



Department of Energy

Bonneville Power Administration
P.O. Box 3621
Portland, Oregon 97208-3621

FREEDOM OF INFORMATION ACT PROGRAM

October 7, 2021

In reply refer to: FOIA #BPA-2021-00610-F

Brian Mulhollen
Heli-Dunn
3727 International Way
Medford, Oregon 97504
Email: bmulhollen@heli-dunn.com

Dear Mr. Mulhollen,

This communication concerns your agency records request submitted to the Bonneville Power Administration (BPA), made under the Freedom of Information Act, 5 U.S.C. § 552 (FOIA). Your request was received on April 21, 2021, and formally acknowledged on May 4, 2021.

Request

“Any documents such as a bid proposals, NTP (notice to proceed) or project planning documents including safety plans, emails related to aerial saw / topping work performed by Rotor Blade LLC or Swanson Aviation Group and / or any other helicopter company performing aerial saw trimming by helicopter in 2020 and 2021.”

Response

BPA gathered responsive records from knowledgeable agency personnel in Supply Chain Services, Contracts & Strategic Sourcing. That collection comprised 296 pages. Of those 296 pages, 143 pages are herein released to you with 3 of those pages containing redactions applied under 5 U.S.C. § 552(b)(5) (Exemption 5), and with 7 of those pages containing redactions applied under 5 U.S.C. § 552(b)(6) (Exemption 6), as described below. Of the 296 pages gathered in response to your request, 153 pages are withheld from release in total under 5 U.S.C. § 552(b)(3) (Exemption 3), and, in the alternative, under 5 U.S.C. § 552(b)(4) (Exemption 4). A full explanation of the agency’s exemption and withholding decisions follows.

Explanation of Exemptions

The FOIA generally requires the release of all agency records upon request. However, the FOIA permits or requires withholding certain limited information that falls under one or more of nine statutory exemptions (5 U.S.C. §§ 552(b)(1-9)). Further, section (b) of the FOIA, which contains

the FOIA's nine statutory exemptions, also directs agencies to publicly release any reasonably segregable, non-exempt information that is contained in those records. BPA has done this.

Exemption 3

Exemption 3 permits withholding of material under the non-disclosure provisions of other federal statutes. A statute may qualify for Exemption 3 if it "requires that the matters be withheld" or "establishes particular criteria for withholding" (5 U.S.C. § 552(b)(3)). BPA is required by Exemption 3 and 41 U.S.C. § 4702 to withhold certain bidder submittal records. 41 U.S.C. § 4702 exists as a prohibition on the public release of certain proposal-submittal information that otherwise might be responsive to a FOIA request. BPA is required by Exemption 3 and 41 U.S.C. § 4702 (as incorporated into, and directed by, the Bonneville Purchasing Instructions) to withhold both unsuccessful bidder submittal records, and any awarded submittal records, if the awarded bidders' submittal information were not incorporated into the awarded contract(s). BPA here relies on Exemption 3 and 41 U.S.C. § 4702 to withhold those bidder submittal records.

Exemption 4

Prior to publicly releasing agency records, BPA is required by Exemption 4 to solicit objections to the public release of any third party's confidential commercial information contained in the responsive records set. BPA provided Swanson Group Aviation LLC ("Swanson") with an opportunity to formally object to the public release of their information contained in BPA records. Swanson submitted their objections to BPA. BPA accepted those objections, based on guidance available from the U.S. Department of Justice, and is withholding Swanson's commercial confidential information from public release, in their entirety.

Exemption 5

Exemption 5 protects "inter-agency or intra-agency memorandums or letters which would not be available by law to a party other than an agency in litigation with the agency" (5 U.S.C. § 552(b)(5)). In plain language, the exemption protects privileged records. The FOIA's Exemption 5 deliberative process privilege protects records showing the deliberative or decision-making processes of government agencies. Records protected under this privilege must be both pre-decisional and deliberative. A record is pre-decisional if it is generated before the adoption of an agency policy. A record is deliberative if it reflects the give-and-take of the consultative process, either by assessing the merits of a particular viewpoint, or by articulating the process used by the agency to formulate a decision. In this case, BPA relies on Exemption 5 to protect information about ongoing and future contract formation and negotiation practices and processes. The information redacted in the records set being released to you reflects the agency's pre-decisional and deliberative processes in awarding contracts. BPA has considered and declined a discretionary release of some pre-decisional and deliberative information in the responsive records set because disclosure of the records would harm the interests protected and encouraged by Exemption 5.

Exemption 6

Exemption 6 serves to protect Personally Identifiable Information (PII) contained in agency records when no overriding public interest in the information exists. BPA does not find an overriding public interest in a release of the information redacted under Exemption 6—specifically, individuals' cellular telephone numbers. This information sheds no light on the

executive functions of the agency and BPA finds no overriding public interest in its release. BPA cannot waive these redactions, as the protections afforded by Exemption 6 belong to individuals and not to the agency.

Lastly, as required by 5 U.S.C. § 552(a)(8)(A), information has been withheld only in instances where (1) disclosure is prohibited by statute, or (2) BPA foresees that disclosure would harm an interest protected by the exemption cited for the record. When full disclosure of a record is not possible, the FOIA statute further requires that BPA take reasonable steps to segregate and release nonexempt information. The agency has determined that in certain instances partial disclosure is possible, and has accordingly segregated the records into exempt and non-exempt portions.

Fees

There are no fees associated with processing your FOIA request.

Certification

Pursuant to 10 C.F.R. § 1004.7(b)(2), I am the individual responsible for the records search, withholding decisions, and records release described above. Your FOIA request, BPA-2021-00610-F is now closed with the responsive agency records provided.

Appeal

The adequacy of the search may be appealed within 90 calendar days from your receipt of this letter pursuant to 10 C.F.R. § 1004.8. Appeals should be addressed to:

Director, Office of Hearings and Appeals
HG-1, L'Enfant Plaza
U.S. Department of Energy
1000 Independence Avenue, S.W.
Washington, D.C. 20585-1615

The written appeal, including the envelope, must clearly indicate that a FOIA appeal is being made. You may also submit your appeal by e-mail to OHA.filings@hq.doe.gov, including the phrase "Freedom of Information Appeal" in the subject line. (The Office of Hearings and Appeals prefers to receive appeals by email.) The appeal must contain all the elements required by 10 C.F.R. § 1004.8, including a copy of the determination letter. Thereafter, judicial review will be available to you in the Federal District Court either (1) in the district where you reside, (2) where you have your principal place of business, (3) where DOE's records are situated, or (4) in the District of Columbia.

Additionally, you may contact the Office of Government Information Services (OGIS) at the National Archives and Records Administration to inquire about the FOIA mediation services they offer. The contact information for OGIS is as follows:

Office of Government Information Services
National Archives and Records Administration
8601 Adelphi Road-OGIS
College Park, Maryland 20740-6001
E-mail: ogis@nara.gov
Phone: 202-741-5770
Toll-free: 1-877-684-6448
Fax: 202-741-5769

Questions about this communication or the status of your FOIA request may be directed to the FOIA Public Liaison Jason Taylor at jetaylor@bpa.gov or 503-230-3537. Questions about this communication may also be directed to James King, CorSource Technology Group LLC, at jjking@bpa.gov or 503-230-7621.

Sincerely,



Candice D. Palen
Freedom of Information/Privacy Act Officer

[Responsive agency records accompany this communication.](#)

King,James J (CONTR) - CGI-7

From: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2
Sent: Monday, May 3, 2021 4:50 PM
To: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2
Subject: Bonneville Power Administration RFQ 4977 Interest Announcement.
Attachments: RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW SOW..pdf

Contractors,

BPA is working towards issuing RFQ 4977 HELI-SAW TREE REMOVAL JONES CANYON-SANTIAM CORRIDOR solicitation by May 7, 2021 with bids due May 13, 2021. BPA desires the performance to start early June and because of this quick turn time this interest announcement is being issued. Please review the attached rough draft Statement of Work for more details.

The objective of this contract is to obtain commercial aviation services (helicopter with pilot(s)), fuel support truck, and ground support equipment and personnel for tree topping services to remove Danger Trees (approximately 3,800) that pose a threat to BPA transmission lines and structures within the Jones Canyon-Santiam corridor from approximately 120 mile to 138 mile. The contractor will use the LiDAR generated Danger Tree Fall Into Analysis and other exhibits to locate the trees from the air that can come within striking distance of the transmission conductors and top them to a height that would eliminate the threat of an outage (MVCD +5ft = 8ft). Equipment necessary-Hydrolic operated device with positive control from pilot. Ability to grapple tree, make cuts with saw, emergency release safety feature and the ability to strategically place the drop offs at the base of the tree or either a pre-determined alternate location.

Does your company have:

1. The equipment necessary and desire to perform these services?
2. The availability to perform these services starting early June?

Please respond by COB on May 4, 2021 or earlier.

Thank you.

Terry Allen Holtcamp, JD

Terry Allen Holtcamp / NSSV.
Contracting Officer / Construction Acquisition Services.
PO Box 61409 Vancouver, WA 98666.
4400 NE 77th Ave, 2nd Floor, Vancouver, WA 98662.
BONNEVILLE POWER ADMINISTRATION
www.bpa.gov 360-619-6440{o} (b) (6) 360.619.6958 {f}



STATEMENT OF WORK.

HELI-SAW TREE REMOVAL JONES CANYON-SANTIAM CORRIDOR.

Part A: General

A.1 Objective

The objective of this contract is to obtain commercial aviation services (helicopter with pilot(s)), fuel support truck, and ground support equipment and personnel for tree cutting services to remove Danger Trees that pose a threat to BPA transmission lines and structures within the Jones Canyon-Santiam corridor from approx. 120 mile to 138 mile. The contractor will use the LiDAR generated Danger Tree Fall Into Analysis to locate the trees from the air that can come within striking distance of the transmission conductors and top them to a height that would eliminate the threat of an outage (MVCD +5ft = 8ft). There may also be localized tree removals on the de-energized side of the corridor to protect infrastructure.

A.2 Background

The Beachie Creek fire has burned 188,374 acres, including approximately 35 miles of the Jones Canyon-Santiam corridor. The following lines were impacted by the Beachie Creek fire; Jones Canyon-Santiam 230kV, McNary-Santiam (de-energized), and Detroit-Santiam 230kV. The McNary-Santiam runs along the corridor and has been de-energized for over 30 years. The LiDAR analysis completed for this corridor depicts trees identified by current line rating and clearance requirements per BPA regulations.

The trees in this area are dead due to the wildfire and are located on steep terrain in remote areas in and around Detroit Lake, OR. Given this steep terrain and risk to personnel on the ground, Helicopter Operations in this area will be the safest means of obtaining system reliability. The land ownership where the fire created these Danger Trees that BPA needs to mitigate is mostly USFS but also contains state, tribal and private timberlands.

A.3 Location

This project is located between structure 121/1 in T9S, R6E, Section 29 and structure 137/7, in T9S, R4E, Section 29 in Linn County, Oregon.

Helicopter Area – USFS

XREF: Line Name	Analysis Area	Section	Approx. Tree Count
JCSB-SANT-1: 230kV (Area 3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1	328
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	1/1 to 5/2	718
JCSB-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	131/1 to 135/2	1,082
JCSB-SANT-1: 230kV (Area 2, Work can start after July 15 th)	HeliSaw Ops Area	128/1 to 131/1	816
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	5/3 to 6/6	36
JCSB-SANT-1:230kV (Area 1, Work can start in June)	HeliSaw Ops Area	136/2 to 137/6	79
<u>Optional</u> : JCSB-SANT-1: 230kV De-energized side of corridor (Area 2/3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1, 128-131/1	800

TOTAL	3,859
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A.4 BPA-Furnished Property and Services

BPA shall furnish the following:

1. Maps (KMZ or another geospatial format)
2. BPA safety guidelines and requirements

A.5 Contractor Furnished Items

The Contractor shall furnish the following:

1. Aircraft, pilot, and fuel.
2. GPS device capable of locating project area and the trees selected to be cut.
3. All equipment, tools, transportation and labor required for the successful execution of this contract, according to the specifications, provisions and attachments contained herein.
4. Personnel Protective Equipment.
5. Safety Plan Accepted by BPA Safety Organization: To include all information from OAP, JHA, and other relevant flight or safety information can be stored in the SP.
6. Ground man with direct communication with pilot.
7. Any required ODOT or Transportation permits to operate adjacent to the Highway 22

F1 – Statement of Work

Part B: Technical Approach/Tasks

B.1 General Requirements

The Contractor shall perform the Vegetation Management tasks as described in this contract by removing the section(s) of the tree that eliminates the trees ability of coming within MVCD + 5ft (i.e. 8ft) of the conductor from the Jones Canyon-Santiam No.1 and Detroit-Santiam No.1 lines. This shall be accomplished with helicopter mounted equipment that contains a grapple and saw combination resulting in the controlled removal of the tree section(s).

B.2 Technical

1. The contractor shall complete all work in phases identified in the maps attached within the exhibits. The maps (KMZ and/or shapefile) have been analyzed to include all trees that have the ability of coming within MVCD + 5ft of the conductor if they fell.
2. The contractor shall locate the trees with the aid of map and guidance from BPA personnel.
3. The contractors helicopter mounted tree topping equipment will be reviewed and accepted by BPA.
4. The contractor shall top all trees identified to heights that cannot violate the following clearance requirements: 8 feet (MVCD + 5ft) of clearance for 230kV transmission lines. These tree locations have been identified and will be provided in a Danger Tree Fall-Into Analysis.
5. Primary Landing zone will be located at 44.72733 N, 122.5656 W on public land and an alternate in the parking lot on US Army Corps of Engineers (USACE) property below the Detroit Dam at Lat. 44.72733 N, Long. 122.25656 W (Contractor shall coordinate with BPA and USACE personnel as appropriate to gain access to the secondary landing site / there will be an optional secured work site (behind the fence) area at Lat 44.72368 N, Long. 122.25279 W for equipment, including helicopter for overnight storage / site may be allowed for overnight storage of RV/trailers.
6. Minimum Fly Time (based on daily rate): A full day of fly time will be identified per CSHRPS, Chapter 4 Section 6. When the maximum hours can't be reached for the day, an hourly rate would be applied based on the pro-rated scale from the daily rate. This would be applicable for uncontrollable stoppages, weather, or BPA enforced.
7. Tree Count/Day: It is anticipated that 300-450 trees will be topped given a full fly day per CSHRPS, Chapter 4 Section 6.
8. If modifications are required, they shall be approved by the Contracting Officer or Contracting Officer's Representative (COR) prior to implementation.

B.3 Environmental Protection

1. The Contractor shall follow all weather restriction requirements. Operations are not allowed during periods of excessive moisture, wind, or during periods of low visibility (darkness or fog). The Contractor is responsible for making adjustments to schedules to assure compliance is maintained.
2. The Contractor shall avoid depositing vegetation debris in areas marked on the ground, outlined on maps and geospatially identified. (i.e. roads, trails, waterways, trails, etc.)

F1 – Statement of Work

3. The contractor shall follow any restrictions and/or mitigations listed within the environmental review document (i.e. Categorical Exclusion, Environmental Analysis or Supplemental Analysis)

B.4 Notifications and Record-Keeping

1. The Contractor shall submit flight plans and abide by all other FHA requirements.
2. The Contractor shall operate in accordance with BPA Flight Services requirements by coordinating with the BPA Flight Services office within two business days following the awarding of this contract.

B.5 Safety and Property Protection

1. The Contractor shall be ISNetworld certified with a B or better rating.
2. The Contractor shall follow the work procedures provided in the *Contractor Safety and Health Requirements For Prime and Subcontractors*.
3. The full text of the *Contractor Safety and Health Requirements for Prime and Subcontractors* is available at <http://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>
4. The Contractor shall follow all state and federal laws.
5. After award, the Contractor shall be required to submit for acceptance:
 - a. Aviation Job Hazard Analysis (JHA) approved by BPA Flight Services.
 - b. Site Specific Safety Plan approved by BPA Safety department.
 - c. Daily safety job briefing will be conducted in accordance with the Contractor's JHA and BPA's Accident Prevention Manual J-1 job briefing protocol.
6. The Contractor shall furnish all safety equipment required by BPA, federal and state regulatory agencies for both flight operations and ground tree cutting operations.
7. All transmission lines will be energized during the helicopter tree topping operation. MAD shall not be violated by equipment and/or vegetation.

