills assessments performed, training programs and how the Contractor will ensure that their Non-Qualified Employee demonstrate competencies. Contractor shall certify that each Non-Qualified Employee has received training required by this section. Certification shall be made when the Non-Qualified Employee has demonstrated proficiencies in the Work assigned.

3.7.2.4 Contractor shall ensure that its Non-Qualified Employees and its Subcontractor(s) Non-qualified Employees have the appropriate training and safety instruction to perform the Work. Contractor shall also ensure that its Non-Qualified Employees and its Subcontractor(s) Non-Qualified Employees do not engage in any work prior to completing the relevant training.

3.8 Contractor shall submit its annual training plan to Owner for review no later than February 1 of the applicable calendar year. Contractor shall make such submission to Owner via the following link <http://aeptcs.com>. Contractor's Training plans shall, be at a minimum, include a training calendar, learning objectives for that year, and evaluation tools that will be used to measure the success of the training.

3.9 All Contractor Personnel required to enter an Owner energized substation or switchyard shall complete Station Entry Training prior to entry. Contractor Personnel shall, at a minimum, be trained, competent and comfortable with the skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment, determine the nominal voltage of exposed live parts, and the minimum approach distances corresponding to the voltage to which the Contractor Personnel will be exposed. Contractor shall maintain a record of this training and shall make such records available to Owner upon Owner's request.

3.10 Contractor Personnel entering an energized station Site who are not station entry qualified, per OSHA standards, shall be accompanied by and under the direct supervision of a qualified supervisor. If the qualified supervisor leaves the station Site where Work is being performed; all affected Contractor Personnel shall also leave the Site.

4.0 SAFETY & HEALTH PROFESSIONAL

4.2 For each project with twenty (20) or more total Contractor Personnel on-Site, Contractor shall provide a full-time, dedicated, on-site safety representative. Contractor shall provide an additional full-time, dedicated, on-Site safety representative for each additional twenty (20) Contractor Personnel present thereafter. Even if the Work requires fewer than twenty (20) total Contractor Personnel on Site, if Owner determines the nature of the Work justifies additional safety oversight, Owner has the right to request, whereupon Contractor shall provide a full-time, dedicated, safety representative for the Work.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR/WORK DAY LIMITATIONS

6.3 Exceptions to work hour and workday limitation shall be requested by the Contractor and be pre-approved in writing by the Owner's Construction Manager and Project Manager.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1.4.1 Work gloves appropriate for the potential hazards of the job tasks. *Note: Jersey gloves are not permitted to be worn as the only means of protection.*

8.2 Arc Flash Policy

8.2.1 Contractor Personnel who work on or near energized facilities and equipment shall wear arc rated clothing equal to or greater than the owner’s incident energy. Additional personal protective equipment, such as fire retardant rated face shields and balaclavas, shall be worn when Contractor Personnel are exposed to arc flash hazards in excess of the minimum requirements set forth in following table (Table 1).

Table 1

Minimum Head and Face Protection		
Equipment Required	Arc-Rated Faceshield with a Minimum Rating of 8 cal/cm ² *	Arc-Rated Hood or Faceshield with Balaclava
Single-phase, open air	9 – 12 cal/cm ²	13 cal/cm ² or higher**
Three phase	5 – 8 cal/cm ²	9 cal/cm ² or higher***

*These ranges assume that employees are wearing hardhats meeting the specifications in 1910.135 or 1926.100(b)(2), as applicable.

**The arc rating must be a minimum of 4 cal/cm² less than the estimated incident energy; note that 1926.960(g)(5)(v) permits this type of head and face protection, with a minimum arc rating of 4 cal/cm² less than the estimated incident energy, at any incident energy level.

***Note 1926.960(g)(5)(v) permits this type of head and face protection at any incident energy level.

8.2.2 Owner shall supply Contractor with appropriate system requirements based on local electrical system configuration. Contractor and Owner shall review owner’s incident energy prior to start of Work.

8.2.3 All Contractor Personnel that are covered under these terms shall dress in his or her arc rated clothing prior to arrival on Site.

8.2.4 In addition to the requirements as outlined by OSHA, and per Owner’s policy, the requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:

- 8.2.4.1 When working within the minimum approach distances;
- 8.2.4.2 When determined by incident energy analysis;
- 8.2.4.3 When rubber gloves or rubber gloves and sleeves are required;

- 8.2.4.4 When performing hot-stick work;
 - 8.2.4.5 When bonding or working “bare hand method”;
 - 8.2.4.6 When grounding conductors or equipment;
 - 8.2.4.7 When testing lines or equipment to be de-energized;
 - 8.2.4.8 When performing switching operations;
 - 8.2.4.9 When entering enclosed/confined spaces with energized lines or equipment;
 - 8.2.4.10 When disconnecting or connecting testing meters;
 - 8.2.4.11 When Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.
 - 8.2.4.12 When in a substation, unless labeled or identified differently, the arc flash boundary to exposed, energized parts is fifteen feet (15'). Contractor further agrees that specific to equipment inside a control house and unless labeled or identified differently, the arc flash boundary to exposed parts energized from fifty volts (50V) to less than three hundred volts (300V) is three foot, six inches (3'6").
- 8.2.5 In addition, Contractor shall ensure that Contractor Personnel comply with the following:
- 8.2.5.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.
 - 8.2.5.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.
 - 8.2.5.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing.
- 8.2.6 Contractor agrees that any Contractor Personnel, who may be called upon to work on or near exposed, energized part(s) shall either wear the appropriate arc-rated clothing or have them readily available on Site at all times.
- 8.3.1 The outermost layer of clothing on the upper body shall be ‘High Visibility and Reflective’.

9.0 INDUSTRIAL HYGIENE

NONE

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

- 10.1.1 When excavating inside energized stations, Contractor shall secure a written approval from Owner prior to using any mechanical devices to perform such excavation inside an energized substation. Contractor shall consider Non-destructive excavation methods (i.e. hydro-vac, hand dig, etc.) for

initial use in energized stations to determine location of potential utilities. Upon review, on an individual Site basis, Owner may require non-destructive excavation be used, or may approve the use of mechanical excavation methods.