5.6 Deliverables

The Contractor shall use the aerial tree cutting devices to top identified trees along the Jones Canyon-Santiam corridor and without damaging BPA transmission structures/hardware. Once removed, the cut tree sections shall be removed in such a way that they are not allowed to fall onto, strike, or slide into BPA transmission lines or structures. In addition, removed tree pieces shall not be allowed to fall onto and block BPA access/ROW roads or US Forest Service roads and/or trails unless approved by Contracting Officer's Representative (COR). The contractor is not responsible for removing the cut tree trunk and root ball, debris, however, debris shall be piled such that it does not exceed 6 feet above ground. The remaining tree can be left in place. BPA reserves the right to deviate work areas due to fire restrictions, environmental concerns and other timing issues and risks identified within the work areas. This includes but is not limited to conducting work on the de-energized side of the corridor.

5.7 Performance Period

BPA's primary objective is to conduct work on the energized side of the corridor in areas 1 and 3 in June and then the energized side of area 2 after July 15th. In the event that BPA determines that the risk of waiting until July 15 to start area 2 would conflict with Industrial Fire Precaution Levels (IFPL), BPA may approve work on the de-energized side of the corridor in areas 1 and 3 in June as well. Any remaining work will then be rescheduled after October 1st when IFPL and environmental restrictions have been lifted. When BPA notifies contractor that work can resume, contractor shall be on site and working within 15 calendar days.

F1 – Statement of Work

PART C – Commercial Aviation Services Requirements

Refer to the Contractor Safety and Health Requirements for Prime and Subcontractors, specifically Chapter 4, sections 1 and 6.

King, James J (CONTR) - CGI-7

From: Holtcamp Jr, Terry A (BPA) - NSSV-4400-2
Sent: Thursday, May 6, 2021 12:36 PM
To: Holtcamp Jr, Terry A (BPA) - NSSV-4400-2
Subject: Bonneville Power Administration RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation Package.
Attachments: RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation Package..pdf

Contractors,

BPA is issuing RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation package for your review and consideration in providing a bid. Because of email data limitation, this RFQ is published in two parts. The first part is the Contractual portion and is attached. It contains the contract terms and conditions/provisions and Statement of work. The second part is the technical portion which contains the maps, KMZ files, and the Contractor Safety and Health Requirements For Prime and Subcontractors(CSHRPS) and can be accessed by clicking this link (<https://drive.max.gov/share/e7549261033d42dc>) and entering the password- RFQ 4977. Please download these documents and use for the solicitation and potential award. If contractor is not awarded the contract, please delete these files.

Please know that your proposal will contain two separate parts:

1. Part one will be the Business/Pricing Proposal(see page 4 of F5) which will contain:
 - a. Completed and signed Form 4220.55 (Section A of the RFP/RFQ)
 - b. Completed Provisions 4-1, 4-3, 8-1, 9-1 and 11-1 of Section F, Attachment 5 of the RFP/RFQ.
 - c. The offeror's price proposal shall consist of a completed Schedule of Items as it appears in Section B of the RFP/RFQ. Offeror shall copy, complete and submit the Schedule as its pricing submission under this Business Proposal requirement.
 - d. The offeror's price proposal shall also address the following areas and include the documents below:
Section F4 Schedule of Prices.
2. Part two will be the Technical/Management (Non-Price/Cost)(see page 4 of F5); part which will contain the responses to the evaluation factors:
 - a. Work Plan,
 - b. Key Personnel,
 - c. Past Performance/Experience,
 - d. and Equipment).

BPA will review the technical management/evaluation factors responses and give each factor a pass or no pass. If the proposal responses contain the minimum criteria required for each factor, the proposal will receive a pass and then BPA will review the business/pricing part. If all proposals receive an overall pass(technically acceptable), then the lowest priced submission will be considered for award.

We understand that these solicitation/proposal requirements may be new and I am here to work with you if, after review, you need further assistance.

Significant Dates:

- RFQ questions need to be submitted to me by 05/14/2021.
- BPA responses will be delivered 05/17/2021.
 - If significant questions remain after receipt of BPA responses to the questions, please let me know and BPA may elect to have a pre-proposal conference.

- Bids are due 05/19/2021.
- Start work early 06/2021

Thank you for your consideration in providing a bid.

Sincerely,

Terry Allen Holtcamp / NSSV.
Contracting Officer / Construction Acquisition Services.
PO Box 61409 Vancouver, WA 98666.
4400 NE 77th Ave, 2nd Floor, Vancouver, WA 98662.
BONNEVILLE POWER ADMINISTRATION
www.bpa.gov 360-619-6440 [o] (b) (6) [c] 360.619.6958 [f]

**U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION
SOLICITATION AND AWARD FOR CONSTRUCTION**

PAPERWORK REDUCTION ACT BURDEN DISCLOSURE STATEMENT

This data is used to solicit requests for quote or proposal for a construction contract. This form will assist in ensuring all required supplier contractual elements have been considered and reviewed. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching for existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send any comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of the Chief Information Officer, Enterprise Policy Development & Implementation Office, IM-22, Paperwork Reduction Program (OMB), US Department of Energy, 1000 Independence Ave, SW, Washington, DC 20585-1290; and to the Office of Management & Budget (OMB), OIRA, Paperwork Reduction Project (OMB), Washington, DC 20503.

SOLICITATION

1. Solicitation Number: BPA- - -	2. Project Name (if applicable):	3. Date Solicitation Issued:
4. Contract Number: BPA- - -	5. Requisition/Purchase Request Number (used for COOP event only):	6. Proposal/Quote Due Date/ Time (Pacific): AM PM

7. Proposals/Quotes are due electronically or hard copy Address:

FOR INFORMATION CONTACT: ►	8a. Name of Contract Specialist:	8b. Phone and Email: <div style="background-color: black; color: red; text-align: center; padding: 2px;">(b) (6)</div>
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9. Pre-Bid Conference and/or Site Tour Info:

10. Contract Magnitude:

11. Brief Description of Work Required:

12a. The Contractor shall begin performance within calendar days of receiving award or notice to proceed.	13b. Calendar Days:
12b. Performance shall be completed by . The performance period is negotiable non-negotiable.	
13a. The Contractor must furnish any required performance and payment bonds? (If "YES", indicate within how many calendar days after award the bonds will be provided.) <input type="checkbox"/> YES <input type="checkbox"/> NO	

OFFEROR (To Be Completed By Offeror)

14. Name, Phone, E-mail and Address of Offeror:

15. Acknowledgement of Amendments (The offeror acknowledges receipt of amendments to the solicitation.)							
15a. Amendment Number:							
15b. Date:							

Note: All Proposals/Quotes are subject to the work requirements, as well as other provisions and clauses incorporated in this solicitation whether in full text or by reference.

U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION
SOLICITATION AND AWARD FOR CONSTRUCTION

OMB

AWARD *(To Be Completed At Award)*

16. Amount:	17. Effective Date:	18. Accounting and Appropriation Data <i>(used for COOP event only)</i> :
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Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by this (i) contract award, (ii) the solicitation, and the (iii) items incorporated by reference, such as clauses, representations, certifications, references and specifications.

19a. Name and Title of Contractor or Person Authorized to sign:	20a. Contracting Officer:
---	---------------------------

19b. Signature	19c. Date:	20b. Contracting Officer Signature	20c. Date:
By: _____ <i>(Signature of person authorized to sign)</i>		By: _____ <i>(Signature of Contracting Officer)</i>	

B. SCHEDULE OF ITEMS/CONTINUATION PAGE

Line Item	Description.	Quantity	Unit	Unit Price	Amount
0001	Full Fly Day/Energized Side / Approx 2,800 Trees. Firm Fixed Price.		Day		
0002	Initial Mobilization/Demobilization cost. Firm Fixed Price.	1	Lump Sum		
0003	Permit and Flagging Cost. Pass through to BPA and must be supported at time of invoicing. Time and Materials. Baseline of \$3,000 entered by BPA(do not change and please see notes in the Schedule of Prices / Line Item 0003).	1	Lump Sum		\$3,000.00
1001a-c.	Optional Work as approved by BPA / See Schedule of Prices Line Items 1001a-1001c. This amount will change when BPA approves options	1	Lump Sum		TBD
				Total:	\$3,000.00

C. SUBMISSION OF INVOICES & CONTACT INFORMATION

1. Invoices should be sent electronically to:

Jennifer Stombom at jlknollinger@bpa.gov.

2. Payment Terms:

NET 30.

3. Bonneville Contact Information:

Bonneville Office:
Attention:
Contact Email:

TFBV
Jennifer Stombom,
jlknollinger@bpa.gov

4. Contractor Contact Information:

Company Name:
Attention:
Contact Email:

D. DELIVERY INFORMATION

Line Item No.	Period of Performance/ Delivery Date	Quantity	Unit	Delivery Terms	Ship To Address or Place of Performance
0001-0003	2/28/2022	1.00	Job	Block 11	See SOW
1001a-c	2/28/2021	1.00	job	Block 11	See SOW
				n/a	
				n/a	
				n/a	

Special Delivery Instructions:

BPA reserves the right to adjust the performance periods of the identified areas as required by the project needs. If fire or environmental concerns arise, BPA may choose to assign the contractor to a different area.

E. INSPECTION AND ACCEPTANCE TERMS

All line item(s) in Section B will be inspected and accepted by the COR at the address specified in Section C unless otherwise stated in the table below.

Line Item No.	Inspection At/Inspection By		Acceptance At/Acceptance By		Additional Info
0001-0003	Government	Government	Government	Government	
1001a-c	Government	Government	Government	Government	

F. ATTACHMENTS

	Description
F1	SOW included in solicitation emial package. Other Technical Specifications will be uploaded to www.drive.max.gov: https://drive.max.gov/share/e7549261033d42dc 1) FINAL CSHRPS-V21-2-06OCT2020 2) Heli-LZ_Locations-Pics 3) JCSB_SANT_1_Beachie_Fall_Into_1_of_3 4) JCSB_SANT_1_Beachie_Fall_Into_2_of_3 5) JCSB_SANT_1_Beachie_Fall_Into_3_of_3 6) RFQ 4977 Map and Timing
F2	Contract Clauses.
F3	Wage Determinations - Oregon State Wide for (Linn County OR & Marrion Conty OR). SCA Wage Number 1977-0079 Rev 04 03/15/2021.
F4	Schedule of Prices.
F5	Solicitation Provisions.

STATEMENT OF WORK.

HELI-SAW TREE REMOVAL JONES CANYON-SANTIAM CORRIDOR.

Part A: General

A.1 Objective

The objective of this contract is to obtain commercial aviation services (helicopter with pilot(s)), fuel support truck, and ground support equipment and personnel for tree cutting services to remove Danger Trees that pose a threat to BPA transmission lines and structures within the Jones Canyon-Santiam corridor from approx. 120 mile to 138 mile. The contractor will use the LiDAR generated Danger Tree Fall Into Analysis to locate the trees from the air that can come within striking distance of the transmission conductors and top them to a height that would eliminate the threat of an outage (MVCD +5ft = 8ft). There may also be localized tree removals on the de-energized side of the corridor to protect infrastructure.

A.2 Background

The Beachie Creek fire has burned 188,374 acres, including approximately 35 miles of the Jones Canyon-Santiam corridor. The following lines were impacted by the Beachie Creek fire; Jones Canyon-Santiam 230kV, McNary-Santiam (de-energized), and Detroit-Santiam 230kV. The McNary-Santiam runs along the corridor and has been de-energized for over 30 years. The LiDAR analysis completed for this corridor depicts trees identified by current line rating and clearance requirements per BPA regulations.

The trees in this area are dead due to the wildfire and are located on steep terrain in remote areas in and around Detroit Lake, OR. Given this steep terrain and risk to personnel on the ground, Helicopter Operations in this area will be the safest means of obtaining system reliability. The land ownership where the fire created these Danger Trees that BPA needs to mitigate is mostly USFS but also contains state, tribal and private timberlands.

A.3 Location

This project is located between structure 121/1 in T9S, R6E, Section 29 and structure 137/7, in T9S, R4E, Section 29 in Linn County, Oregon.

Helicopter Area – USFS

XREF: Line Name	Analysis Area	Section	Approx. Tree Count
JCSB-SANT-1: 230kV (Area 3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1	328
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	1/1 to 5/2	718
JCSB-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	131/1 to 135/2	1,082
JCSB-SANT-1: 230kV (Area 2, Work can start after July 15 th)	HeliSaw Ops Area	128/1 to 131/1	816
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	5/3 to 6/6	36
JCSB-SANT-1:230kV (Area 1, Work can start in June)	HeliSaw Ops Area	136/2 to 137/6	79
<u>Optional</u> : JCSB-SANT-1: 230kV De-energized side of corridor (Area 2/3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1, 128-131/1	800

TOTAL	3,859
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A.4 BPA-Furnished Property and Services

BPA shall furnish the following:

1. Maps (KMZ or another geospatial format)
2. BPA safety guidelines and requirements

A.5 Contractor Furnished Items

The Contractor shall furnish the following:

1. Aircraft, pilot, and fuel.
2. GPS device capable of locating project area and the trees selected to be cut.
3. All equipment, tools, transportation and labor required for the successful execution of this contract, according to the specifications, provisions and attachments contained herein.
4. Personnel Protective Equipment.
5. Safety Plan Accepted by BPA Safety Organization: To include all information from OAP, JHA, and other relevant flight or safety information can be stored in the SP.
6. Ground man with direct communication with pilot.
7. Any required ODOT or Transportation permits to operate adjacent to the Highway 22

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Part B: Technical Approach/Tasks

B.1 General Requirements

The Contractor shall perform the Vegetation Management tasks as described in this contract by removing the section(s) of the tree that eliminates the trees ability of coming within MVCD + 5ft (i.e. 8ft) of the conductor from the Jones Canyon-Santiam No.1 and Detroit-Santiam No.1 lines. This shall be accomplished with helicopter mounted equipment that contains a grapple and saw combination resulting in the controlled removal of the tree section(s).

B.2 Technical

1. The contractor shall complete all work in phases identified in the maps attached within the exhibits. The maps (KMZ and/or shapefile) have been analyzed to include all trees that have the ability of coming within MVCD + 5ft of the conductor if they fell.
2. The contractor shall locate the trees with the aid of map and guidance from BPA personnel.
3. The contractors helicopter mounted tree topping equipment will be reviewed and accepted by BPA.
4. The contractor shall top all trees identified to heights that cannot violate the following clearance requirements: 8 feet (MVCD + 5ft) of clearance for 230kV transmission lines. These tree locations have been identified and will be provided in a Danger Tree Fall-Into Analysis.
5. Primary Landing zone will be located at 44.72733 N, 122.5656 W on public land and an alternate in the parking lot on US Army Corps of Engineers (USACE) property below the Detroit Dam at Lat. 44.72733 N, Long. 122.25656 W (Contractor shall coordinate with BPA and USACE personnel as appropriate to gain access to the secondary landing site / there will be an optional secured work site (behind the fence) area at Lat 44.72368 N, Long. 122.25279 W for equipment, including helicopter for overnight storage / site may be allowed for overnight storage of RV/trailers.
6. Minimum Fly Time (based on daily rate): A full day of fly time will be identified per CSHRPS, Chapter 4 Section 6. When the maximum hours can't be reached for the day, an hourly rate would be applied based on the pro-rated scale from the daily rate. This would be applicable for uncontrollable stoppages, weather, or BPA enforced.
7. Tree Count/Day: It is anticipated that 300-450 trees will be topped given a full fly day per CSHRPS, Chapter 4 Section 6.
8. If modifications are required, they shall be approved by the Contracting Officer or Contracting Officer's Representative (COR) prior to implementation.

B.3 Environmental Protection

1. The Contractor shall follow all weather restriction requirements. Operations are not allowed during periods of excessive moisture, wind, or during periods of low visibility (darkness or fog). The Contractor is responsible for making adjustments to schedules to assure compliance is maintained.
2. The Contractor shall avoid depositing vegetation debris in areas marked on the ground, outlined on maps and geospatially identified. (i.e. roads, trails, waterways, trails, etc.)

F1 – Statement of Work

3. The contractor shall follow any restrictions and/or mitigations listed within the environmental review document (i.e. Categorical Exclusion, Environmental Analysis or Supplemental Analysis)

B.4 Notifications and Record-Keeping

1. The Contractor shall submit flight plans and abide by all other FHA requirements.
2. The Contractor shall operate in accordance with BPA Flight Services requirements by coordinating with the BPA Flight Services office within two business days following the awarding of this contract.

B.5 Safety and Property Protection

1. The Contractor shall be ISNetworld certified with a B or better rating.
2. The Contractor shall follow the work procedures provided in the *Contractor Safety and Health Requirements For Prime and Subcontractors*.
3. The full text of the *Contractor Safety and Health Requirements for Prime and Subcontractors* is available at <http://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>
4. The Contractor shall follow all state and federal laws.
5. After award, the Contractor shall be required to submit for acceptance:
 - a. Aviation Job Hazard Analysis (JHA) approved by BPA Flight Services.
 - b. Site Specific Safety Plan approved by BPA Safety department.
 - c. Daily safety job briefing will be conducted in accordance with the Contractor's JHA and BPA's Accident Prevention Manual J-1 job briefing protocol.
6. The Contractor shall furnish all safety equipment required by BPA, federal and state regulatory agencies for both flight operations and ground tree cutting operations.
7. All transmission lines will be energized during the helicopter tree topping operation. MAD shall not be violated by equipment and/or vegetation.

5.6 Deliverables

The Contractor shall use the aerial tree cutting devices to top identified trees along the Jones Canyon-Santiam corridor and without damaging BPA transmission structures/hardware. Once removed, the cut tree sections shall be removed in such a way that they are not allowed to fall onto, strike, or slide into BPA transmission lines or structures. In addition, removed tree pieces shall not be allowed to fall onto and block BPA access/ROW roads or US Forest Service roads and/or trails unless approved by Contracting Officer's Representative (COR). The contractor is not responsible for removing the cut tree trunk and root ball, debris, however, debris shall be piled such that it does not exceed 6 feet above ground. The remaining tree can be left in place. BPA reserves the right to deviate work areas due to fire restrictions, environmental concerns and other timing issues and risks identified within the work areas. This includes but is not limited to conducting work on the de-energized side of the corridor.

5.7 Performance Period

BPA's primary objective is to conduct work on the energized side of the corridor in areas 1 and 3 in June and then the energized side of area 2 after July 15th. In the event that BPA determines that the risk of waiting until July 15 to start area 2 would conflict with Industrial Fire Precaution Levels (IFPL), BPA may approve work on the de-energized side of the corridor in areas 1 and 3 in June as well. Any remaining work will then be rescheduled after October 1st when IFPL and environmental restrictions have been lifted. When BPA notifies contractor that work can resume, contractor shall be on site and working within 15 calendar days.

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PART C – Commercial Aviation Services Requirements

Refer to the Contractor Safety and Health Requirements for Prime and Subcontractors, specifically Chapter 4, sections 1 and 6.

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CONTRACT CLAUSES INCORPORATED BY REFERENCE

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at the following link.

Bonneville Purchasing Instructions provisions and clauses:

<https://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>

- 28-1.1 Contract-Basic Terms (FEB 2020) (28.3.4(a))
- 28-3 Invoice (OCT 2014) (28.3.4(h))
- 28-4.1 Payment – Firm-Fixed-Price (FEB 2020) (28.3.4(i))
- 28-4.2 Payment – Time-and-Materials/Labor Hour (FEB 2020) (28.3.4(j))
- 28-5.1 Inspection/Acceptance – Firm-Fixed-Price (MAR 2018) (28.3.4(k))
- 28-5.2 Inspection/Acceptance – Time-and-Materials/Labor Hour (FEB 2020) (28.3.4(l))
- 28-6 Changes (JUL 2013) (28.3.4(m))
- 28-7 Stop Work Order (MAR 2018) (28.3.4(n))
- 28-8 Force Majeure/Excusable Delay (JUL 2013) (28.3.4(o))
- 28-9.1 Termination for Cause – Firm-Fixed-Price (MAR 2018) (28.3.4(p))
- 28-9.2 Termination for Cause – Time-and-Materials/Labor Hour (MAR 2018) (28.3.4(q))
- 28-10.1 Termination for Convenience – Firm-Fixed-Price (MAR 2018) (28.3.4(r))
- 28-10.2 Termination for Convenience – Time-and-Materials/Labor Hour (MAR 2018) (28.3.4(s))
- 28-11 Warranty (JUL 2013) (28.3.4(t))
- 28-12 Limitation of Liability (JUL 2013) (28.3.4(u))
- 28-13 Disputes (JUL 2013) (28.3.4(v))
- 28-14 Indemnification (MAR 2018) (28.3.4(w))
- 28-16 Title (MAR 2018) (28.3.4(z))
- 28-17 Taxes (JUL 2013) (28.3.4(aa))
- 28-18 Assignment (MAR 2018) (28.3.4(bb))
- 28-19 Other Compliances (JUL 2013) (28.3.4(cc))
- 28-20.2 Requirements Unique to Government Contracts – Services (FEB 2020) (28.3.4(dd))
- 28-21 Order of Precedence (FEB 2020) (28.3.4(ee))
- 28-22 Applicable Law (JUL 2013) (28.3.4(ff))
- 3-9 Restriction on Commercial Advertising (FEB 2020) (3.5.2)
- 4-2 Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (FEB 2020) (4.10.3)
- 4-4 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (FEB 2020) (4.11.5(b))
- 7-39 Option to Extend Services (FEB 2020) (7.9.8(f))
- 10-6 Notification of Employee Rights Under the National Labor Relations Act (OCT 2014) (10.1.7.2)
- 10-22 Paid Sick Leave Under Executive Order 13706 (MAR 2018) (10.1.12.9)
- 14-2 Contract Administration Representatives (MAR 2018) (14.1.5(b))
- 14-6 Variation in Estimated Quantity – Service and Construction Contracts (MAR 2018) (14.6.3(b))
- 14-18 Bankruptcy (OCT 2005) (14.19.3)
- 14-26 Emergency Contingency Notice (FEB 2020) (14.24.2)
- 15-4 Contractor Compliance with Bonneville Policies (FEB 2020) (15.3.1.1(a))
- 15-6 Hazardous Material Identification and Material Safety Data (MAR 2018) (15.4.2)
- 15-12 Contractor Safety and Health (MAR 2018) (15.6.4.1(a))
- 15-13 Contractor Safety and Health Requirements (MAR 2018) (15.6.4.1(b))
- 15-17 Information Assurance (MAR 2018) (15.9.4)
- 16-2 Performance and Payment Bonds – Other Than Construction – *Alternate I* (FEB 2020) (16.2.4.4)
- 21-4 Release of Claims (MAR 2018) (21.3.10.1)

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CONTRACT CLAUSES INCORPORATED BY FULL TEXT

SERVICE CONTRACT LABOR STANDARDS (10-3) (MAR 2018) (10.2.2.3(a))

(a) Definitions. As used in this clause-

"Act" means the Service Contract Labor Standards statute (41 U.S.C. § 6701-6707, et seq.).

"Contractor" when used in any subcontract, shall include the subcontractor, except in the term "Bonneville Prime Contractor."

"Service employee" means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all service persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) Applicability. This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 6702, as interpreted in Subpart C of 29 CFR Part 4.

(c) Compensation.

(1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2)

(i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee not listed therein which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits which are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request for Authorization of Additional Classification and Rate, to the Contracting Officer (CO) no later than 30 days after the unlisted class of employee performs any contract work. The CO shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the CO within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken.

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Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv) Establishing rates.

(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination, depending upon the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option or extension of an existing contract, or in any other case where a contract succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the CO of the action taken, but the other procedures in paragraph (c)(2)(ii) of this section need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits, which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) Adjustment of compensation. If the term of this contract is more than one year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after one year and not less often than once every two years, under wage determinations issued by the Wage and Hour Division.

(d) Obligation to furnish fringe benefits. The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments only in accordance with Subpart D of 29 CFR Part 4.

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- (e) Minimum wage. In the absence of a wage determination for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.
- (f) Successor contracts. If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality, and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the wage determination for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR Part 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR Part 4.10, that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR Part 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for similar services in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Administrative Review Board, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.
- (g) Notification to employees. The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.
- (h) Safe and sanitary working conditions. The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health and safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.
- (i) Records.
 - (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for three years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

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- (i) For each employee subject to the Act:
 - (A) Name, address and social security number;
 - (B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payment in lieu of fringe benefits and total daily and weekly compensation;
 - (C) Daily and weekly hours worked by each employee; and
 - (D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.
- (ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (iii) of this clause. A copy of the report required by subdivision (c)(2)(iv)(B) of this clause will fulfill this requirement.
- (iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.
- (2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.
- (3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the CO, upon direction of the Department of Labor and notification of the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.
- (4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (j) Pay periods. The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.
- (k) Withholding of payments and termination of contract. The CO shall withhold or cause to be withheld from the Bonneville prime contractor under this or any other Government contract with the prime contractor such sums as an appropriate official of the Department of Labor requests, or such sums as the CO decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the CO may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Bonneville may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.
- (l) Subcontracts. The Contractor agrees to include this clause in all subcontracts subject to the Act.
- (m) Collective bargaining agreements applicable to service employees. If wages to be paid or fringe benefits to be furnished any service employees employed by the Bonneville prime contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Bonneville prime contractor shall report such fact to the CO, together with full information as to the application and accrual of such wages and fringe benefits, including

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any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance on the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance, such agreements shall be reported promptly after negotiation thereof.

- (n) Seniority Lists. Not less than ten days prior to completion of any contract being performed at a Bonneville facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor (29 CFR Part 4.173), the incumbent prime contractor shall furnish to the CO a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor contractors of each such service employee. The CO shall provide this list to the successor contractor at the commencement of the succeeding contract.
- (o) Rulings and interpretations. Rulings and interpretations of the Act are contained in 29 CFR Part 4.
- (p) Contractor's certification
 - (1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.
 - (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.
 - (3) The penalty for making false statements is prescribed in the U.S. Criminal Code. 18 U.S.C. 1001.
- (q) Variations, tolerances and exemptions involving employment. Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business.
 - (1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).
 - (2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).
 - (3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.
- (r) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency recognized by the U.S. Department of Labor, or if no such recognized

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agency exists in a State, under a program registered with the Office of Apprenticeship Training, Employer, and Labor Services (OATELS) U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

- (s) Tips. An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and regulations, 29 CFR Part 531. However, the amount of the credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision—
 - (1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;
 - (2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);
 - (3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and
 - (4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.
- (t) Disputes concerning labor standards. The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes concerning labor standards requirements within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U. S. Department of Labor, or the employees or their representatives.

SERVICE CONTRACT WAGE DETERMINATION (10-5) (OCT 2014) (10.2.2.3(b))

The wage determination(s) referred to in the clause 10-3, Service Contract Labor Standards, are incorporated into the contract, and are identified as follows:

See Attachment F3

CONTRACTOR SUPPLY CHAIN SECURITY CONTROLS (15-19) (OCT 2020)(15.11)

- (a) The Contractor shall notify Bonneville in the event of and coordinate responses to Contractor-identified cyber security incidents related to the products or services provided to Bonneville that pose cyber security risk to Bonneville. Examples of such incidents could be, but are not limited to, disclosure of proprietary code repositories, private digital certificates, proprietary or personally-identifiable information (PII) of Bonneville, its employees, contractors, or partners, or compromise of Contractor user credentials related to products or services provided to Bonneville.
- (b) The Contractor shall provide information to Bonneville of known security vulnerabilities related to their products or services in accordance with NERC CIP-013 R1.2.4. This information shall include a method of disclosing known vulnerabilities, both past and present, with a clear explanation of how these vulnerabilities are currently addressed, and a method Bonneville may use for obtaining security vulnerability fixes, patches,

ATTACHMENT F2

and configuration or mitigation activities. The information provided should be brief, yet comprehensively outline the Contractor's capability to address any security vulnerabilities. If no known vulnerabilities exist, this should be clearly stated as such along with the Contractor's intended process or mechanism to support Bonneville's ability to address any such security vulnerabilities that may be discovered in future.

- (c) The Contractor shall ensure the integrity and authenticity (in accordance with NERC CIP-013 R1.2.5) of all software/firmware products, versions, and patches Bonneville may purchase from the Contractor.
- (d) The Contractor shall comply with Bonneville policy Managing Access and Access Revocation for NERC CIP Compliance (430-2).
- (e) The Contractor shall include this clause in all subcontracts.

MINIMUM INSURANCE COVERAGE (16-8) (FEB 2020) (16.4.8.2)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract. The Contracting Officer shall check all that apply and insert amounts as they pertain to each individual contract.

- (a) Workers' compensation and employer's liability. Worker's compensation and employer's liability insurance as required by applicable Federal and State workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical to require this coverage. The employer's liability coverage shall be at least \$1,000,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Commercial general liability. Comprehensive general (bodily injury) liability insurance of at least \$1,000,000 per occurrence.
- (c) & Automobile liability. Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$2,000,000 per occurrence. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- (d)

ATTACHMENT F2

in favor of Bonneville. Where allowable, Contractor's insurance will name Bonneville and its agents, officers, directors and employees as additional insured's.

KEY PERSONNEL (23-2) (SEP 1998) (23.1.7(b))

The personnel listed below are considered to be essential to the work being performed hereunder. No diversion shall be made by the Contractor without the written consent of the Contracting Officer.

To be negotiated and incorporated at time of award

ADDITIONAL REQUIREMENTS

FEDERAL BIO-BASED PURCHASING REQUIREMENTS

The Contractor shall utilize bio-based products wherever possible in accordance with federal bio-based purchasing requirements per the USDA Bio-Preferred Catalog and provide Safety Data Sheets (SDS) for BPA approval. The Contractor will provide a report of its purchases to the COR within 30 days after the end of each BPA Fiscal Year and upon contract expiration. BPA's fiscal year runs October 1 to September 30.

LIMITATION ON TRAVEL COSTS

- (a) Costs incurred for lodging, meals, and incidental expenses shall be reimbursed on an actual cost basis to the extent that they do not exceed, on a daily basis, the per diem rates in effect at the time of travel as set forth in the Federal Travel Regulation, prescribed by the General Services Administration, for travel in the conterminous 48 United States. Per Diem shall be authorized for travel in excess of 12 hours and shall not exceed 75% of the daily rate for the first and last day of official travel. Lodging and other expenses exceeding \$75.00 must be supported with receipts, which shall be submitted with the request for payment.
- (b) Airline costs will be reimbursed on an actual cost basis to the extent determined reasonable and allocable under the Bonneville Purchasing Instructions, Appendix 13, "Contract Cost Principles for Commercial Organizations". Generally, airline costs will be limited to coach or economy class. Any variation from these requirements must be approved by the Contracting Officer. Contractors may request a letter from the Contracting Officer, authorizing access to an airline, lodging, or other rates negotiated for government travel to the extent such authorization is honored by the service providers.
- (c) Per Diem rates are available at: <https://www.gsa.gov/policy-regulations/regulations/federal-travel-regulation/federal-travel-regulation-and-related-files>

SAFETY VERIFICATION SUBSCRIPTION

- (a) The Contractor agrees to maintain, a subscription with Bonneville's third party safety verification provider for the duration of this Contract. For subscription information, please visit <http://www.bpa.gov/Doing%20Business/Pages/Contractor-Safety.aspx>. The information requested will assist Bonneville in evaluation of the health, safety and environmental performance of the Contractor.
- (b) A minimum safety rating of "C" is required for performing the services requested in this contract. Depending on the size of this contract action and other scope-specific factors, contractors with a rating of "C" may be required by Bonneville to provide safety risk mitigation at no cost. This mitigation may include a requirement to have a full time safety professional at the contract location during the performance of the work.
- (c) In the event that the Contractor's safety rating falls below a "C" rating, Contractor shall promptly take all steps necessary to improve the rating to maintain a rating of "C" or better during the performance of the Contract.

ATTACHMENT F2

If the Contractor does not improve such rating within 30 days after the issuance of the rating, Contractor shall be considered to have an unacceptable safety performance rating and the Contracting Officer shall determine the course of action, up to and including contract termination.