- 10.4.1 Contractor shall ensure that all excavations are barricaded.
- 10.4.2 Contractor shall define Work areas and drive paths of substations and switchyards with barricades to delineate safe distances to structures, equipment, fixed objects, etc.
- 10.4.3 Aerial devices shall be barricaded to prevent workers on the ground from falling objects or touching the aerial device in the event of an accidental contact with energized conductors. The barricaded needs to be entered the observer shall confirm that all work aloft is stopped and that the bucket, work platform, or boom has been moved out to a safe distance from nearby energized conductors or sources. Work will only restart after the observer has confirmed that the barricaded area is clear. area shall also be extended beyond any temporary ground rod or anchor. When the barricaded area
 - 10.4.3.1 Aerial devices shall be grounded when in use. Grounding shall be applied to a system ground conductor such as station equipment ground, structure ground, or a grounded structure. Where such previously mentioned grounding sources are not available, a remote temporary ground rod or an anchor shall be used. When a temporary ground rod is used, it is to be driven into the ground for its entire length, if possible, but never less than two feet in the ground to provide the best ground contact. Also, the ground rod or anchor shall be away from the immediate work area to reduce the risk of step potential and be barricaded.
 - 10.4.3.2 Equipment with a boom, mast, bucket, bed, etc. shall be stowed and fully cradled before moving.
 - 10.4.3.3 Before beginning equipment operations, the Contractor shall identify the Work zone to determine if any part of the equipment, boom, load line or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could encroach the trigger distance to energized lines or equipment. The trigger distance for non-qualified electrical workers is defined as twenty feet (20') for less than 345kV and fifty feet (50') for 345kV and greater. For qualified electrical workers these distances are defined as fifteen feet (15') for less than 345kV and thirty feet (30') for 345kV and greater. If the trigger distance to energized lines or equipment is encroached, the Contractor shall:
 - 10.4.3.3.1 Conduct a documented planning meeting with the operator and the other workers who will be in the area of the equipment or load to review the location of the energized lines and/or equipment. The planning meeting shall address the steps and provisions that will be implemented to prevent encroachment, including delineated work zone, positioning of equipment, voltage with applicable minimum approach distance and available

engineering controls (i.e. proximity alarms, range limiting devices, insulating protective material, barricades, etc.)

10.4.3.3.2 Assign dedicated qualified observer(s) whose sole responsibility is to watch the separation between the conductor and the equipment, load line and load (including rigging and lifting accessories), ensure that the applicable minimum approach distance is not breached through communication with the operator, and warn all persons involved in the work of impending dangers.

10.4.3.3.3 Erect and maintain an elevated warning line, barricade or line of signs, in view of the operator, equipped with flags or similar high-visibility marking at the minimum approach distance.

10.4.3.4 Backing motor vehicles should be avoided wherever possible, such as by taking pull through opportunities. If backing cannot be avoided Contractor Personnel should back upon arrival. A second Contractor Personnel, if present, shall be used as a spotter while backing.

10.4.3.5 Refer to <http://aeptcs.com> for additional information regarding Section 18.0 Mobile Equipment Requirements.

10.15 HOUSEKEEPING – Contractor shall keep all trash in appropriate containers and shall dispose of it in a proper and timely manner. Contractor shall not store materials within the working space around energized lines or equipment.

10.16 CABLE VERIFICATION – Immediately prior to cutting any control cable, Contractor Personnel shall have a second person verify that it is the proper cable and that it is de-energized.

10.17 GUARD STRUCTURES – All hotline crossings and all road crossing shall be protected by the use of a guard structure. Guard structures (including equipment used as guard structures) shall be installed prior to disconnecting the conductor and shall remain in place until the conductor is clipped in.

10.18 PLACEMENT OF GROUNDS – The location of all grounds on Owner’s transmission lines and stations shall be tracked and documented by Contractor. Grounds shall be installed and removed maintaining minimum approach distance. Grounds shall be inspected prior to each use. All Grounds (each cable) shall be flagged.

10.19 WARNING SIGNS - Warning signs shall be installed at locations where overhead lines have been identified. Warning signs shall be visible and considered for all directions of travel, including site ingress and egress. Warning signs shall be no less than 36" x 36" and placed at appropriate height to draw attention. Bilingual warning signs shall be posted whenever prudent.

11.0 TOOLS

11.4 Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

14.1.1 If Work exceeds two weeks in duration, a Contractor safety professional shall perform and document at least one project safety observation report on each Site no less than once per month.

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 TRANSMISSION POLICIES AND PROCEDURES

NONE

17.0 DEFINITIONS AND ABBREVIATIONS

NONE

Appendix F: Workplace Services

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the additional requirements set forth in this Appendix F: Workplace Services (this "Appendix") while performing Work for Owner's Workplace Services Business Operations at Owner's facilities. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions.

The AEP Safety and Health Supplemental Terms and Conditions and this Appendix will remain in effect for all High Risk Work regardless of timing. On Real Estate and Workplace Services projects where a Certificate of Occupancy, Temporary Certificate of Occupancy, or similar documentation from an Owner's Representative is granted, the Director of Real Estate and Workplace Services or appropriate Manager of the organization responsible for the Work may relax some of these requirements by designating the changes in writing prior to implementation.

1.0 INTRODUCTION

NONE

2.0 SAFETY & HEALTH PLANNING

2.2 Job Briefings:

2.2.1.1 Attachment: Owner's Job Briefing Form

2.3 For Work exceeding five (5) days duration, Contractor may be required to submit a Work Safety and Health Plan (WSHP) per the RFP no later than five (5) business days after the Effective Date of the Contract. The WSHP shall be submitted to the Owner's Representative via email. Failure to submit the WSHP in the timeframe described herein may result in revocation of contract award. If Work is less than five (5) days in duration but considered to be High Risk, Owner reserves the right to require the Contractor to submit a WSHP for the project. Contractor shall ensure that the WSHP shall be made available, and the contents communicated to all Contractor Personnel on Site at any time. The WSHP shall be maintained separate from other safety documentation and be kept readily available on Site.

2.3.1 Attachment: Owner's WSHP Form

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

NONE

4.0 SAFETY AND HEALTH PROFESSIONAL

4.2 Contractor shall provide an on-site full-time Safety and Health Professional for each shift of Work in which the total of craft Contractor Personnel exceeds 40 personnel with an additional Safety and Health Professional for each additional 40 personnel.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

6.3 Exceptions to the 16 hour and 13 day rules must be approved by the Director of Real Estate and Workplace Services or appropriate Manager of the organization responsible for the Work.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

NONE

8.0 PERSONAL PROTECTIVE EQUIPMENT

8.1.6 Footwear: With the exception of project Site office buildings, Contractor Personnel shall follow the footwear requirements unless Owner agrees with Contractor's PPE Assessment that justifies less or more stringent requirements.

9.0 INDUSTRIAL HYGIENE

NONE

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

NONE

11.0 TOOLS

NONE

12.0 REPORTING REQUIREMENTS

NONE

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

NONE

15.0 PROHIBITED FROM JOBSITE

NONE

16.0 WORKPLACE SERVICES POLICIES AND PROCEDURES

NONE

17.0 DEFINITIONS AND ABBREVIATIONS

NONE

Appendix G: AEP Energy Supply

As part of Contractor's obligations under the AEP Safety and Health Supplemental Terms and Conditions, Contractor and all Contractor Personnel shall follow the amended language, clarifications and additional requirements set forth in this Appendix G: AEP Energy Supply Clarifications and Additional Requirements (this "Appendix") while performing Work for Owner's Energy Supply projects – inclusive of AEP Energy, AEP Energy Partners, AEP OnSite Partners, and AEP Renewables. This Appendix supplements the corresponding sections as listed in the AEP Safety and Health Supplemental Terms and Conditions dated October 1, 2019.

1.0 INTRODUCTION

Amended language:

- 1.2 These safety and health requirements shall be used in conjunction with the applicable AEP General Terms and Conditions for Work performed across the AEP System. These requirements reflect Owner's minimum expectations regarding safety and health practices and may exceed the requirements of federal, state, and local regulatory agencies. In the event of a conflict between or among the safety and health practices provided herein and any federal, state or local requirements, the higher standard or greater requirement for Contractor shall prevail. By entering into the Contract, Contractor agrees that Contractor shall perform all Work in accordance with these safety and health requirements.

Additional requirement:

- 1.8 In the event any reference herein, or in the policies or documents referred to herein, identifies an obligation or responsibility of AEP site staff, AEP personnel, or such other related reference associated with an AEP representative (collectively, "AEP Representative"), such reference shall not transfer or modify the Contractor's obligations for Work to such AEP Representative if Contractor has agreed to such obligation or responsibility pursuant to a Contract between Contractor and Owner.

2.0 SAFETY & HEALTH PLANNING

Amended language:

- 2.2 Job Briefing: Prior to the commencement of Work and before any changes are made in procedures or activities, ~~and prior to resuming Work after any significant breaks (i.e. lunch).~~ Contractor shall perform a Job Briefing and complete a written Job Briefing Form (pursuant to requirements set forth by OSHA). When returning to Work after a significant break (e.g., lunch), Contractor Personnel shall review the Job Briefing Form and modify it to reflect any significant changes affecting the safety of Contractor Personnel.

Amended language:

- 2.2.1.1 Unless Contractor's Job Briefing Forms are approved in writing by Owner Representative prior to the start of Work, Contractor shall use Owner supplied Job Briefing Form available on VERO (<https://verodms.com>) ~~in the applicable Business Unit appendix.~~

Clarification:

2.3 Owner will notify Contractor if a Work Safety and Health Plan (WSHP) is required. Contractor will use Owner's WSHP form (available on VERO at <https://verodms.com>) and provide a complete WSHP to Owner prior to start of Work.

Additional requirement:

2.3.1 Owner will provide Contractor with Owner's completed Pre-Work Jobsite Information Summary (PJIS) which identifies characteristics, conditions and design information of plant installations that are related to the safety of the Work, along with requirements for additional pre-Work planning (e.g., direction on whether Contractor must complete a WSHP and/or a Job Hazard Analysis (JHA)). Contractor shall consider the PJIS and understand that the PJIS is informational for initial planning purposes only. The PJIS does not relieve Contractor of its obligation to conduct its own hazard assessment of the Work.

Additional requirement:

2.5 Job Hazard Analysis (JHA)

2.5.1 If Owner requires a WSHP, Contractor shall prepare a JHA in accordance with its WSHP. Where a WSHP is not required, Contractor shall prepare a JHA for the planned Work subject to review by Owner prior to starting Work.

2.5.2 Owner reserves the right to require Contractor to prepare additional JHAs. Contractor shall use and update JHAs to consistently apply proper safeguards. All JHAs are subject to review by Owner.

3.0 GENERAL PERSONNEL TRAINING AND QUALIFICATION REQUIREMENTS

Amended language:

3.2.1 All Contractor Personnel who are performing High Risk Work on Owner Jobsites shall successfully complete, at a minimum, the OSHA 10-Hour for General Industry or Construction Training, OSHA Electric Transmission and Distribution (ET&D) Partnership 10-Hour Training, or have specific written approval from Owner's ~~Corporate Business Unit~~ Safety and Health Designee ~~Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) allowing equivalent training(s) to be accepted in lieu of OSHA training.

Clarification:

3.3 The number of Contractor Personnel trained in First Aid, Cardiopulmonary Resuscitation (CPR) and Automated External Defibrillator (AED) will be mutually agreed upon by Owner and Contractor prior to beginning Work and will be based on Work scope and crew size.

Amended language:

3.5 Prior to entering Owner's Jobsite, all Contractor Personnel shall complete the AEP onboarding requirements, which may vary by Business Unit. This training takes approximately two (2) hours. All Contractor Personnel shall refresh such training on an annual basis ~~prior to March 31st~~.

Additional requirement:

3.7 Contractor is responsible for providing qualified and capable personnel to perform the Work covered by the Contract and ensuring that Contractor Personnel only perform Work at the level for which they are qualified. Where federal, state and/or local standards require the contractor to train employees in the safety and health aspects of their jobs or limit certain job assignments to employees who are “certified,” “competent,” or “qualified,” Contractor shall ensure Contractor Personnel have the appropriate training and safety instruction to meet applicable requirements. At Owner’s request, Contractor must supply documentation including, but not limited to, training records, training programs, and/or skills assessments demonstrating competency and proficiency to safely perform Work, as required.

4.0 SAFETY AND HEALTH PROFESSIONAL

Clarification:

4.2 Contractor shall provide an on-site full-time Jobsite Safety and Health Professional for each shift of Work in which the total of Contractor Personnel exceeds 25 personnel. An additional Safety and Health Professional is required when the total Contractor Personnel exceeds 75 personnel and for each additional 50 Contractor Personnel thereafter, or as described in the Contract.

5.0 COMMUNICATION

NONE

6.0 WORK HOUR / WORK DAY LIMITATIONS

Clarification:

6.3 Exceptions to the 16-hour and 13-day rules must be approved by the Owner’s Business Unit Safety & Health Designee or Plant Manager of the Business Unit contracting for the Work.

7.0 CONTRACTOR AND SUBCONTRACTOR QUALIFICATION STATUS

Amended language:

7.2 Contractor shall only use AEP approved contractors (found in VERO) as Subcontractors to perform medium or high risk Work. To initiate the process to utilize a Subcontractor that is not currently qualified by Owner in VERO, the Contractor shall have the Subcontractor join VERO and obtain an approved qualification status prior to any Subcontractor Work. Any exceptions to this must be approved in writing by Owner’s ~~Corporate~~ Business Unit Safety and Health ~~Designee Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Subcontractor Work.