- (d) Bonneville makes no representation about the quality of services being performed by the third party safety verification provider. The use of information obtained from the third party safety verification provider in connection with this contract shall not constitute, nor be construed as, an assumption of responsibility or liability for safety under the Contract by Bonneville. Use of information obtained by Bonneville does not relieve Contractor from its legal and contractual obligations. The third party safety verification provider is an independent contractor and is not an agent of Bonneville. Any acts or omissions by the third party safety verification provider shall not be considered an act or omission of Bonneville.

assist a family member (or person who is like family to the employee) who is ill injured or has other health-related needs including preventive care; or for reasons resulting from or to assist a family member (or person who is like family to the employee) who is the victim of domestic violence sexual assault or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.54 per hour up to 40 hours per week or \$181.60 per week or \$786.93 per month

HEALTH & WELFARE EO 13706: \$4.22 per hour up to 40 hours per week or \$168.80 per week or \$731.47 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706 Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; and 3 weeks after 10 years. Length of service includes the whole span of continuous service with the present contractor or successor wherever employed and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day Martin Luther King Jr.'s Birthday Washington's Birthday Memorial Day Independence Day Labor Day Columbus Day Veterans' Day Thanksgiving Day and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract by the employer by the state or local law etc.) the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition where uniform cleaning and maintenance is made

the responsibility of the employee all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount or the furnishing of contrary affirmative proof as to the actual cost) reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However in those instances where the uniforms furnished are made of "wash and wear" materials may be routinely washed and dried with other personal garments and do not require any special treatment such as dry cleaning daily washing or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract by the contractor by law or by the nature of the work there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations" Fifth Edition (Revision 1) dated September 2015 unless otherwise indicated.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE

Standard Form 1444 (SF-1444)

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e. the work to be performed is not performed by any classification listed in the wage determination) be classified by the contractor so as to provide a reasonable relationship (i.e. appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification wage rate and/or fringe benefits which shall be retroactive to the commencement date of the contract (See 29 CFR 4.6(b)(2)(iv)(C)(vi)). When multiple wage determinations are included in a contract a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award the contractor prepares a written report listing in order the proposed classification title(s) a Federal grade equivalency (FGE) for each proposed classification(s) job description(s) and rationale for proposed wage rate(s) including information regarding the agreement or disagreement of the

authorized representative of the employees involved or where there is no authorized representative the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action together with the agency's recommendations and pertinent information including the position of the contractor and the employees to the Wage and Hour Division U.S. Department of Labor for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt the Wage and Hour Division approves modifies or disapproves the action via transmittal to the agency contracting officer or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request the ""Service Contract Act Directory of Occupations"" (the Directory) should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember it is not the job title but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split combine or subdivide classifications listed in the wage determination."

RFQ 4977 / Jones Canyon-Santiam #1 Helicopter Tree Topping Ser

Energized Side of Transmission Line.	
0001*	Full Fly Day/Energized Side/Approximately 3,800 Trees. FFP.
0002*	Initial Mobilization/Demobilization cost. FFP.
0003*	Permit and Flagging Cost(if applicable). Pass-through to BPA/must be supported. T&M.
Priced Option(s).	
De-Energized Side of Transmission Line.	
1001a*	Full Fly Day/De-energized Side(Area 3)/Approximately 1,200 Trees. FFP.
1001b*	Hourly ProRate if less than full day flown. Firm Fixed Unit Price.
1003c*	Mobilization/Demobilization cost. Firm Fixed Unit Price.

*** NOTES ***

Line Item 0001-

Quantity - Please enter the amount of total days to cut 3,800 trees on the energized side of the trans
 If the amount of days increases or decreases BPA may make an equitable adjustment.
 Unit Price - Please enter the total unit price for a full day fly time/work.

Line Item 0002-

It is assumed that the aircraft will not return each night to the home office and will remain at the lc
 or until the project requiremetns change.

Line Item 0003-

BPA understands that the flagging and permit costs may change depending on the project requirem
 entered \$3,000.00 as a base line. Please do not change this amount. This amount will be reconcile
 These costs are pass-through to BPA and must be supported at the time of invoice.

Line Item 1001a-

Quantity - Please enter the amount of total days to cut approximately 1,200 trees on the de-energize
 If amount of days increases or decreases BPA may make an equitable adjustment.
 Unit Price - Please enter the total unit price for a full day fly time/work.

Line Item 1001b-

Quantity - Please enter a per hour rate for fly/work time. If the operation is grounded for reasons
 (forest fire / BPA requested / weather, etc..), BPA will pay for the hours spent in the air working

Line Item 1001c-

If requirements mandate that the an area be placed on hold and the contractor is requested to retu
 Mob/Demob cost would apply.

Services / Schedule of Prices.

Quantity	Unit	Unit Price	Amount
	Day		
1	Lump Sum		
1	Lump Sum		\$3,000.00
Total:			\$3,000.00

Quantity	Unit	Unit Price	Amount
	Day		
1	Hour		
1	Lump Sum		
Total:			TBD

mission line.

ocal landing area the duration of the project

ents and to keep a level bidding field, BPA has
d with actuals at the end of the project.

ed side of the transmissin line.

beyond the control of the contractor
on the project if less than a full day.

rn at a later date to finish the work, this

King,James J (CONTR) - CGI-7

From: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2
Sent: Monday, May 10, 2021 1:49 PM
To: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2
Subject: RE: Bonneville Power Administration RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation Package 05/10/2021.
Attachments: RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation Package..pdf

Contractors,

It appears that the F5 attachment did not make it into the prior portfolio package. Please use this attachment as it contains the F5 attachment.

Please let me know if you have any issues or questions.

Thank you.

Terry Allen Holtcamp / NSSV.
Contracting Officer / Construction Acquisition Services.
PO Box 61409 Vancouver, WA 98666.
4400 NE 77th Ave, 2nd Floor, Vancouver, WA 98662.
BONNEVILLE POWER ADMINISTRATION
www.bpa.gov 360-619-6440 [o] (b) (6) 360.619.6958 [f]

From: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2
Sent: Thursday, May 6, 2021 12:36 PM
To: Holtcamp Jr,Terry A (BPA) - NSSV-4400-2 <taholtcamp@bpa.gov>
Subject: Bonneville Power Administration RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation Package.

Contractors,

BPA is issuing RFQ 4977 JONES CANYON-SANTIAM CORRIDOR HELI SAW Solicitation package for your review and consideration in providing a bid. Because of email data limitation, this RFQ is published in two parts. The first part is the Contractual portion and is attached. It contains the contract terms and conditions/provisions and Statement of work. The second part is the technical portion which contains the maps, KMZ files, and the Contractor Safety and Health Requirements For Prime and Subcontractors(CSHRPS) and can be accessed by clicking this link (<https://drive.max.gov/share/e7549261033d42dc>) and entering the password- RFQ 4977. Please download these documents and use for the solicitation and potential award. If contractor is not awarded the contract, please delete these files.

Please know that your proposal will contain two separate parts:

1. Part one will be the Business/Pricing Proposal(see page 4 of F5) which will contain:
 - a. Completed and signed Form 4220.55 (Section A of the RFP/RFQ)
 - b. Completed Provisions 4-1, 4-3, 8-1, 9-1 and 11-1 of Section F, Attachment 5 of the RFP/RFQ.
 - c. The offeror's price proposal shall consist of a completed Schedule of Items as it appears in Section B of the RFP/RFQ. Offeror shall copy, complete and submit the Schedule as its pricing submission under this Business Proposal requirement.

- d. The offeror's price proposal shall also address the following areas and include the documents below:
Section F4 Schedule of Prices.

2. Part two will be the Technical/Management (Non-Price/Cost)(see page 4 of F5); part which will contain the responses to the evaluation factors:
 - a. Work Plan,
 - b. Key Personnel,
 - c. Past Performance/Experience,
 - d. and Equipment).

BPA will review the technical management/evaluation factors responses and give each factor a pass or no pass. If the proposal responses contain the minimum criteria required for each factor, the proposal will receive a pass and then BPA will review the business/pricing part. If all proposals receive an overall pass(technically acceptable), then the lowest priced submission will be considered for award.

We understand that these solicitation/proposal requirements may be new and I am here to work with you if, after review, you need further assistance.

Significant Dates:

- RFQ questions need to be submitted to me by 05/14/2021.
- BPA responses will be delivered 05/17/2021.
 - If significant questions remain after receipt of BPA responses to the questions, please let me know and BPA may elect to have a pre-proposal conference.
- Bids are due 05/19/2021.
- Start work early 06/2021

Thank you for your consideration in providing a bid.

Sincerely,

Terry Allen Holtcamp / NSSV.
Contracting Officer / Construction Acquisition Services.
PO Box 61409 Vancouver, WA 98666.
4400 NE 77th Ave, 2nd Floor, Vancouver, WA 98662.
BONNEVILLE POWER ADMINISTRATION
www.bpa.gov 360-619-6440 [o] (b) (6) [c] 360.619.6958 [f]

**U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION
SOLICITATION AND AWARD FOR CONSTRUCTION**

PAPERWORK REDUCTION ACT BURDEN DISCLOSURE STATEMENT

This data is used to solicit requests for quote or proposal for a construction contract. This form will assist in ensuring all required supplier contractual elements have been considered and reviewed. Public reporting burden for this collection of information is estimated to average 30 minutes per response, including the time for reviewing instructions, searching for existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send any comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Office of the Chief Information Officer, Enterprise Policy Development & Implementation Office, IM-22, Paperwork Reduction Program (OMB), US Department of Energy, 1000 Independence Ave, SW, Washington, DC 20585-1290; and to the Office of Management & Budget (OMB), OIRA, Paperwork Reduction Project (OMB), Washington, DC 20503.

SOLICITATION

1. Solicitation Number: BPA- - -	2. Project Name (if applicable): 	3. Date Solicitation Issued:
4. Contract Number: BPA- - -	5. Requisition/Purchase Request Number (used for COOP event only): 	6. Proposal/Quote Due Date/ Time (Pacific): <div style="text-align: right;">AM PM</div>

7. Proposals/Quotes are due electronically or hard copy Address:

FOR INFORMATION CONTACT: ►	8a. Name of Contract Specialist: 	8b. Phone and Email: <div style="text-align: center; color: red; font-weight: bold;">(b) (6)</div>
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9. Pre-Bid Conference and/or Site Tour Info:

10. Contract Magnitude:

11. Brief Description of Work Required:

12a. The Contractor shall begin performance within calendar days of receiving award or notice to proceed. 12b. Performance shall be completed by . The performance period is negotiable non-negotiable.	13b. Calendar Days:
13a. The Contractor must furnish any required performance and payment bonds? (If "YES", indicate within how many calendar days after award the bonds will be provided.) <input type="checkbox"/> YES <input type="checkbox"/> NO	

OFFEROR (To Be Completed By Offeror)

14. Name, Phone, E-mail and Address of Offeror:

15. Acknowledgement of Amendments (The offeror acknowledges receipt of amendments to the solicitation.)							
15a. Amendment Number:							
15b. Date:							

Note: All Proposals/Quotes are subject to the work requirements, as well as other provisions and clauses incorporated in this solicitation whether in full text or by reference.

U.S. DEPARTMENT OF ENERGY
BONNEVILLE POWER ADMINISTRATION
SOLICITATION AND AWARD FOR CONSTRUCTION

AWARD *(To Be Completed At Award)*

16. Amount:	17. Effective Date:	18. Accounting and Appropriation Data <i>(used for COOP event only)</i> :
-------------	---------------------	---

Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by this (i) contract award, (ii) the solicitation, and the (iii) items incorporated by reference, such as clauses, representations, certifications, references and specifications.

19a. Name and Title of Contractor or Person Authorized to sign:	20a. Contracting Officer:
---	---------------------------

19b. Signature	19c. Date:	20b. Contracting Officer Signature	20c. Date:
By: _____ <i>(Signature of person authorized to sign)</i>		By: _____ <i>(Signature of Contracting Officer)</i>	

B. SCHEDULE OF ITEMS/CONTINUATION PAGE

Line Item	Description.	Quantity	Unit	Unit Price	Amount
0001	Full Fly Day/Energized Side / Approx 2,800 Trees. Firm Fixed Price.		Day		
0002	Initial Mobilization/Demobilization cost. Firm Fixed Price.	1	Lump Sum		
0003	Permit and Flagging Cost. Pass through to BPA and must be supported at time of invoicing. Time and Materials. Baseline of \$3,000 entered by BPA(do not change and please see notes in the Schedule of Prices / Line Item 0003).	1	Lump Sum		\$3,000.00
1001a-c.	Optional Work as approved by BPA / See Schedule of Prices Line Items 1001a-1001c. This amount will change when BPA approves options	1	Lump Sum		TBD
				Total:	\$3,000.00

C. SUBMISSION OF INVOICES & CONTACT INFORMATION

1. Invoices should be sent electronically to:

Jennifer Stombom at jlknoellinger@bpa.gov.

2. Payment Terms:

NET 30.

3. Bonneville Contact Information:

Bonneville Office:
Attention:
Contact Email:

TFBV
Jennifer Strombom,
jlknoellinger@bpa.gov

4. Contractor Contact Information:

Company Name:
Attention:
Contact Email:

--

D. DELIVERY INFORMATION

Line Item No.	Period of Performance/ Delivery Date	Quantity	Unit	Delivery Terms	Ship To Address or Place of Performance
0001-0003	2/28/2022	1.00	Job	Block 11	See SOW
1001a-c	2/28/2021	1.00	job	Block 11	See SOW
				n/a	
				n/a	
				n/a	

Special Delivery Instructions:

BPA reserves the right to adjust the performance periods of the identified areas as required by the project needs. If fire or environmental concerns arise, BPA may choose to assign the contractor to a different area.

E. INSPECTION AND ACCEPTANCE TERMS

All line item(s) in Section B will be inspected and accepted by the COR at the address specified in Section C unless otherwise stated in the table below.

Line Item No.	Inspection At/Inspection By		Acceptance At/Acceptance By		Additional Info
0001-0003	Government	Government	Government	Government	
1001a-c	Government	Government	Government	Government	

F. ATTACHMENTS

	Description
F1	SOW included in solicitation emial package. Other Technical Specifications will be uploaded to www.drive.max.gov : https://drive.max.gov/share/e7549261033d42dc 1) FINAL CSHRPS-V21-2-06OCT2020 2) Heli-LZ_Locations-Pics 3) JCSB_SANT_1_Beachie_Fall_Into_1_of_3 4) JCSB_SANT_1_Beachie_Fall_Into_2_of_3 5) JCSB_SANT_1_Beachie_Fall_Into_3_of_3 6) RFQ 4977 Map and Timing
F2	Contract Clauses.
F3	Wage Determinations - Oregon State Wide for (Linn County OR & Marrion Conty OR). SCA Wage Number 1977-0079 Rev 04 03/15/2021.
F4	Schedule of Prices.
F5	Solicitation Provisions.

STATEMENT OF WORK.

HELI-SAW TREE REMOVAL JONES CANYON-SANTIAM CORRIDOR.

Part A: General

A.1 Objective

The objective of this contract is to obtain commercial aviation services (helicopter with pilot(s)), fuel support truck, and ground support equipment and personnel for tree cutting services to remove Danger Trees that pose a threat to BPA transmission lines and structures within the Jones Canyon-Santiam corridor from approx. 120 mile to 138 mile. The contractor will use the LiDAR generated Danger Tree Fall Into Analysis to locate the trees from the air that can come within striking distance of the transmission conductors and top them to a height that would eliminate the threat of an outage (MVCD +5ft = 8ft). There may also be localized tree removals on the de-energized side of the corridor to protect infrastructure.

A.2 Background

The Beachie Creek fire has burned 188,374 acres, including approximately 35 miles of the Jones Canyon-Santiam corridor. The following lines were impacted by the Beachie Creek fire; Jones Canyon-Santiam 230kV, McNary-Santiam (de-energized), and Detroit-Santiam 230kV. The McNary-Santiam runs along the corridor and has been de-energized for over 30 years. The LiDAR analysis completed for this corridor depicts trees identified by current line rating and clearance requirements per BPA regulations.

The trees in this area are dead due to the wildfire and are located on steep terrain in remote areas in and around Detroit Lake, OR. Given this steep terrain and risk to personnel on the ground, Helicopter Operations in this area will be the safest means of obtaining system reliability. The land ownership where the fire created these Danger Trees that BPA needs to mitigate is mostly USFS but also contains state, tribal and private timberlands.

A.3 Location

This project is located between structure 121/1 in T9S, R6E, Section 29 and structure 137/7, in T9S, R4E, Section 29 in Linn County, Oregon.