8.0 PERSONAL PROTECTIVE EQUIPMENT

Amended language:

8.1 Contractor Personnel shall wear, at a minimum, the following PPE while on any Jobsite, unless directed otherwise in the Business Unit Appendices:

Amended language:

- 8.1.3 Hardhats that meet the specifications of ANSI Z89.1, Class E. A chinstrap is required when working at heights.

Clarification:

- 8.1.4 Contractor Personnel shall wear protective gloves as appropriate for the potential hazards of the Work task.

Additional requirement:

- 8.1.8 When climbing wind turbines, the following additional PPE is required:
 - 8.1.8.1 Headlamp (for lowlight conditions)
 - 8.1.8.2 Full body harness with dorsal and sternal d-rings
 - 8.1.8.3 Double-legged shock absorbing lanyards capable of arresting a free fall of up to six feet (6'). When connecting to an anchorage point above the dorsal d-ring is not possible (such as when working on top of the nacelle), lanyards must be capable of arresting a free fall of up to twelve feet (12').
 - 8.1.8.4 Cable sleeve compatible with vertical ladder safety system
 - 8.1.8.5 Tool tethers/lanyards
 - 8.1.8.6 Rescue kits
 - 8.1.8.7 Suspension trauma relief loops/straps
- 8.1.9 When climbing wind turbines, the following additional PPE is recommend:
 - 8.1.9.1 Lanyard keepers integrated into full body harness
 - 8.1.9.2 Work positioning d-rings at the hip/side of full body harness

Amended language:

- 8.2 Contractor shall review arc flash potential ~~with Owner's Representative~~ to determine the appropriate PPE.

Additional requirement:

- 8.2.1 Contractor shall comply with AEP's Arc Flash Protection Policy, available on VERO (<https://verodms.com>).
- 8.2.2 The requirements for Contractor Personnel to wear the protective clothing and equipment working on or near exposed, energized part(s) includes, but is not limited to the following examples of potential arc flash exposures:
 - 8.2.2.1 When working within the minimum approach distances;
 - 8.2.2.2 When determined by incident energy analysis;
 - 8.2.2.3 When rubber gloves or rubber gloves and sleeves are required;
 - 8.2.2.4 When performing hot-stick work;
 - 8.2.2.5 When bonding or working "bare hand method";
 - 8.2.2.6 When grounding conductors or equipment;
 - 8.2.2.7 When testing lines or equipment to be de-energized;
 - 8.2.2.8 When performing switching operations;
 - 8.2.2.9 When entering enclosed/confined spaces with energized lines or equipment;
 - 8.2.2.10 When disconnecting or connecting testing meters;

8.2.2.11 When Contractor Personnel is required to physically assist with energized Work on lines or equipment where mechanical failure or human error could expose employee to a flash.

8.2.2.12 When in a substation, unless labeled or identified differently, the arc flash boundary to exposed, energized parts is fifteen feet (15'). Contractor further agrees that specific to equipment inside a control house and, unless labeled or identified differently, the arc flash boundary to exposed parts energized from fifty volts (50V) to less than three hundred volts (300V) is three foot, six inches (3'6").

8.2.3 In addition, Contractor shall ensure that Contractor Personnel comply with the following:

8.2.3.1 All outer layers of clothing shall have the appropriate arc flash rating (including the upper and lower body). When a shirt is worn as the outer layer, it shall be long sleeves. Sleeves shall be rolled down and buttoned with the shirt tails tucked into the trousers. When an additional layer is required (such as, but not limited to, a coat or overalls) the outer layer shall have the appropriate arc flash rating.

8.2.3.2 Arc flash rated clothing shall be worn as constructed by the manufacturer. Altering arc flash rated clothing (i.e. removing sleeves or collars, etc.) is prohibited.

8.2.3.3 Clothing made from acetate, nylon, polyester, or polypropylene that is not arc flash rated shall not be worn under arc flash rated clothing or by itself while employees are exposed to arc flash hazards. Garments made from 100% natural fibers (i.e. cotton, wool) may be worn under arc flash rated clothing.

Additional requirement:

8.4 Owner may require the outermost layer of clothing on the upper body be high visibility and reflective.

9.0 INDUSTRIAL HYGIENE

Amended language:

9.1.3 Owner requires regulated areas for all Work involving potential exposure to hexavalent chromium regardless of the type of Work conducted (General Industry or Construction). Contractor shall provide Owner's competent person for potential hexavalent chromium exposure shall be consulted an analysis regarding of the appropriate size, location and demarcation of the regulated area for review.

Amended language:

9.2.1 Structural steel and equipment throughout Owner's facilities and/or the Jobsite may have been coated with lead/cadmium based materials including galvanizing. Contractor shall treat all surfaces as containing lead/cadmium unless tested otherwise prior to performing any grinding, welding, sanding, heating, sandblasting or similar activity. Owner requires that any coating containing lead at a level of 0.05% (500 ppm) or greater be treated as a lead-containing coating.

Amended language:

9.2.4 Contractor shall collect all removed lead/cadmium bearing paint and contaminated materials used for the removal of lead/cadmium bearing paint. These materials shall be placed in Contractor supplied packaging ~~meeting the applicable US Department of Transportation requirements for the~~

~~material, labeled and disposed of per applicable local, state and federal regulations unless specified otherwise in the Contract and properly labeled and stored per Owner instructions.~~

Amended language:

- 9.4.2 Contractor shall have procedures for proper labeling, storing, and handling of hazardous chemicals and hazardous wastes in a safe and secure manner meeting all applicable local, state and federal regulatory requirements. These procedures shall be available to the Owner for review prior to the start of Work.

10.0 MISCELLANEOUS JOBSITE REQUIREMENTS

Amended language:

- 10.1 When performing excavation Work, Contractor shall comply with Owner's excavation policy, including permits. All excavations must be barricaded.

Amended language:

- 10.8 Upon entry or exit of a substation, Contractor shall ~~notify the appropriate Dispatch Authority~~ report their presence to the employee-in-charge.

Amended language:

- 10.11 Unless Contractor's Welding, Cutting, and Brazing policy is approved in writing by Owner's ~~Corporate~~ Business Unit Safety and Health Designee ~~Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall comply with Owner's Welding, Cutting, and Brazing policy.

- 10.12 Unless Contractor's Attentive Driving policy is approved in writing by Owner's ~~Corporate~~ Business Unit Safety and Health Designee ~~Director~~ and Business Unit Operations Manager (AEP Grade 10 or above) prior to the start of Work, Contractor shall follow Owner's Attentive Driving Policy while performing Work for Owner.

Additional Requirements:

- 10.15 Substance Abuse Program: All Contractor Personnel shall have passed drug and alcohol screening tests, meeting the following requirements, within the previous 12 months of beginning Work at the Jobsite. Testing for the drugs indicated below shall be performed by a third party testing facility certified by Department of Health & Human Services, Drug & Alcohol Testing Industry Association (DATIA) or the Substance Abuse Program Administrators Association (SAPAA). The analytical method for a confirmatory drug test must combine chromatographic separation and mass spectrometric identification (i.e. GC/MS, CL/MS). Alcohol testing shall be performed only by certified Breathalyzer equipment (appearing on the Department of Health and Human Resources conforming product list) and trained breath alcohol technician. All positive breath alcohol tests shall be confirmed by an Evidentiary Breath Test that provides a print out.

Drug Screening Classes	Screening Cut-Off Limit*** (ng/ml)	Confirmation Cut-Off Limit (ng/ml)
Amphetamines Methamphetamines	500*	250* 250**
MDMA MDA MDEA	500*	250* 250* 250*
Barbiturates	300	200
Benzoylcegonine (Cocaine Metabolite)	150*	100*
Cannabinoids (THC)****	50*	15*
Opiates Codeine Morphine Oxycodone Hydromorphone Hydrocodone 6-Acetylmorphine	2000* 2000 2000 100 300 300 10	2000* 2000 2000 100 300 300 10
Phencyclidine (PCP)	25*	25*
Benzodiazepines	300	300
Methadone	300	300
Propoxyphene	300	300
Breath alcohol content	.040g/210L	.040g/210L

* Cut-off limits established by the Department of Health and Human Services in their mandatory Guidelines for Federal Workplace Drug Testing Programs.

** To be reported positive for methamphetamine, a specimen must also contain amphetamine at a concentration equal to or greater than 100ng/ml.

*** In no event will the cutoff limits set forth in this paragraph be less than the cutoff limits set forth in the Technical Guidelines adopted from time to time by the United States Department of Health and Human Services.

**** The Medical Review Officer will not accept assertions that a positive THC resulted from the use of CBD products, hemp oil or the injection of hemp products, and therefore verify a marijuana test negative.

10.15.1 If an instant drug test is requested by the Contractor and the Contractor Personnel test results are positive, the Contractor Personnel will be removed from the Jobsite until the result can be verified by laboratory analysis. If the result is confirmed positive, the Contractor Personnel will be prohibited from performing work on all AEP owned properties. If the result is confirmed negative, the Contractor Personnel may return to the Jobsite. The Owner will not be responsible for any back pay to the employee.

10.15.2 Contractor shall implement a substance abuse prevention program throughout the duration of the Work. The program shall be provided to Owner for review at least 30 days prior to beginning Work, or within the timeframe described in the Contract.

10.16 Critical Lifts

10.16.1 When performing Work requiring critical lifts, Contractor shall comply with Owner's critical lift policy, including permits. Contractor may use its critical lift policy with prior review and written approval by Owner. To be considered, Contractor must submit its critical lift policy to Owner at least sixty (60) days in advance of critical lift activities.

- 10.16.2 All critical lift plans must be submitted to Owner for review at least forty-eight (48) hours in advance of any critical lift.
- 10.17 Wind Energy Facility Specific Requirements
- 10.17.1 Contractor access to wind turbines is limited to authorized Contractor Personnel only.
- 10.17.2. Turbine doors must be closed and locked when unattended.
- 10.17.3 Lone work by Contractor Personnel in wind turbines is prohibited.
- 10.17.4 Contractor's plan for working at heights shall comply with ANSI/ASSE Z359.2, *Minimum Requirements for a Managed Fall Protection Program*.
- 10.17.4.1 While working at heights in wind turbines, at least two Contractor Personnel performing Work at the turbine shall be trained in assisted rescue and self-rescue techniques. All rescue training must be specific to the rescue equipment provided by Contractor for such use.
- 10.17.4.2 Rescue equipment shall not be used for hoisting.
- 10.17.4.3 While performing Work in a commissioned turbine, an Automated External Defibrillator ('AED') and fire extinguisher must be present (i.e., in the nacelle when performing Work at heights) and Contractor Personnel must be trained in their use.
- 10.17.5 Contractor shall have a Dropped Object Prevention Program
- 10.17.5.1 Pants and shirt pockets shall be empty while climbing. All tools and equipment must be carried in a topped container designed to prevent spillage when inverted.
- 10.17.5.2 Radios must be holstered and tethered.
- 10.17.5.3 Appropriately rated tethers or lanyards must be used to secure tooling while it is in use and/or while working next to open hatches, unprotected openings, when Work is being performed from the ladder, or while working on top of the nacelle.
- 10.17.5.4 Magnetic trays must be used when working with small metallic parts.
- 10.17.5.5 All hatches must remain closed when not in use.
- 10.17.5.6 All materials stored in wind turbines must be kept in containers that close and be kept at least four feet from any opening.
- 10.17.5.7 A drop/fall zone shall be established and delineated commensurate with Work scope, but in no case less than 50 feet from the base of the turbine.
- 10.17.5.8 When hoisting, containers shall be rated for the intended load, topped and designed to prevent spillage when inverted.
- 10.17.6 Contractor shall have a program to protect Contract Personnel from the hazards of falling ice from turbines, cranes, and other elevated equipment.
- 10.18 Energy Storage Facility Specific Requirements
- 10.18.1 Contractor access to energy storage enclosures shall be limited to authorized Contractor Personnel only.
- 10.18.2 Contractor shall have a program to train personnel on the significance of different alarms and the corresponding action for personnel to take in case of an alarm while onsite.

10.19 Substation Facility Specific Requirements

10.19.1 All mobile and aerial equipment requires the use of a spotter when in use in the substation.

11.0 TOOLS

Amended language:

11.2 ~~Use of pocket knives or non-safety utility knives is prohibited, shall not be used for cutting/stripping unless it is impossible to utilize another tool designed for that task. Not having the proper cutting tool available on site is not an excuse for using knives.~~ Cutting tools other than a knife (i.e., wire cutters/strippers, side cutters, snips and other cutting tools) shall always be used first. A safety utility knife with an automatic retracting blade or other means of blade protection would be the second selection. ~~The use of a company issued pocket knife or nonsafety utility knife is only permitted if a safety utility knife or other cutting tool cannot be used.~~ The second option ~~and third option (knives)~~ can only be used in combination with wearing appropriate hand protection, as determined by the Job Briefing.