Helicopter Area – USFS

XREF: Line Name	Analysis Area	Section	Approx. Tree Count
JCSB-SANT-1: 230kV (Area 3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1	328
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	1/1 to 5/2	718
JCSB-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	131/1 to 135/2	1,082
JCSB-SANT-1: 230kV (Area 2, Work can start after July 15 th)	HeliSaw Ops Area	128/1 to 131/1	816
DETR-SANT-1: 230kV (Area 1, Work can start in June)	HeliSaw Ops Area	5/3 to 6/6	36
JCSB-SANT-1:230kV (Area 1, Work can start in June)	HeliSaw Ops Area	136/2 to 137/6	79
<u>Optional</u> : JCSB-SANT-1: 230kV De-energized side of corridor (Area 2/3, Work can start in June)	HeliSaw Ops Area	121/1 to 123/1, 128-131/1	800

TOTAL	3,859
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A.4 BPA-Furnished Property and Services

BPA shall furnish the following:

1. Maps (KMZ or another geospatial format)
2. BPA safety guidelines and requirements

A.5 Contractor Furnished Items

The Contractor shall furnish the following:

1. Aircraft, pilot, and fuel.
2. GPS device capable of locating project area and the trees selected to be cut.
3. All equipment, tools, transportation and labor required for the successful execution of this contract, according to the specifications, provisions and attachments contained herein.
4. Personnel Protective Equipment.
5. Safety Plan Accepted by BPA Safety Organization: To include all information from OAP, JHA, and other relevant flight or safety information can be stored in the SP.
6. Ground man with direct communication with pilot.
7. Any required ODOT or Transportation permits to operate adjacent to the Highway 22

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Part B: Technical Approach/Tasks

B.1 General Requirements

The Contractor shall perform the Vegetation Management tasks as described in this contract by removing the section(s) of the tree that eliminates the trees ability of coming within MVCD + 5ft (i.e. 8ft) of the conductor from the Jones Canyon-Santiam No.1 and Detroit-Santiam No.1 lines. This shall be accomplished with helicopter mounted equipment that contains a grapple and saw combination resulting in the controlled removal of the tree section(s).

B.2 Technical

1. The contractor shall complete all work in phases identified in the maps attached within the exhibits. The maps (KMZ and/or shapefile) have been analyzed to include all trees that have the ability of coming within MVCD + 5ft of the conductor if they fell.
2. The contractor shall locate the trees with the aid of map and guidance from BPA personnel.
3. The contractors helicopter mounted tree topping equipment will be reviewed and accepted by BPA.
4. The contractor shall top all trees identified to heights that cannot violate the following clearance requirements: 8 feet (MVCD + 5ft) of clearance for 230kV transmission lines. These tree locations have been identified and will be provided in a Danger Tree Fall-Into Analysis.
5. Primary Landing zone will be located at 44.72733 N, 122.5656 W on public land and an alternate in the parking lot on US Army Corps of Engineers (USACE) property below the Detroit Dam at Lat. 44.72733 N, Long. 122.25656 W (Contractor shall coordinate with BPA and USACE personnel as appropriate to gain access to the secondary landing site / there will be an optional secured work site (behind the fence) area at Lat 44.72368 N, Long. 122.25279 W for equipment, including helicopter for overnight storage / site may be allowed for overnight storage of RV/trailers.
6. Minimum Fly Time (based on daily rate): A full day of fly time will be identified per CSHRPS, Chapter 4 Section 6. When the maximum hours can't be reached for the day, an hourly rate would be applied based on the pro-rated scale from the daily rate. This would be applicable for uncontrollable stoppages, weather, or BPA enforced.
7. Tree Count/Day: It is anticipated that 300-450 trees will be topped given a full fly day per CSHRPS, Chapter 4 Section 6.
8. If modifications are required, they shall be approved by the Contracting Officer or Contracting Officer's Representative (COR) prior to implementation.

B.3 Environmental Protection

1. The Contractor shall follow all weather restriction requirements. Operations are not allowed during periods of excessive moisture, wind, or during periods of low visibility (darkness or fog). The Contractor is responsible for making adjustments to schedules to assure compliance is maintained.
2. The Contractor shall avoid depositing vegetation debris in areas marked on the ground, outlined on maps and geospatially identified. (i.e. roads, trails, waterways, trails, etc.)

F1 – Statement of Work

3. The contractor shall follow any restrictions and/or mitigations listed within the environmental review document (i.e. Categorical Exclusion, Environmental Analysis or Supplemental Analysis)

B.4 Notifications and Record-Keeping

1. The Contractor shall submit flight plans and abide by all other FHA requirements.
2. The Contractor shall operate in accordance with BPA Flight Services requirements by coordinating with the BPA Flight Services office within two business days following the awarding of this contract.

B.5 Safety and Property Protection

1. The Contractor shall be ISNetworld certified with a B or better rating.
2. The Contractor shall follow the work procedures provided in the *Contractor Safety and Health Requirements For Prime and Subcontractors*.
3. The full text of the *Contractor Safety and Health Requirements for Prime and Subcontractors* is available at <http://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>
4. The Contractor shall follow all state and federal laws.
5. After award, the Contractor shall be required to submit for acceptance:
 - a. Aviation Job Hazard Analysis (JHA) approved by BPA Flight Services.
 - b. Site Specific Safety Plan approved by BPA Safety department.
 - c. Daily safety job briefing will be conducted in accordance with the Contractor's JHA and BPA's Accident Prevention Manual J-1 job briefing protocol.
6. The Contractor shall furnish all safety equipment required by BPA, federal and state regulatory agencies for both flight operations and ground tree cutting operations.
7. All transmission lines will be energized during the helicopter tree topping operation. MAD shall not be violated by equipment and/or vegetation.

5.6 Deliverables

The Contractor shall use the aerial tree cutting devices to top identified trees along the Jones Canyon-Santiam corridor and without damaging BPA transmission structures/hardware. Once removed, the cut tree sections shall be removed in such a way that they are not allowed to fall onto, strike, or slide into BPA transmission lines or structures. In addition, removed tree pieces shall not be allowed to fall onto and block BPA access/ROW roads or US Forest Service roads and/or trails unless approved by Contracting Officer's Representative (COR). The contractor is not responsible for removing the cut tree trunk and root ball, debris, however, debris shall be piled such that it does not exceed 6 feet above ground. The remaining tree can be left in place. BPA reserves the right to deviate work areas due to fire restrictions, environmental concerns and other timing issues and risks identified within the work areas. This includes but is not limited to conducting work on the de-energized side of the corridor.

5.7 Performance Period

BPA's primary objective is to conduct work on the energized side of the corridor in areas 1 and 3 in June and then the energized side of area 2 after July 15th. In the event that BPA determines that the risk of waiting until July 15 to start area 2 would conflict with Industrial Fire Precaution Levels (IFPL), BPA may approve work on the de-energized side of the corridor in areas 1 and 3 in June as well. Any remaining work will then be rescheduled after October 1st when IFPL and environmental restrictions have been lifted. When BPA notifies contractor that work can resume, contractor shall be on site and working within 15 calendar days.

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PART C – Commercial Aviation Services Requirements

Refer to the Contractor Safety and Health Requirements for Prime and Subcontractors, specifically Chapter 4, sections 1 and 6.

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CONTRACT CLAUSES INCORPORATED BY REFERENCE

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at the following link.

Bonneville Purchasing Instructions provisions and clauses:

<https://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>

- 28-1.1 Contract-Basic Terms (FEB 2020) (28.3.4(a))
- 28-3 Invoice (OCT 2014) (28.3.4(h))
- 28-4.1 Payment – Firm-Fixed-Price (FEB 2020) (28.3.4(i))
- 28-4.2 Payment – Time-and-Materials/Labor Hour (FEB 2020) (28.3.4(j))
- 28-5.1 Inspection/Acceptance – Firm-Fixed-Price (MAR 2018) (28.3.4(k))
- 28-5.2 Inspection/Acceptance – Time-and-Materials/Labor Hour (FEB 2020) (28.3.4(l))
- 28-6 Changes (JUL 2013) (28.3.4(m))
- 28-7 Stop Work Order (MAR 2018) (28.3.4(n))
- 28-8 Force Majeure/Excusable Delay (JUL 2013) (28.3.4(o))
- 28-9.1 Termination for Cause – Firm-Fixed-Price (MAR 2018) (28.3.4(p))
- 28-9.2 Termination for Cause – Time-and-Materials/Labor Hour (MAR 2018) (28.3.4(q))
- 28-10.1 Termination for Convenience – Firm-Fixed-Price (MAR 2018) (28.3.4(r))
- 28-10.2 Termination for Convenience – Time-and-Materials/Labor Hour (MAR 2018) (28.3.4(s))
- 28-11 Warranty (JUL 2013) (28.3.4(t))
- 28-12 Limitation of Liability (JUL 2013) (28.3.4(u))
- 28-13 Disputes (JUL 2013) (28.3.4(v))
- 28-14 Indemnification (MAR 2018) (28.3.4(w))
- 28-16 Title (MAR 2018) (28.3.4(z))
- 28-17 Taxes (JUL 2013) (28.3.4(aa))
- 28-18 Assignment (MAR 2018) (28.3.4(bb))
- 28-19 Other Compliances (JUL 2013) (28.3.4(cc))
- 28-20.2 Requirements Unique to Government Contracts – Services (FEB 2020) (28.3.4(dd))
- 28-21 Order of Precedence (FEB 2020) (28.3.4(ee))
- 28-22 Applicable Law (JUL 2013) (28.3.4(ff))
- 3-9 Restriction on Commercial Advertising (FEB 2020) (3.5.2)
- 4-2 Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities (FEB 2020) (4.10.3)
- 4-4 Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment (FEB 2020) (4.11.5(b))
- 7-39 Option to Extend Services (FEB 2020) (7.9.8(f))
- 10-6 Notification of Employee Rights Under the National Labor Relations Act (OCT 2014) (10.1.7.2)
- 10-22 Paid Sick Leave Under Executive Order 13706 (MAR 2018) (10.1.12.9)
- 14-2 Contract Administration Representatives (MAR 2018) (14.1.5(b))
- 14-6 Variation in Estimated Quantity – Service and Construction Contracts (MAR 2018) (14.6.3(b))
- 14-18 Bankruptcy (OCT 2005) (14.19.3)
- 14-26 Emergency Contingency Notice (FEB 2020) (14.24.2)
- 15-4 Contractor Compliance with Bonneville Policies (FEB 2020) (15.3.1.1(a))
- 15-6 Hazardous Material Identification and Material Safety Data (MAR 2018) (15.4.2)
- 15-12 Contractor Safety and Health (MAR 2018) (15.6.4.1(a))
- 15-13 Contractor Safety and Health Requirements (MAR 2018) (15.6.4.1(b))
- 15-17 Information Assurance (MAR 2018) (15.9.4)
- 16-2 Performance and Payment Bonds – Other Than Construction – *Alternate I* (FEB 2020) (16.2.4.4)
- 21-4 Release of Claims (MAR 2018) (21.3.10.1)

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CONTRACT CLAUSES INCORPORATED BY FULL TEXT

SERVICE CONTRACT LABOR STANDARDS (10-3) (MAR 2018) (10.2.2.3(a))

(a) Definitions. As used in this clause-

"Act" means the Service Contract Labor Standards statute (41 U.S.C. § 6701-6707, et seq.).

"Contractor" when used in any subcontract, shall include the subcontractor, except in the term "Bonneville Prime Contractor."

"Service employee" means any person engaged in the performance of this contract other than any person employed in a bona fide executive, administrative, or professional capacity, as these terms are defined in Part 541 of Title 29, Code of Federal Regulations, as revised. It includes all service persons regardless of any contractual relationship that may be alleged to exist between a Contractor or subcontractor and such persons.

(b) Applicability. This contract is subject to the following provisions and to all other applicable provisions of the Act and regulations of the Secretary of Labor (29 CFR Part 4). This clause does not apply to contracts or subcontracts administratively exempted by the Secretary of Labor or exempted by 41 U.S.C. 6702, as interpreted in Subpart C of 29 CFR Part 4.

(c) Compensation.

(1) Each service employee employed in the performance of this contract by the Contractor or any subcontractor shall be paid not less than the minimum monetary wages and shall be furnished fringe benefits in accordance with the wages and fringe benefits determined by the Secretary of Labor, or authorized representative, as specified in any wage determination attached to this contract.

(2)

(i) If a wage determination is attached to this contract, the Contractor shall classify any class of service employee not listed therein which is to be employed under the contract (i.e., the work to be performed is not performed by any classification listed in the wage determination) so as to provide a reasonable relationship (i.e., appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed class of employees shall be paid the monetary wages and furnished the fringe benefits which are determined pursuant to the procedures in this paragraph (c).

(ii) This conforming procedure shall be initiated by the Contractor prior to the performance of contract work by the unlisted class of employee. The Contractor shall submit Standard Form (SF) 1444, Request for Authorization of Additional Classification and Rate, to the Contracting Officer (CO) no later than 30 days after the unlisted class of employee performs any contract work. The CO shall review the proposed classification and rate and promptly submit the completed SF 1444 (which must include information regarding the agreement or disagreement of the employees' authorized representatives or the employees themselves together with the agency recommendation), and all pertinent information to the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor. The Wage and Hour Division will approve, modify, or disapprove the action or render a final determination in the event of disagreement within 30 days of receipt or will notify the CO within 30 days of receipt that additional time is necessary.

(iii) The final determination of the conformance action by the Wage and Hour Division shall be transmitted to the Contracting Officer who shall promptly notify the Contractor of the action taken.

ATTACHMENT F2

Each affected employee shall be furnished by the Contractor with a written copy of such determination or it shall be posted as a part of the wage determination.

(iv) Establishing rates.

(A) The process of establishing wage and fringe benefit rates that bear a reasonable relationship to those listed in a wage determination cannot be reduced to any single formula. The approach used may vary from wage determination to wage determination, depending upon the circumstances. Standard wage and salary administration practices which rank various job classifications by pay grade pursuant to point schemes or other job factors may, for example, be relied upon. Guidance may also be obtained from the way different jobs are rated under federal pay systems (Federal Wage Board Pay System and the General Schedule) or from other wage determinations issued in the same locality. Basic to the establishment of any conformable wage rate(s) is the concept that a pay relationship should be maintained between job classifications based on the skill required and the duties performed.

(B) In the case of a contract modification, an exercise of an option or extension of an existing contract, or in any other case where a contract succeeds a contract under which the classification in question was previously conformed pursuant to paragraph (c) of this clause, a new conformed wage rate and fringe benefits may be assigned to such conformed classification by indexing (i.e., adjusting) the previous conformed rate and fringe benefits by an amount equal to the average (mean) percentage increase (or decrease, where appropriate) between the wages and fringe benefits specified for all classifications to be used on the contract which are listed in the current wage determination, and those specified for the corresponding classifications in the previously applicable wage determination. Where conforming actions are accomplished in accordance with this paragraph prior to the performance of contract work by the unlisted class of employees, the Contractor shall advise the CO of the action taken, but the other procedures in paragraph (c)(2)(ii) of this section need not be followed.

(C) No employee engaged in performing work on this contract shall in any event be paid less than the currently applicable minimum wage specified under section 6(a)(1) of the Fair Labor Standards Act of 1938, as amended.

(v) The wage rate and fringe benefits finally determined under this subparagraph (c)(2) of this clause shall be paid to all employees performing in the classification from the first day on which contract work is performed by them in the classification. Failure to pay the unlisted employees the compensation agreed upon by the interested parties and/or finally determined by the Wage and Hour Division retroactive to the date such class of employees commenced contract work shall be a violation of the Act and this contract.

(vi) Upon discovery of failure to comply with subparagraph (c)(2) of this clause, the Wage and Hour Division shall make a final determination of conformed classification, wage rate, and/or fringe benefits, which shall be retroactive to the date such class or classes of employees commenced contract work.

(3) Adjustment of compensation. If the term of this contract is more than one year, the minimum monetary wages and fringe benefits required to be paid or furnished thereunder to service employees under this contract shall be subject to adjustment after one year and not less often than once every two years, under wage determinations issued by the Wage and Hour Division.

(d) Obligation to furnish fringe benefits. The Contractor or subcontractor may discharge the obligation to furnish fringe benefits specified in the attachment or determined under subparagraph (c)(2) of this clause by furnishing equivalent combinations of bona fide fringe benefits, or by making equivalent or differential cash payments only in accordance with Subpart D of 29 CFR Part 4.