Additional requirements:

11.4 Grinders shall not be used without machine guarding. Guarding must be installed per manufacturer requirements and appropriate for wheel type.

11.5 Hose safety whip checks shall be utilized on all pneumatic air hose assemblies.

12.0 REPORTING REQUIREMENTS

Amended language:

12.1 Safety Event Reporting: Contractor shall report to Owner all Contractor Personnel safety-related events in accordance with any Jobsite or Work specific contractual arrangements in place between Contractor and Owner or the applicable AEP General Terms and Conditions, and the requirements listed below. Safety-related events include but are not limited to the following:

[Replace existing list with the following:]

12.1.1 Near Miss events

12.1.2 First aid (beyond minor)

12.1.3 OSHA recordable injuries

12.1.4 Fatalities

12.1.5 Arc flash event (those not reported in 12.1.1)

12.1.6 Vehicle incidents, preventable and non-preventable (Owner and Contractor to agree upon reporting threshold)

12.1.7 Spills (any release that makes contact with the earth, or exceeds the local reporting requirements for environmental spills, or any spills that threatens navigable waterways or streams.)

12.1.8 Utility strikes

12.1.9 Energy control errors (Lock Out Tag Out (LOTO), Clearance, and Switching and Tagging)

12.1.10 Visits by a safety regulatory agency

12.1.11 Citations from a safety regulatory agency

12.1.12 Property damage incidents (Owner and Contractor to agree on reporting threshold)

12.1.13 Equipment incidents (Owner and Contractor to agree on reporting threshold)

Amended language:

12.5 Monthly Reporting: Contractors with a scope of Work greater than or equal to 30 calendar days shall submit monthly reports to Owner that include at a minimum, the following:

[Replace existing list with the following]

12.5.1 Monthly Work hours for all Contractor Personnel

12.5.2 Number and description of monthly OSHA recordable incidents and fatalities, including lost time and restricted days

12.5.3 OSHA recordable incident-rate and OSHA lost time injury rate (year to date and project to date)

12.5.4 Summary of monthly first aid incidents (number, category)

12.5.5 Summary of monthly Near Miss events (number, category)

12.5.6 Summary of monthly vehicle and property damage incidents (number, category)

12.5.7 Summary of monthly Job Site Observations performed per Section 14.0 (number, type, open/resolved)

12.5.8 Description of monthly safety awareness initiatives/campaigns

12.5.9 Description of Contractor's plans to address upcoming Work hazards

13.0 OWNER JOBSITE OBSERVATIONS/AUDITS

NONE

14.0 CONTRACTOR JOBSITE OBSERVATIONS

NONE

15.0 PROHIBITED FROM JOBSITE

Additional requirement:

15.10 Pets are prohibited on all Owner Jobsites.

16.0 AEP POLICIES AND PROCEDURES

NONE

17.0 DEFINITIONS AND ABBREVIATIONS

Amended language:

17.2 **AEP General Terms and Conditions** means the applicable AEP general terms and conditions referenced in the Contract which may be one of the following: AEP General Terms for Labor and Services; AEP General Terms and Conditions for Engineering, Procurement and Construction Work; Electric Transmission Texas (ETT) General Terms and Conditions for Labor and Services; OVEC/IKEC General Terms for Labor and Services; or OVEC/IKEC General Terms and Conditions for Engineering, Procurement and Construction

Work (as amended from time to time). If no separate AEP general terms and conditions are referenced, the capitalized term shall mean the applicable terms and conditions of the Contract.

- 17.3 **Business Unit (BU)** means for the purposes of these AEP Safety and Health Supplemental Terms and Conditions, a division of AEP that is responsible for providing a product line or service area to the affiliated companies of the American Electric Power System separately identified so each line or service area is considered a business [For purposes of these AEP Safety and Health Supplemental Terms and Conditions: AEP Distribution, AEP Vegetation Management, AEP Generation, AEP Telecom, AEP Transmission, ~~and~~ AEP Workplace Services, and AEP Energy Supply].

Additional definitions:

- 17.14 **Business Unit Safety and Health Designee** means the AEP Representative designated with authority over safety and health for Work performed for the applicable Business Unit.
- 17.15 **Contract** means the written agreement creating obligations intended to be enforceable by law by and between AEP and Contractor
- 17.16 **Contractor** means the entity as specified in the contracting instrument creating the Contract.
- 17.17 **EMT** means Emergency Medical Technician.
- 17.18 **EMS** means Emergency Medical Services.
- 17.19 **Job Briefing** means a discussion of a completed Job Briefing Form led by Contractor Personnel in charge of the job or task that includes all employees on site affected by the job or task scope. At a minimum, the discussion must include: hazards associated with the job, Work procedures involved, special precautions, energy source controls and personal protective equipment requirements.
- 17.20 **Job Hazard Analysis (JHA)** means a detailed three step analysis that helps eliminate and/or reduce risk. This three-step process breaks each task down into basic job steps, identifies existing and potential hazards associated with each step and provides recommendations/procedures to eliminate, reduce or control hazards, and the option of assessing potential severity.
- 17.21 **Job Site Observation (JSO)** means a formalized procedure to observe a job task for the purpose of identifying and reinforcing safe behaviors, and eliminating unsafe behaviors. Job Site Observations are not inspections or audits.
- 17.22 **Near Miss** means an incident in which no property was damaged and no personal injury was sustained, but where, given a slight shift in time or position, damage or injury easily could have occurred.
- 17.23 **Owner** means any one or all of the companies of the American Electric Power System as may be specified in the Contract.
- 17.23 **Pre-Work Jobsite Information Summary (PJIS)** means a summary of characteristics, conditions and design information related to the safety of the Work, along with requirements for additional pre-Work planning (e.g., direction on whether Contractor must complete a WSHP and/or a Job Hazard Analysis (JHA)). The PJIS will be provided to Contractor and is intended to provide a basis for initial planning purposes only and Owner does not make any warrant or representation, express or implied, that the PJIS is accurate,

complete, comprehensive, or all-inclusive, or that items not listed will not be present or pose no threat to Contractor Personnel safety or health.

- 17.24 **Work Safety and Health Plan (WSHP)** means WSHP is a structured document that details the scope of Work and related safety controls for Owner review.

Pre-Work Hazard Assessment (PWA)

Work Description: _____

Work Location: _____

The scope of this Work may involve certain hazards requiring Contractor to implement controls to eliminate or mitigate personnel exposures. The hazards and hazard-producing activities checked below are anticipated as best as can reasonably be determined by Owner to be those with the potential to pose risks to safety and health during the Work. This list has been developed by Owner for its and Contractor's initial planning purposes only. No claim or representation is expressed or implied that it is comprehensive, all-inclusive, accurate, or complete, or that items not listed will not be present or pose no threat to personnel safety or health. If selected below, ensure that the contractor and contractor oversight reads and understands the applicable AEP Policies and Procedures.