ATTACHMENT F2

- (e) Minimum wage. In the absence of a wage determination for this contract, neither the Contractor nor any subcontractor under this contract shall pay any person performing work under this contract (regardless of whether the person is a service employee) less than the minimum wage specified by section 6(a)(1) of the Fair Labor Standards Act of 1938. Nothing in this clause shall relieve the Contractor or any subcontractor of any other obligation under law or contract for the payment of a higher wage to any employee.
- (f) Successor contracts. If this contract succeeds a contract subject to the Act under which substantially the same services were furnished in the same locality, and service employees were paid wages and fringe benefits provided for in a collective bargaining agreement, in the absence of the wage determination for this contract setting forth such collectively bargained wage rates and fringe benefits, neither the Contractor nor any subcontractor under this contract shall pay any service employee performing any of the contract work (regardless of whether or not such employee was employed under the predecessor contract), less than the wages and fringe benefits provided for in such collective bargaining agreements, to which such employee would have been entitled if employed under the predecessor contract, including accrued wages and fringe benefits and any prospective increases in wages and fringe benefits provided for under such agreement. No contractor or subcontractor under this contract may be relieved of the foregoing obligation unless the limitations of 29 CFR Part 4.1b(b) apply or unless the Secretary of Labor or the Secretary's authorized representative finds, after a hearing as provided in 29 CFR Part 4.10, that the wages and/or fringe benefits provided for in such agreement are substantially at variance with those which prevail for services of a character similar in the locality, or determines, as provided in 29 CFR Part 4.11, that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations. Where it is found in accordance with the review procedures provided in 29 CFR 4.10 and/or 4.11 and Parts 6 and 8 that some or all of the wages and/or fringe benefits contained in a predecessor Contractor's collective bargaining agreement are substantially at variance with those which prevail for similar services in the locality, and/or that the collective bargaining agreement applicable to service employees employed under the predecessor contract was not entered into as a result of arm's-length negotiations, the Department will issue a new or revised wage determination setting forth the applicable wage rates and fringe benefits. Such determination shall be made part of the contract or subcontract, in accordance with the decision of the Administrator, the Administrative Law Judge, or the Administrative Review Board, as the case may be, irrespective of whether such issuance occurs prior to or after the award of a contract or subcontract (53 Comp. Gen. 401 (1973)). In the case of a wage determination issued solely as a result of a finding of substantial variance, such determination shall be effective as of the date of the final administrative decision.
- (g) Notification to employees. The Contractor and any subcontractor under this contract shall notify each service employee commencing work on this contract of the minimum monetary wage and any fringe benefits required to be paid pursuant to this contract, or shall post the wage determination attached to this contract. The poster provided by the Department of Labor (Publication WH 1313) shall be posted in a prominent and accessible place at the worksite. Failure to comply with this requirement is a violation of section 2(a)(4) of the Act and of this contract.
- (h) Safe and sanitary working conditions. The Contractor or subcontractor shall not permit any part of the services called for by this contract to be performed in buildings or surroundings or under working conditions provided by or under the control or supervision of the Contractor or subcontractor which are unsanitary, hazardous, or dangerous to the health and safety of the service employees. The Contractor or subcontractor shall comply with the safety and health standards applied under 29 CFR Part 1925.
- (i) Records.
- (1) The Contractor and each subcontractor performing work subject to the Act shall make and maintain for three years from the completion of the work, and make them available for inspection and transcription by authorized representatives of the Wage and Hour Division, Employment Standards Administration, a record of the following:

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- (i) For each employee subject to the Act:
 - (A) Name, address and social security number;
 - (B) Correct work classification or classifications, rate or rates of monetary wages paid and fringe benefits provided, rate or rates of payment in lieu of fringe benefits and total daily and weekly compensation;
 - (C) Daily and weekly hours worked by each employee; and
 - (D) Any deductions, rebates, or refunds from the total daily or weekly compensation of each employee.
- (ii) For those classes of service employees not included in any wage determination attached to this contract, wage rates or fringe benefits determined by the interested parties or by the Administrator or authorized representative under the terms of paragraph (iii) of this clause. A copy of the report required by subdivision (c)(2)(iv)(B) of this clause will fulfill this requirement.
- (iii) Any list of the predecessor Contractor's employees which had been furnished to the Contractor as prescribed by paragraph (n) of this clause.
- (2) The Contractor shall also make available a copy of this contract for inspection or transcription by authorized representatives of the Wage and Hour Division.
- (3) Failure to make and maintain or to make available these records for inspection and transcription shall be a violation of the regulations and this contract, and in the case of failure to produce these records, the CO, upon direction of the Department of Labor and notification of the Contractor, shall take action to cause suspension of any further payment or advance of funds until the violation ceases.
- (4) The Contractor shall permit authorized representatives of the Wage and Hour Division to conduct interviews with employees at the worksite during normal working hours.
- (j) Pay periods. The Contractor shall unconditionally pay to each employee subject to the Act all wages due free and clear and without subsequent deduction (except as otherwise provided by law or regulations, 29 CFR Part 4), rebate, or kickback on any account. These payments shall be made no later than one pay period following the end of the regular pay period in which the wages were earned or accrued. A pay period under this Act may not be of any duration longer than semi-monthly.
- (k) Withholding of payments and termination of contract. The CO shall withhold or cause to be withheld from the Bonneville prime contractor under this or any other Government contract with the prime contractor such sums as an appropriate official of the Department of Labor requests, or such sums as the CO decides may be necessary to pay underpaid employees employed by the Contractor or subcontractor. In the event of failure to pay any employees subject to the Act all or part of the wages or fringe benefits due under the Act, the CO may, after authorization or by direction of the Department of Labor and written notification to the Contractor, take action to cause suspension of any further payment or advance of funds until such violations have ceased. Additionally, any failure to comply with the requirements of this clause may be grounds for termination of the right to proceed with the contract work. In such event, the Bonneville may enter into other contracts or arrangements for completion of the work, charging the Contractor in default with any additional cost.
- (l) Subcontracts. The Contractor agrees to include this clause in all subcontracts subject to the Act.
- (m) Collective bargaining agreements applicable to service employees. If wages to be paid or fringe benefits to be furnished any service employees employed by the Bonneville prime contractor or any subcontractor under the contract are provided for in a collective bargaining agreement which is or will be effective during any period in which the contract is being performed, the Bonneville prime contractor shall report such fact to the CO, together with full information as to the application and accrual of such wages and fringe benefits, including

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any prospective increases, to service employees engaged in work on the contract, and a copy of the collective bargaining agreement. Such report shall be made upon commencing performance on the contract, in the case of collective bargaining agreements effective at such time, and in the case of such agreements or provisions or amendments thereof effective at a later time during the period of contract performance, such agreements shall be reported promptly after negotiation thereof.

- (n) Seniority Lists. Not less than ten days prior to completion of any contract being performed at a Bonneville facility where service employees may be retained in the performance of the succeeding contract and subject to a wage determination which contains vacation or other benefit provisions based upon length of service with a contractor (predecessor) or successor (29 CFR Part 4.173), the incumbent prime contractor shall furnish to the CO a certified list of the names of all service employees on the Contractor's or subcontractor's payroll during the last month of contract performance. Such list shall also contain anniversary dates of employment on the contract either with the current or predecessor contractors of each such service employee. The CO shall provide this list to the successor contractor at the commencement of the succeeding contract.
- (o) Rulings and interpretations. Rulings and interpretations of the Act are contained in 29 CFR Part 4.
- (p) Contractor's certification
 - (1) By entering into this contract, the Contractor (and officials thereof) certifies that neither it (nor he or she) nor any person or firm who has a substantial interest in Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of the sanctions imposed under section 5 of the Act.
 - (2) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract under section 5 of the Act.
 - (3) The penalty for making false statements is prescribed in the U.S. Criminal Code. 18 U.S.C. 1001.
- (q) Variations, tolerances and exemptions involving employment. Notwithstanding any of the provisions in paragraphs (b) through (o) of this clause, the following employees may be employed in accordance with the following variations, tolerances, and exemptions, which the Secretary of Labor, pursuant to section 4(b) of the Act prior to its amendment by Pub. L. 92-473, found to be necessary and proper in the public interest or to avoid serious impairment of the conduct of Government business.
 - (1) Apprentices, student-learners, and workers whose earning capacity is impaired by age, physical or mental deficiency, or injury may be employed at wages lower than the minimum wages otherwise required by section 2(a)(1) or 2(b)(1) of the Act without diminishing any fringe benefits or cash payments in lieu thereof required under section 2(a)(2) of the Act, in accordance with the conditions and procedures prescribed for the employment of apprentices, student-learners, handicapped persons, and handicapped clients of sheltered workshops under section 14 of the Fair Labor Standards Act of 1938, in the regulations issued by the Administrator (29 CFR Parts 520, 521, 524, and 525).
 - (2) The Administrator will issue certificates under the Act for the employment of apprentices, student-learners, handicapped persons, or handicapped clients of sheltered workshops not subject to the Fair Labor Standards Act of 1938, or subject to different minimum rates of pay under the two acts, authorizing appropriate rates of minimum wages (but without changing requirements concerning fringe benefits or supplementary cash payments in lieu thereof), applying procedures prescribed by the applicable regulations issued under the Fair Labor Standards Act of 1938 (29 CFR Parts 520, 521, 524, and 525).
 - (3) The Administrator will also withdraw, annul, or cancel such certificates in accordance with the regulations in 29 CFR Parts 525 and 528.
- (r) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed and individually registered in a bona fide apprenticeship program registered with a State Apprenticeship Agency recognized by the U.S. Department of Labor, or if no such recognized

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agency exists in a State, under a program registered with the Office of Apprenticeship Training, Employer, and Labor Services (OATELS) U.S. Department of Labor. Any employee who is not registered as an apprentice in an approved program shall be paid the wage rate and fringe benefits contained in the applicable wage determination for the journeyman classification of work actually performed. The wage rates paid apprentices shall not be less than the wage rate for their level of progress set forth in the registered program, expressed as the appropriate percentage of the journeyman's rate contained in the applicable wage determination. The allowable ratio of apprentices to journeymen employed on the contract work in any craft classification shall not be greater than the ratio permitted to the Contractor as to his entire work force under the registered program.

- (s) Tips. An employee engaged in an occupation in which the employee customarily and regularly receives more than \$30 a month in tips may have the amount of these tips credited by the employer against the minimum wage required by section 2(a)(1) or section 2(b)(1) of the Act, in accordance with section 3(m) of the Fair Labor Standards Act and regulations, 29 CFR Part 531. However, the amount of the credit shall not exceed \$1.34 per hour beginning January 1, 1981. To use this provision—
- (1) The employer must inform tipped employees about this tip credit allowance before the credit is utilized;
 - (2) The employees must be allowed to retain all tips (individually or through a pooling arrangement and regardless of whether the employer elects to take a credit for tips received);
 - (3) The employer must be able to show by records that the employee receives at least the applicable Service Contract Act minimum wage through the combination of direct wages and tip credit; and
 - (4) The use of such tip credit must have been permitted under any predecessor collective bargaining agreement applicable by virtue of section 4(c) of the Act.
- (t) Disputes concerning labor standards. The U.S. Department of Labor has set forth in 29 CFR Parts 4, 6, and 8 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes concerning labor standards requirements within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U. S. Department of Labor, or the employees or their representatives.

SERVICE CONTRACT WAGE DETERMINATION (10-5) (OCT 2014) (10.2.2.3(b))

The wage determination(s) referred to in the clause 10-3, Service Contract Labor Standards, are incorporated into the contract, and are identified as follows:

See Attachment F3

CONTRACTOR SUPPLY CHAIN SECURITY CONTROLS (15-19) (OCT 2020)(15.11)

- (a) The Contractor shall notify Bonneville in the event of and coordinate responses to Contractor-identified cyber security incidents related to the products or services provided to Bonneville that pose cyber security risk to Bonneville. Examples of such incidents could be, but are not limited to, disclosure of proprietary code repositories, private digital certificates, proprietary or personally-identifiable information (PII) of Bonneville, its employees, contractors, or partners, or compromise of Contractor user credentials related to products or services provided to Bonneville.
- (b) The Contractor shall provide information to Bonneville of known security vulnerabilities related to their products or services in accordance with NERC CIP-013 R1.2.4. This information shall include a method of disclosing known vulnerabilities, both past and present, with a clear explanation of how these vulnerabilities are currently addressed, and a method Bonneville may use for obtaining security vulnerability fixes, patches,

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and configuration or mitigation activities. The information provided should be brief, yet comprehensively outline the Contractor's capability to address any security vulnerabilities. If no known vulnerabilities exist, this should be clearly stated as such along with the Contractor's intended process or mechanism to support Bonneville's ability to address any such security vulnerabilities that may be discovered in future.

- (c) The Contractor shall ensure the integrity and authenticity (in accordance with NERC CIP-013 R1.2.5) of all software/firmware products, versions, and patches Bonneville may purchase from the Contractor.
- (d) The Contractor shall comply with Bonneville policy Managing Access and Access Revocation for NERC CIP Compliance (430-2).
- (e) The Contractor shall include this clause in all subcontracts.

MINIMUM INSURANCE COVERAGE (16-8) (FEB 2020) (16.4.8.2)

The Contractor shall obtain and maintain insurance coverage as follows for the performance of this contract. The Contracting Officer shall check all that apply and insert amounts as they pertain to each individual contract.

- (a) Workers' compensation and employer's liability. Worker's compensation and employer's liability insurance as required by applicable Federal and State workers' compensation and occupational disease statutes. If occupational diseases are not compensable under those statutes, they shall be covered under the employer's liability section of the insurance policy, except when contract operations are so commingled with the Contractor's commercial operations that it would not be practical to require this coverage. The employer's liability coverage shall be at least \$1,000,000, except in States with exclusive or monopolistic funds that do not permit workers' compensation to be written by private carriers.
- (b) Commercial general liability. Comprehensive general (bodily injury) liability insurance of at least \$1,000,000 per occurrence.
- (c) Automobile liability. Motor vehicle liability insurance written on the comprehensive form of policy which provides for bodily injury and property damage liability covering the operation of all motor vehicles used in connection with performing the contract. Policies covering motor vehicles operated in the United States shall provide coverage of at least \$2,000,000 per occurrence. The amount of liability coverage on other policies shall be commensurate with any legal requirements of the locality and sufficient to meet normal and customary claims.
- (d) Watercraft liability. When watercraft is used in connection with performing the work, watercraft liability insurance of at least \$1,000,000 per occurrence coverage is required.
- (e) Pollution liability. The Contractor shall provide environmental impairment liability insurance of at least \$5,000,000 per occurrence. Such insurance will include coverage for the clean-up, removal, storage, disposal, transportation and/or use of pollutants. The insurance policy shall name BPA, its officials, officers, employees and agents as additional insureds. The contractor's policy shall be primary and shall not seek any contribution from any insurance or self-insurance programs of Bonneville.
- (f) Professional liability. The Contractor shall provide professional liability insurance. Coverage shall be at least \$1,000,000 per occurrence for claims arising out of negligent acts, errors or omissions.
- (g) Medical malpractice liability. The Contractor shall maintain medical malpractice liability insurance of at least \$1,000,000 per occurrence.
- (h) The Contractor's policy shall be primary and shall not seek any contribution from any insurance or self-insurance programs of Bonneville. The Contractor's insurance certificate shall contain a waiver of subrogation

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in favor of Bonneville. Where allowable, Contractor's insurance will name Bonneville and its agents, officers, directors and employees as additional insured's.

KEY PERSONNEL (23-2) (SEP 1998) (23.1.7(b))

The personnel listed below are considered to be essential to the work being performed hereunder. No diversion shall be made by the Contractor without the written consent of the Contracting Officer.

To be negotiated and incorporated at time of award

ADDITIONAL REQUIREMENTS

FEDERAL BIO-BASED PURCHASING REQUIREMENTS

The Contractor shall utilize bio-based products wherever possible in accordance with federal bio-based purchasing requirements per the USDA Bio-Preferred Catalog and provide Safety Data Sheets (SDS) for BPA approval. The Contractor will provide a report of its purchases to the COR within 30 days after the end of each BPA Fiscal Year and upon contract expiration. BPA's fiscal year runs October 1 to September 30.