* May require site permit

** Reference AEP Contractor Safety Site

Work Activities

<input type="checkbox"/> *Numerous, deep, or complex excavation or trenching*	<input type="checkbox"/> Diving operations	<input type="checkbox"/> Special PPE Requirements _____
<input type="checkbox"/> *Drilling, auguring, boring, or other soil disturbances in areas with congested buried utilities*	<input type="checkbox"/> Prolonged work in tight or awkward locations (ergonomics)	<input type="checkbox"/> Other items list below
<input type="checkbox"/> Working over water	<input type="checkbox"/> Cutting: ** <i>Knife Policy Requirements</i>	<input type="checkbox"/>
<input type="checkbox"/> Operating equipment under or near overhead power lines	<input type="checkbox"/> *Open, installing, removing grating*	<input type="checkbox"/>
<input type="checkbox"/> Crane use Tons Reach Lift ** <i>C-OI - Rigging and Hoisting</i>	<input type="checkbox"/> *Demolition*	<input type="checkbox"/>
<input type="checkbox"/> Multiple cranes operating simultaneously - ** <i>C-OI - Rigging and Hoisting</i>	<input type="checkbox"/> Helicopter operations	<input type="checkbox"/>
<input type="checkbox"/> *Exposed energized electrical lines or equipment ** <i>C-OI-Electric Lines and Equipment Clearance</i>	<input type="checkbox"/> Pile driving	<input type="checkbox"/>
<input type="checkbox"/> Working at heights - ** Fall Protection Requirement FAQ	<input type="checkbox"/> Water impoundment (dam, dike, etc.)	<input type="checkbox"/>
<input type="checkbox"/> Scaffolding _____ft ** <i>Gate Req/Suspended Scaffold Rigging/15' Procedure</i>	<input type="checkbox"/> Heavy earth-moving equipment	<input type="checkbox"/>
<input type="checkbox"/> Stacked work (i.e., working above & below)	<input type="checkbox"/> *High pressure (air, water, steam, gas)*	<input type="checkbox"/>
<input type="checkbox"/> *Permit-required confined space entry* # _____	<input type="checkbox"/> *Clearance Permit* # _____	<input type="checkbox"/>
<input type="checkbox"/> Explosive use/blasting	<input type="checkbox"/> *Hot work*	<input type="checkbox"/>
<input type="checkbox"/> Highly flammable gases or chemicals _____	<input type="checkbox"/> Arc Flash	<input type="checkbox"/>

Worksite Conditions

<input type="checkbox"/> High water table, site subject to flooding, or heavy rains	<input type="checkbox"/> Abandoned-in-place utilities or equipment
<input type="checkbox"/> Contaminated soil or water	<input type="checkbox"/> Low lighting
<input type="checkbox"/> Congested work site	<input type="checkbox"/> Vehicular traffic
<input type="checkbox"/> Adjacent activities:	<input type="checkbox"/> Working around Moving/Operating/Energized Equipment
<input type="checkbox"/> Combustible dust	<input type="checkbox"/> Other items list below
<input type="checkbox"/> High winds	<input type="checkbox"/>
<input type="checkbox"/> Ice/snow/freezing temperatures	<input type="checkbox"/>
<input type="checkbox"/> Rugged, uneven, treacherous terrain or site conditions	<input type="checkbox"/>
<input type="checkbox"/> Animals/insects	<input type="checkbox"/>

Human Performance

<input type="checkbox"/> First time evolution New/ Inexperienced Workforce Plan	<input type="checkbox"/> Error Traps _____
<input type="checkbox"/> Schedule ** "13 Day Rule " S&H T&C Section 3.8	<input type="checkbox"/> Other items list below
<input type="checkbox"/> Non-English Speaking Employees Bilingual Action Plan	<input type="checkbox"/>
<input type="checkbox"/> Confusion/Mix-up potential (labeling, look-alike equipment, etc)	<input type="checkbox"/>
<input type="checkbox"/> Distractive environment	<input type="checkbox"/>

Environmental/IH

<input type="checkbox"/> Arsenic**	<input type="checkbox"/> IDLH atmosphere
<input type="checkbox"/> Asbestos	<input type="checkbox"/> Legionella/biological – circulating water
<input type="checkbox"/> Chemical	<input type="checkbox"/> PCB
<input type="checkbox"/> Cadmium**	<input type="checkbox"/> Lead**
<input type="checkbox"/> ** Negative Exposure Assessment/Weld fume Specifics	<input type="checkbox"/> Plants/Weeds
<input type="checkbox"/> Heat stress	<input type="checkbox"/> Mercury
<input type="checkbox"/> Hazardous Waste	<input type="checkbox"/> Radiation (ionizing & non ionizing)
<input type="checkbox"/> Herbicide/pesticide	<input type="checkbox"/> Silica
<input type="checkbox"/> Hexavalent Chromium**	<input type="checkbox"/> Welding Fume** (Welding, Cutting, Brazing Policy Section)
<input type="checkbox"/> Anhydrous Ammonia**	<input type="checkbox"/> Other items list below
<input type="checkbox"/> Noise Current/existing _____ db	<input type="checkbox"/>
<input type="checkbox"/> Noise created during work _____db	<input type="checkbox"/>



Owner will use the Generation Guideline Implementation of Generation Contractor Supplemental Safety and Health Requirements to determine whether work requires the preparation of a HASP. If a HASP is determined to not be needed (per Decision Flow Chart), the selected contractor will be required to prepare a comprehensive Job Hazard Analysis (JHA) prior to starting work, in accordance with the Safety and Health Requirements. Owner, at its discretion, may waive the HASP requirement if all of the following conditions are met:

1. Low or Limited exposure to the following
 - a. Hazardous energy (such as electrical, pneumatic, hydraulic, etc)
 - b. Crane use or any rigging or hoisting
 - c. Excavation
 - d. Working at heights greater than 6' without primary fall protection (i.e., handrail)
 - e. Asbestos
 - f. Confined Space Entry
 - g. Lead or Heavy Metals, including fumes
 - h. Potential for high severity consequences
2. Contractor safety and health manual which adequately covers the scope of Work.
3. Contractor prepares a quality JHA for the Work.
4. Contractor demonstrates effective hazard control.
5. Contractor has an effective safety and health training program for its employees.