LIMITATION ON TRAVEL COSTS

- (a) Costs incurred for lodging, meals, and incidental expenses shall be reimbursed on an actual cost basis to the extent that they do not exceed, on a daily basis, the per diem rates in effect at the time of travel as set forth in the Federal Travel Regulation, prescribed by the General Services Administration, for travel in the conterminous 48 United States. Per Diem shall be authorized for travel in excess of 12 hours and shall not exceed 75% of the daily rate for the first and last day of official travel. Lodging and other expenses exceeding \$75.00 must be supported with receipts, which shall be submitted with the request for payment.
- (b) Airline costs will be reimbursed on an actual cost basis to the extent determined reasonable and allocable under the Bonneville Purchasing Instructions, Appendix 13, "Contract Cost Principles for Commercial Organizations". Generally, airline costs will be limited to coach or economy class. Any variation from these requirements must be approved by the Contracting Officer. Contractors may request a letter from the Contracting Officer, authorizing access to an airline, lodging, or other rates negotiated for government travel to the extent such authorization is honored by the service providers.
- (c) Per Diem rates are available at: <https://www.gsa.gov/policy-regulations/regulations/federal-travel-regulation/federal-travel-regulation-and-related-files>

SAFETY VERIFICATION SUBSCRIPTION

- (a) The Contractor agrees to maintain, a subscription with Bonneville's third party safety verification provider for the duration of this Contract. For subscription information, please visit <http://www.bpa.gov/Doing%20Business/Pages/Contractor-Safety.aspx>. The information requested will assist Bonneville in evaluation of the health, safety and environmental performance of the Contractor.
- (b) A minimum safety rating of "C" is required for performing the services requested in this contract. Depending on the size of this contract action and other scope-specific factors, contractors with a rating of "C" may be required by Bonneville to provide safety risk mitigation at no cost. This mitigation may include a requirement to have a full time safety professional at the contract location during the performance of the work.
- (c) In the event that the Contractor's safety rating falls below a "C" rating, Contractor shall promptly take all steps necessary to improve the rating to maintain a rating of "C" or better during the performance of the Contract.

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If the Contractor does not improve such rating within 30 days after the issuance of the rating, Contractor shall be considered to have an unacceptable safety performance rating and the Contracting Officer shall determine the course of action, up to and including contract termination.

- (d) Bonneville makes no representation about the quality of services being performed by the third party safety verification provider. The use of information obtained from the third party safety verification provider in connection with this contract shall not constitute, nor be construed as, an assumption of responsibility or liability for safety under the Contract by Bonneville. Use of information obtained by Bonneville does not relieve Contractor from its legal and contractual obligations. The third party safety verification provider is an independent contractor and is not an agent of Bonneville. Any acts or omissions by the third party safety verification provider shall not be considered an act or omission of Bonneville.

assist a family member (or person who is like family to the employee) who is ill injured or has other health-related needs including preventive care; or for reasons resulting from or to assist a family member (or person who is like family to the employee) who is the victim of domestic violence sexual assault or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

ALL OCCUPATIONS LISTED ABOVE RECEIVE THE FOLLOWING BENEFITS:

HEALTH & WELFARE: \$4.54 per hour up to 40 hours per week or \$181.60 per week or \$786.93 per month

HEALTH & WELFARE EO 13706: \$4.22 per hour up to 40 hours per week or \$168.80 per week or \$731.47 per month*

*This rate is to be used only when compensating employees for performance on an SCA-covered contract also covered by EO 13706 Establishing Paid Sick Leave for Federal Contractors. A contractor may not receive credit toward its SCA obligations for any paid sick leave provided pursuant to EO 13706.

VACATION: 2 weeks paid vacation after 1 year of service with a contractor or successor; and 3 weeks after 10 years. Length of service includes the whole span of continuous service with the present contractor or successor wherever employed and with the predecessor contractors in the performance of similar work at the same Federal facility. (Reg. 29 CFR 4.173)

HOLIDAYS: A minimum of ten paid holidays per year: New Year's Day Martin Luther King Jr.'s Birthday Washington's Birthday Memorial Day Independence Day Labor Day Columbus Day Veterans' Day Thanksgiving Day and Christmas Day. (A contractor may substitute for any of the named holidays another day off with pay in accordance with a plan communicated to the employees involved.) (See 29 CFR 4.174)

** UNIFORM ALLOWANCE **

If employees are required to wear uniforms in the performance of this contract (either by the terms of the Government contract by the employer by the state or local law etc.) the cost of furnishing such uniforms and maintaining (by laundering or dry cleaning) such uniforms is an expense that may not be borne by an employee where such cost reduces the hourly rate below that required by the wage determination. The Department of Labor will accept payment in accordance with the following standards as compliance:

The contractor or subcontractor is required to furnish all employees with an adequate number of uniforms without cost or to reimburse employees for the actual cost of the uniforms. In addition where uniform cleaning and maintenance is made

the responsibility of the employee all contractors and subcontractors subject to this wage determination shall (in the absence of a bona fide collective bargaining agreement providing for a different amount or the furnishing of contrary affirmative proof as to the actual cost) reimburse all employees for such cleaning and maintenance at a rate of \$3.35 per week (or \$.67 cents per day). However in those instances where the uniforms furnished are made of "wash and wear" materials may be routinely washed and dried with other personal garments and do not require any special treatment such as dry cleaning daily washing or commercial laundering in order to meet the cleanliness or appearance standards set by the terms of the Government contract by the contractor by law or by the nature of the work there is no requirement that employees be reimbursed for uniform maintenance costs.

** SERVICE CONTRACT ACT DIRECTORY OF OCCUPATIONS **

The duties of employees under job titles listed are those described in the "Service Contract Act Directory of Occupations" Fifth Edition (Revision 1) dated September 2015 unless otherwise indicated.

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND WAGE RATE

Standard Form 1444 (SF-1444)

Conformance Process:

The contracting officer shall require that any class of service employee which is not listed herein and which is to be employed under the contract (i.e. the work to be performed is not performed by any classification listed in the wage determination) be classified by the contractor so as to provide a reasonable relationship (i.e. appropriate level of skill comparison) between such unlisted classifications and the classifications listed in the wage determination. Such conformed classes of employees shall be paid the monetary wages and furnished the fringe benefits as are determined (See 29 CFR 4.6(b)(2)(i)). Such conforming procedures shall be initiated by the contractor prior to the performance of contract work by such unlisted class(es) of employees (See 29 CFR 4.6(b)(2)(ii)). The Wage and Hour Division shall make a final determination of conformed classification wage rate and/or fringe benefits which shall be retroactive to the commencement date of the contract (See 29 CFR 4.6(b)(2)(iv)(C)(vi)). When multiple wage determinations are included in a contract a separate SF-1444 should be prepared for each wage determination to which a class(es) is to be conformed.

The process for preparing a conformance request is as follows:

1) When preparing the bid the contractor identifies the need for a conformed occupation(s) and computes a proposed rate(s).

2) After contract award the contractor prepares a written report listing in order the proposed classification title(s) a Federal grade equivalency (FGE) for each proposed classification(s) job description(s) and rationale for proposed wage rate(s) including information regarding the agreement or disagreement of the

authorized representative of the employees involved or where there is no authorized representative the employees themselves. This report should be submitted to the contracting officer no later than 30 days after such unlisted class(es) of employees performs any contract work.

3) The contracting officer reviews the proposed action and promptly submits a report of the action together with the agency's recommendations and pertinent information including the position of the contractor and the employees to the Wage and Hour Division U.S. Department of Labor for review (See 29 CFR 4.6(b)(2)(ii)).

4) Within 30 days of receipt the Wage and Hour Division approves modifies or disapproves the action via transmittal to the agency contracting officer or notifies the contracting officer that additional time will be required to process the request.

5) The contracting officer transmits the Wage and Hour decision to the contractor.

6) The contractor informs the affected employees.

Information required by the Regulations must be submitted on SF-1444 or bond paper.

When preparing a conformance request the ""Service Contract Act Directory of Occupations"" (the Directory) should be used to compare job definitions to ensure that duties requested are not performed by a classification already listed in the wage determination. Remember it is not the job title but the required tasks that determine whether a class is included in an established wage determination. Conformances may not be used to artificially split combine or subdivide classifications listed in the wage determination."

RFQ 4977 / Jones Canyon-Santiam #1 Helicopter Tree Topping Ser

Energized Side of Transmission Line.	
0001*	Full Fly Day/Energized Side/Approximately 3,800 Trees. FFP.
0002*	Initial Mobilization/Demobilization cost. FFP.
0003*	Permit and Flagging Cost(if applicable). Pass-through to BPA/must be supported. T&M.
Priced Option(s).	
De-Energized Side of Transmission Line.	
1001a*	Full Fly Day/De-energized Side(Area 3)/Approximately 1,200 Trees. FFP.
1001b*	Hourly ProRate if less than full day flown. Firm Fixed Unit Price.
1003c*	Mobilization/Demobilization cost. Firm Fixed Unit Price.

*** NOTES ***

Line Item 0001-

Quantity - Please enter the amount of total days to cut 3,800 trees on the energized side of the trans
 If the amount of days increases or decreases BPA may make an equitable adjustment.
 Unit Price - Please enter the total unit price for a full day fly time/work.

Line Item 0002-

It is assumed that the aircraft will not return each night to the home office and will remain at the lc
 or until the project requiremetns change.

Line Item 0003-

BPA understands that the flagging and permit costs may change depending on the project requirem
 entered \$3,000.00 as a base line. Please do not change this amount. This amount will be reconcile
 These costs are pass-through to BPA and must be supported at the time of invoice.

Line Item 1001a-

Quantity - Please enter the amount of total days to cut approximately 1,200 trees on the de-energize
 If amount of days increases or decreases BPA may make an equitable adjustment.
 Unit Price - Please enter the total unit price for a full day fly time/work.

Line Item 1001b-

Quantity - Please enter a per hour rate for fly/work time. If the operation is grounded for reasons
 (forest fire / BPA requested / weather, etc..), BPA will pay for the hours spent in the air working

Line Item 1001c-

If requirements mandate that the an area be placed on hold and the contractor is requested to retur
 Mob/Demob cost would apply.

Services / Schedule of Prices.

Quantity	Unit	Unit Price	Amount
	Day		
1	Lump Sum		
1	Lump Sum		\$3,000.00
Total:			\$3,000.00

Quantity	Unit	Unit Price	Amount
	Day		
1	Hour		
1	Lump Sum		
Total:			TBD

mission line.

ocal landing area the duration of the project

ents and to keep a level bidding field, BPA has
d with actuals at the end of the project.

ed side of the transmissin line.

beyond the control of the contractor
on the project if less than a full day.

rn at a later date to finish the work, this

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SOLICITATION PROVISIONS INCORPORATED BY REFERENCE

This solicitation incorporates one or more provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a provision may be accessed electronically at the following link.

Bonneville Purchasing Instructions provisions and clauses:

<https://www.bpa.gov/Doing%20Business/purchase/Pages/default.aspx>

- 7-27 Single or Multiple Awards (MAR 2018) (7.6.6(e))
- 7-31 Time and Materials/Labor Hour Proposal Requirements (MAR 2018) (7.7.2(f))
- 7-34 Evaluation Exclusive of Options (MAR 2018) (7.9.8(a))
- 7-36 Evaluation of Options (FEB 2020) (7.9.8(c))
- 9-9 Offeror Representations and Certifications – Prohibited Foreign Transactions (MAR 2018) (9.3.2.1(b))
- 11-4.1 Innovative Approaches (MAR 2018) (11.13.5.3)
- 11-5 Inspection of Premises – *Alternate I* (MAR 2018) (11.13.8.1(a))
- 12-1 Debriefing Request (JUN 2012) (12.8.3.2)
- 17-21 Nondisclosure for RFP/RFQ (MAR 2018) (17.6.2.2.2(a))
- 21-1 Protests Against Award (MAR 2018) (21.2.11)

SOLICITATION PROVISIONS INCORPORATED BY FULL TEXT

TAXPAYER IDENTIFICATION NUMBER (4-1)

(MAR 2018) (4.5.2)

NOTE: (1) Taxpayer Identification Number (TIN) reporting does not apply to a Federal agency, a foreign government or a foreign business not engaged in business or trade or without an agent capable of receiving payment within the United States

(2) The TIN for Bonneville is 93-0334712.

All offerors, other than noted above, are required to submit its Taxpayer Identification Number requested below in order to comply with the Department of Treasury payment processing requirements of 31 U.S.C. 3332 and 7701, and the reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M and implementing regulations issued by the Internal Revenue Service. If the resulting contract is subject to those requirements, the failure or refusal by the offeror to furnish the information may result in a suspension of payment and a thirty-one (31) percent reduction of payments otherwise due under the contract.

Taxpayer Identification Number _____.

REPRESENTATION REGARDING CERTAIN TELECOMMUNICATIONS AND VIDEO SURVEILLANCE SERVICES OR EQUIPMENT (4-3)

(FEB 2020) (4.11.5(a))

- (a) Definitions. As used in this provision--Covered telecommunications equipment or services, Critical technology, and Substantial or essential component have the meanings provided in clause 4-4, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.
- (b) Prohibition. Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Contractors are not prohibited from providing--

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- (1) A service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (2) Telecommunications equipment that cannot route or redirect user data traffic or permit visibility into any user data or packets that such equipment transmits or otherwise handles.
- (c) Representation. The Offeror represents that--It will, will not provide covered telecommunications equipment or services to Bonneville in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation.
- (d) Disclosures. If the Offeror has responded affirmatively to the representation in paragraph (c) of this provision, the Offeror shall provide the following information as part of the offer--
 - (1) All covered telecommunications equipment and services offered (include brand; model number, such as original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable);
 - (2) Explanation of the proposed use of covered telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b) of this provision;
 - (3) For services, the entity providing the covered telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known); and
 - (4) For equipment, the entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

**TYPE OF CONTRACT (7-1)
(FEB 2020) (7.2.4)**

Bonneville contemplates award of a *Firm Fixed Price & Time and Materials type* contract resulting from this solicitation.

**SUPPLIER DIVERSITY PROGRAM AWARD REPRESENTATION (8-1)
(MAR 2018) (8.3.1.1(a))**

(a)

NAICS CODE	Size Standard in Millions of Dollars <u>OR</u> Size Standards in Number of Employees
115310	\$6,000,000

(b) The offeror represents that:

- (1) it is , is not a small business concern.
- (2) it is , is not a HUBZone small business concern.
- (3) it is , is not a disadvantaged small business concern (this includes Native American owned small business, 8(a) program and any other disadvantaged small business concerns).
- (4) it is , is not a women-owned small business concern.
- (5) it is , is not a economically disadvantaged women-owned small business concern.
- (6) it is , is not a veteran-owned small business concern.
- (7) it is , is not a disabled veteran-owned small business concern

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**BUY AMERICAN CERTIFICATE (9-1)
(MAR 2018) (9.1.6)**

- (a) The Offeror certifies that each end product, except the end products listed below, is a domestic end product (as defined in the clause entitled "Buy American Act - Supplies"); and that components of unknown origin have been considered to have been mined, produced, or manufactured outside the United States.

EXCLUDED END PRODUCTS AND COUNTRY OF ORIGIN

(List as necessary)

_____None_____

- (b) An Offeror who proposes to furnish domestic source end products containing components of foreign origin the cost of which exceeds 15 percent of the offered price, shall furnish in the spaces below a complete list of components of foreign origin in sufficient detail to clearly identify each.

FOREIGN COMPONENTS AND POINT OF ORIGIN

_____None_____

- (c) The Offeror represents that the total cost of the above components of foreign origin, including applicable duty and transportation costs constitutes ___ percent of the cost of all components to be incorporated in the end products being furnished. The Offeror agrees to furnish, for the exclusive use of Bonneville, such additional information as the Contracting Officer may request in order to verify the foregoing in evaluating the offer.
- (d) The Offeror agrees that no components of foreign origin, other than those listed above, will be incorporated in the end products being furnished without written approval of the Contracting Officer.
- (e) Where an Offeror fails to complete the representation of foreign content provision above, and in the absence of any previous experience with the offeror or information to the contrary, Bonneville assumes that domestic firms intend to furnish domestic end products and that foreign firms intend to furnish products of foreign origin.

**TYPE OF BUSINESS ORGANIZATION (11-1)
(SEP 2002) (11.12.3)**

The offeror, by checking the applicable box, represents that-

- (a) It operates as a corporation incorporated under the laws of the State of _____, an individual, a partnership, a nonprofit organization, or a joint venture; or
- (b) It is a local, state, federally recognized Indian tribe, or other governmental entity, (*describe* _____); or
- (c) If the offeror is a foreign entity, it operates as an individual, a partnership, a nonprofit organization, a joint venture, or a corporation, registered for business in _____(country) and does does not have an office or fiscal paying agent in the United States; or
- (d) It is a type of business organization not otherwise listed above (*describe* _____).