In accordance with the PWSHA and the above guidelines, the contractor who will be selected to perform this work:

_____ is required to prepare a Health and Safety Plan (HASP) and follow the Safety and Health Requirements in their entirety.
 _____ may prepare a comprehensive Job Hazard Analysis (JHA) in lieu of a HASP and paragraph 2.11 applies.
 _____ is exempt with management approval (see below)

The HASP and/or JHA(s) shall be submitted to Owner for review and discussion before Contractor may start work.

AEP Rep. Signature: _____ Date: _____

----- **ONLY REQUIRED IF EXEMPT** -----

Name: _____

Signature: _____

Exemption Expiration Date: _____

Note: Any contractor waived from the Safety and Health Requirements Rev 9 shall be done so in writing by the Facility Manager or Department manager (i.e. Plant manager, EP&FS section or department manager) or designee.

Scope of Work FS-LC-0003 Rev.A

APPENDIX 4

**PUBLIC SERVICE OF OKLAHOMA
FORT SILL
NEW GENERATION PROJECT
PV SOLAR WORK**



**NEW GENERATION ENGINEERING
SPECIFICATION
COVER SHEET**

Specification Number: GEN-PV-2022
Revision: Draft
Date: September 2, 2022

TITLE: USAG Fort Sill – PV Facility Technical Scope of Work

REVISION HISTORY

REV.	SCOPE OF REVISION	APPROVAL
Draft	Draft	



BOUNDLESS ENERGY™

1.0 INTRODUCTION

- 1.1 The Fort Sill PV Solar Work is to include the engineering, procurement, and construction of a 10-14 MW AC photovoltaic solar power generation facility.
- 1.2 The solar module support and drive system can be either fixed tilt, or horizontal single axis tracking.

2.0 DESCRIPTION OF WORK

CONTRACTOR will perform the Work as required for the completion of the following:

- 2.1 Design services and engineering to provide a complete set of signed and sealed civil, structural, and electrical drawings, plans, and specifications, by a licensed professional engineer registered in the state of Oklahoma, for (i) zoning, building, utility interconnection, and other permitting; (ii) construction plans, details, and As Built Drawings, and (iii) provide technical support to interpret plans and specifications.
- 2.2 Design and engineering for the Facility will conform to Industry Standards and will be consistent with the Contract Documents and the manufacturers' specifications for Equipment and will be appropriate for the operation, maintenance, and repair of the Equipment in accordance with the Requirements.
- 2.3 In those states that require a firm to be licensed to practice engineering or surveying, CONTRACTOR will furnish Owner with evidence that CONTRACTOR holds a current Certificate of Authorization (or its equivalent) issued by the state licensing authorities for professional engineers and surveyors. Prior to commencing work, CONTRACTOR will provide owner with a written list of the names and registration numbers of the engineers and surveyors who will have responsibility for the work or who will sign and seal documents.
- 2.4 For the site location, a foundation design consideration that may be appropriate for the site conditions is a non-penetrating, ballasted system. All supports and ballasts shall be adequate to withstand the soil chemistry and wind forces of the project site location. Foundations shall be of sufficient strength and stiffness to support anticipated loads and load combinations imposed by Industry Codes and Standards.
- 2.5 A geotechnical report, necessary for the siting, construction, installation, and operation of the components of Facility in accordance with their designs and the applicable vendor specifications.
- 2.6 Any investigation of existing structures on the Site, if any, that is necessary for the siting, construction, installation, and operation of the components of Facility in accordance with their designs and the applicable vendor specifications.
- 2.7 Structural foundation work for equipment and buildings.
- 2.8 Excavation and backfilling as required for subsurface piers, inverter(s), foundations, duct banks (if required), concrete structures (if required) and implementation of the SWPPP.

Specification: GEN-PV-2022	Revision: Draft	Page 2 of 3
This document contains proprietary information of American Electric Power Service Corporation and is to be returned upon request. Its contents may not be used for other than the expressed purpose for which loaned without the written consent of American Electric Power Service Corporation.		



BOUNDLESS ENERGY™

- 2.9 Grading of the Site to the final elevations as indicated on the drawings.
- 2.10 Supply and construction of a security fence around the Site as specified in the approved GEN 4550 Solar Projects Technical Spec. The fence shall be electrically grounded according to Article 250.194 of NEC and will comply with all local permits.
- 2.11 Notify Owner ten (10) days in advance of any testing activities. Owner may provide Operating Personnel to witness commissioning, testing, start-up, and performance testing of the Facility.
- 2.12 Ensure proper operation of PV modules through on-site testing or by providing Module Flash Test Data reports from the manufacturer prior to module installation. Testing of the installed modules will be performed per the Performance Acceptance Tests.
- 2.13 Provide manufacturer testing of inverter(s). Testing and commissioning of the inverter(s) will be performed per the Performance Acceptance Tests.
- 2.14 Install mounting posts, tracker frames, motors, and controls according to the installation manuals provided by the manufacturer. Racking posts will not be cut due to Site conditions or post refusal unless approved by Owner.
- 2.15 Fill all holes, particularly on the tracking torque tubes, to prevent insects from nesting inside the racking system.
- 2.16 Provide AC wiring to tracker motors and motor controls according to the installation manuals provided by the manufacturer.
- 2.17 Test racking systems for proper operation and with weather monitoring systems, data aggregation and alarms when tracking systems is used.
- 2.18 Plant controller shall be built to the Control System Requirements in the GEN 4550 Solar Projects Technical Spec.
- 2.19 Other Instrumentation and Controls: Provide the plans and specifications, and install, interconnect, test, and calibrate systems per the manufacturer's recommendations.
- 2.20 Data from all Major Equipment, including but not limited to inverters with string level information, trackers (if applicable), meter, weather station, and transformers, will be routed to the RTU.
- 2.21 Meteorological station shall meet the requirements described in the GEN 4550 Solar Projects Technical Spec.
- 2.22 Owner will install revenue accuracy type metering off site at the POI. CONTRACTOR to provide a check metering system with all necessary equipment to include fused potential transformers, current transformers and digital meter to facilitate measurement of the power flow (MW, MVAR), power factor, voltage, and current on a total and per phase basis.
- 2.23 Owner-approved gravel or low-growth seed mix by hydro seeding or hay mulching will be applied to the Site after adequately preparing the Site by spraying the Site with the use of a non-selective herbicide, clearing the dead materials, regrading as necessary, and ensuring the proper soil pH.

Specification: GEN-PV-2022	Revision: Draft	Page 3 of 3
This document contains proprietary information of American Electric Power Service Corporation and is to be returned upon request. Its contents may not be used for other than the expressed purpose for which loaned without the written consent of American Electric Power Service Corporation.		