**INSTRUCTIONS TO OFFERORS - COMPETITIVE ACQUISITION (11-2M)
(FEB 2020) (11.12.3(b))**

- (a) Submission of Offers.

(1) Offers shall be valid for a minimum of 30 days from the date offers are due.

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- (2) All offers and resultant contracts are subject to the conditions set forth in this solicitation and the BPI. By submission of this offer, the offeror agrees to be bound to the Protest procedures specified in the BPI in BPI 21.2.
 - (3) Bonneville may reject late offers. Bonneville reserves the right to not consider proposals from potential offerors other than those solicited by the CO.
 - (4) Offerors shall submit their proposals in a timely manner, using either electronic format or hard copy, as identified in the solicitation. The CO may disqualify offers which do not include the materials as set forth below, or which fail to adhere to any content restrictions herein.
- (b) Required materials. Offerors shall submit the following materials subject to the formatting, content, and restrictions set forth below.

(1) Business/Pricing Proposal:

Offeror shall submit a Business Proposal that shall show all price proposed to fulfill the requirements of the solicitation. The Business Proposal shall provide the price information which shall be used to assess whether the price proposed is fair and reasonable. Price shall be addressed only in this Business Proposal section, and in any transition/phase-out proposals if applicable, and nowhere else.

- (i) Completed and signed Form 4220.55 (Section A of the RFP/RFQ)
- (ii) Completed Provisions 4-1, 4-3, 8-1, 9-1 and 11-1 of Section F, Attachment F5 of the RFP/RFQ.
- (iii) The offeror's price proposal shall consist of a completed Schedule of Items as it appears in Section B of the RFP/RFQ. Offeror shall copy, complete and submit the Schedule as its pricing submission under this Business Proposal requirement.
- (iv) The offeror's price proposal shall also address the following areas and include the documents below: **Section F4 Schedule of Prices.**

(2) Technical/Management (Non-Price/Cost) Proposal

The technical/management proposal shall include the following items, which will be evaluated against the non-price/cost evaluation factors identified in the Award Decision clause, Clause 11-3 or Clause 11-4, as applicable, identified in this Section F, Attachment 5 of the RFP/RFQ. No reference to specific costs shall be made in the technical proposal.

- (i) Materials addressing offeror's ability to provide the quality and specifications of the products or services as identified in the Statement of Work or requirements document. Unnecessarily elaborate proposals, brochures or other presentations beyond those sufficient to present a complete and effective response to this solicitation are not desired and may be construed as an indication of the offeror's lack of cost consciousness. Elaborate art work, letters of commendation, expensive paper and bindings, and expensive visual and other presentations are neither necessary nor wanted. Additionally, copies of Bonneville provided materials are not needed.
- (ii) Special Instructions: Bidder must address evaluation factors listed in AWARD DECISION – LOWEST PRICE TECHNICALLY ACCEPTABLE (11-3)(MAR 2018) (11.13.2.2).
 - (1) Work Plan.
 - (2) Key Personnel.
 - (3) Past Performance/Experience.
 - (4) Equipment.

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(3) Past Performance. Please see Evaluation Factor 3 Past Performance / Experience.

(c) Evaluation of Offers.

(1) Evaluation Team. Proposals shall be reviewed by a panel of evaluators, if appropriate, or by the Contracting Officer as the source selection official. Each proposal shall be evaluated in accordance with the evaluation factors as identified in the Award Decision clause, Clause 11-3 or Clause 11-4 as applicable, included in this Section F, Attachment 5 to the RFP/RFQ. Bonneville may award a contract on the basis of initial proposals received, without negotiations or any opportunity for oral presentations. Therefore, each initial offer should contain the offeror's best terms from a cost or price and technical standpoint. Note that all scoring by an evaluation team is considered advisory only, and is not binding on the Contracting Officer.

(2) Business Proposal.

- (i) The Price/Cost Proposal shall be evaluated to determine the reasonableness of the offerors' proposed price/cost. The offerors' price/cost proposal shall be evaluated using price analysis as well as cost analysis, if appropriate. See BPI 12.5.2. Cost/price must be reasonable and will not be scored.
- (ii) Where the Business Proposal includes pricing for option years, Bonneville shall evaluate offers for award purposes by adding the total costs for all options to the total costs for the basic requirement. Evaluation of options shall not obligate Bonneville to exercise the options. In evaluating the total year costs, to include base year plus all option years, Bonneville will place more weight on the base year costs due to the uncertainty of award of option years.

(3) Technical Proposal.

- (i) Lowest Price Technically Acceptable. The evaluation factors as identified in the RFP/RFQ are evaluated against the stated minimum standard for acceptability and given a pass/no pass rating. Those offers meeting the minimum standard for acceptability are then evaluated for lowest price. The award shall be made to the offer representing the lowest price technically acceptable offer.

(4) Past Performance.

- (i) Bonneville focuses on information that demonstrates quality of performance relative to the complexity of the procurement under consideration. The offeror's references will assist Bonneville in collecting this information. References other than those identified by the offeror may be used by Bonneville. All such information may be used in the evaluation of the offeror's past performance.
- (ii) Bonneville reserves the right not to contact all the references provided by the offeror. Names of individuals providing reference information about an offeror's past performance shall not be disclosed.
- (iii) A firm without a record of relevant past performance and past effectiveness shall not be evaluated favorably or unfavorably for this category.

(d) Selection for Award.

- (1) Award shall be made to the offeror who has submitted an offer which provides the best buy to Bonneville as evaluated in accordance with the basis identified in the Award Decision clause, Clause 11-3 or Clause 11-4 as applicable, included in Section F, Attachment 5 of the RFP/RFQ.
- (2) Unsuccessful offerors must request a debriefing within three calendar days of receipt of notification of elimination from consideration, or of award notice, per BPI 12.8.3.

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AWARD DECISION – LOWEST PRICE TECHNICALLY ACCEPTABLE (11-3) (MAR 2018) (11.13.2.2)

(a) Bonneville is seeking offers that provide the best combination of attributes in order to select the "best buy" offer. Bonneville shall determine which offer represents the best buy based on evaluation of the identified evaluation factors and identification of the lowest price technically acceptable offer. The evaluation factors to determine minimum technical acceptability are identified below:

1. Work Plan:

- a. Contractor shall provide a detailed work plan outlining all definable features of work with respective start and finish dates which includes all risks, assumptions, exclusions, and dependencies inherent to the work plan.
 - i. *Minimum acceptability criteria* – Work Plan should contain sufficient detail to demonstrate that the offeror completely understands the requirements necessary to successfully complete the project.

2. Key Personnel:

- a. Provide detailed resumes of all key personnel that will be employed for this project including the names, specific experience, qualifications, and certifications relevant to this project. Examples: site superintendent, project manager, ground crew, pilot, etc.
 - i. *Minimum acceptability criteria* – Each proposed key personnel listed in the CSHRPS must have the minimum requirements stated within and all others must have a minimum three years relevant experience in the role in which they are proposed. Must include information regarding any professional certifications, licensing, etc.
 1. Example- CSHRPS 6.3.1- Must have 200 hours or more of vertical reference long line experience; 6.3.2 Pilot-in-command must have 50 hours or more of aerial tree trimming experience with the make and model of aerial saw and helicopter within the previous 12 months. 6.4 Must have completed the CAS vendors FAA Regulations Part 133 initial, recurrent or qualification-training program in the previous 12 months.
 - ii. Please read the CSHRPS for more information on specific qualifications/requirements (see CSHRPS attachment).

3. Past Performance/Experience:

- a. Submit three examples of similar scope, size and complexity projects completed within the last five years. Examples must contain contact information for reference checks.
- b. *Minimum acceptability criteria* – Experience must show three examples of similar scope, size and complexity projects completed within the last five years. Reference checks must be positive.

4. Equipment:

- a. Provide details on equipment being used on this project to include the aircraft, tree cutting system, fuel truck(spill kit), GPS Tracking/Navigational System compatible with KMZ and/or shapefiles, and any other major pieces of equipment that will be used in performance of this project.
 - i. *Minimum acceptability criteria* – Aircraft records must show that all maintenance, inspections, and licenses meet federal and state FAA requirements. Cutting system must show that a DOE certified inspection has been completed and must have a hydraulic operational device with positive control ability for the pilot and be able to grapple trees, make cuts with saw, and provide strategic placement of cut offs either at the tree base or an alternate pre-determined location and an emergency release safety feature. Vendor must also be current on the DOE CAS list which includes a basic inspection of the vendors operation.

ATTACHMENT F5

ADDITIONAL REQUIREMENTS

CONTRACTOR SAFETY EVALUATION

All firms considered for award will be evaluated for safety past performance through a Bonneville approved contractor safety prequalification subscription service. Contractors shall subscribe to the subscription service and provide the information required to enable Bonneville to evaluate safety and health history. For subscription information, please visit <http://www.bpa.gov/Doing%20Business/Pages/Contractor-Safety.aspx>. The contractor shall have an acceptable safety rating within 45 days of selection for award.

PRE-PROPOSAL CONFERENCE

A pre-proposal conference will be conducted upon the request of the bidder. If after reviewing the solicitation package, the bidder is left with questions that need to be answered in order to provide a complete and comprehensive proposal, they must contact the Contracting Officer at taholtcamp@bpa.gov and request a conference.

King,James J (CONTR) - CGI-7

From: Sheppard,Charles A (BPA) - TFBV-DOB-1
Sent: Tuesday, December 1, 2020 3:17 PM
To: Morse,Christopher S (BPA) - TFBV-DOB-1; Beasley II,James W (BPA) - NFC-MODW;
Poage,Stephen D (CONTR) - NFC-WHSE-EAST; Strombom,Jennifer L (BPA) - TFBV-
CHEMAWA; Tinseth,Kenneth H (BPA) - TAA-HANGR
Subject: Swanson Group ISN.pdf
Attachments: Swanson Group ISN.pdf

Here is some more ISN information on Swanson Groups past performance.

Past Performance Statistics: (b) (5)

Swanson Group Aviation LLC

Date: 12/01/2020

This record is redacted under 5 U.S.C. Sec. 552 (b)(5).

No.	Question	Response	Score
(b) (5)	(b) (5)		
(b) (5)	(b) (5)		
(b) (5)	(b) (5)		

(b) (5)

(b) (5)

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(b) (5)

(b) (5)

BONNEVILLE POWER ADMINISTRATION

Contractor Safety and Health Requirements for Prime and Subcontractors

Effective Date: October 1, 2020

Version: 21-1



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CHAPTER 1 – GENERAL REQUIREMENTS – APPLICABLE TO ALL BPA PROJECTS

This document applies to contracts containing Bonneville Purchasing Instruction (BPI), Clause 15-12, Contractor Safety and Health and Clause 15-13, Contractor Safety and Health Requirements. Chapter 1, General Requirements, applies to ALL work. Chapters 2 through 5 are specific to the types of work required by the following documents:

- Statement of Work
- Construction Specification

The Contractor will ensure that all workers, subcontractors, and suppliers comply with the requirements of this document.

1. General:

- 1.1 The Contractor will furnish to each employee a workplace that is free from recognized hazards that are causing or likely to cause death or serious physical harm. The Contractor will comply with the regulations promulgated under the Occupational Safety and Health Act (OSHA) of 1970. Each Contractor and Subcontractor employee will comply with all Federal and State safety and health regulations, standards, and requirements. In fulfilling these requirements, the Contractor will comply with:
 - 1.1.1 Department of Labor Safety and Health Standards for Construction under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3701 et seq.).
 - 1.1.2 29 CFR Part 1910, Occupational Safety and Health Standards for General Industry or equivalent OSHA State plan standards.
 - 1.1.3 29 CFR Part 1926, Occupational Safety and Health Standards for Construction or equivalent OSHA State plan standards.
 - 1.1.4 All Federal and State safety and health rules and regulations applicable to the contract work, as supplemented by BPA Work Standards, manufacturer instructions, and safety and health requirements stated below or elsewhere in the contract. If there are conflicts between any of the requirements referenced in this contract, the more stringent requirement will prevail.
- 1.2 Notification of Imminent Danger and Workers Right to Decline Work
 - 1.2.1 All workers, including Contractors, and BPA workers, are responsible for identifying and notifying other workers in the affected area of imminent danger at the site of work. Imminent danger is any condition or practice that poses a danger that could reasonably be expected to cause death or severe physical hardship before the likelihood of such danger could be eliminated through normal procedures. Contract workers have the right to ask, without reprisal, their onsite management and other workers to review safe work procedures and consider other alternatives before proceeding with a work procedure.
 - 1.2.2 Workers have the right to decline to perform tasks or call for a temporary stand-down, without reprisal, that they believe will endanger their safety and health and the safety and health of other workers. BPI Contract Clause 15-12, *Contractor Safety and Health*, requires Contractors to establish procedures that allow workers to cease or decline to partake in work that may threaten the safety and health of the worker.

1.3 Incident Reporting/Investigations.

- 1.3.1 All incidents related to; contract-related work, operations, or facility for which this manual is applicable will be reported, investigated and analyzed.
- 1.3.2 Contractor employees are responsible for reporting all incidents immediately to their Employer or Supervisor.
- 1.3.4 Contractor are responsible for reporting all incidents to the Contracting Officer (CO), Contracting Officer's Representative (COR) and BPA Safety Organization within 24 hours. No Contractor may decline to accept a report of an incident from a subordinate.
 - 1.3.4.1 For all OSHA recordable incidents the Contractor will complete and file with the CO and COR, BPA Form 6410.15e, Contractor's Report of Personal Injury, Illness or Property Damage Accident within 24 hours of such an occurrence. The Contractor will submit applicable photographs and witness statements.
 - 1.3.4.2 For all Non-OSHA recordable incidents, the Contractor will complete and file with the CO and COR, BPA Form 6410.18e, Contractor's Report of Incident/Near Miss within 5 calendar days of such an occurrence. The Contractor will submit applicable photographs and witness statements.
- 1.3.5 Any incident that has, or appears to have, any of the consequences listed below in subparagraph 1.3.6 will be reported within 1-hour of occurrence to the CO and COR. The report will then be assigned to a BPA Safety Manager for further action.
- 1.3.6 These accidents will be investigated in depth by both the Contractor and BPA to identify all causes and to recommend hazard control measures. The COR will immediately notify the BPA Safety Organization when any of these occurs and subsequently follow-up with official accident investigation report. The accident investigation report will be due to the COR within 45 calendar days from the date of the accident.
 - 1.3.6.1 Fatal injury/illness;
 - 1.3.6.2 Permanent totally disabling injury/illness;
 - 1.3.6.3 Permanent partial disabling injury/illness;
 - 1.3.6.4 One (1) or more persons hospitalized as inpatients as a result of a single occurrence;
 - 1.3.6.5 Three (3) or more individuals become ill or have a medical condition that is suspected to be related to a site condition, or a hazardous or toxic agent on the site;
 - 1.3.6.6 BPA or Contractor aircraft destroyed or missing;
 - 1.3.6.7 Contractors are responsible for notifying OSHA in accordance with 29 CFR 1904.39 within 8-hours when their employee(s) is fatally injured or 1 or more persons are hospitalized as inpatients as a result of a single occurrence.
- 1.3.7 Any incident that meets the requirements of 1.3.6 above, the Contractor will perform the following actions to support the BPA's accident investigation team:
 - 1.3.7.1 All workers will immediately stand-down and stop work at the site.

- 1.3.7.2 The Contractor will secure the site, from any changes until released, in writing, by the CO in consultation with the BPA Safety Organization.
- 1.3.7.3 Ensure all witness statements are gathered and provided to the BPA investigation team upon arrival to the site.
- 1.3.7.4 The Contractor and their workers, and subcontractors, will cooperate fully with the BPA accident investigation team.
- 1.3.7.5 Provide all worker training logs and records, within 24 hours of request.
- 1.3.7.6 Provide a summary of any medical injuries, and any additional information on the workers' physical capabilities/readiness level to perform work.

2. Safety Plans:

- 2.1 Prepare, implement and enforce a written Safety Plan (SP) for each contract or task order utilizing BPA's Safety Plan Template. The SP will address all employee work process hazards, and controls.
- 2.2 Abbreviated Safety Plans may be prepared for contracts with low risk activities that meet the following criteria:
 - 2.2.1 Contractors entering energized facilities solely for observation activities. Examples, project management, design scoping (observation only), engineering studies (observation only)
 - 2.2.2 Work requires no advanced or specialized personal protective equipment (PPE) beyond hard hat, safety boots, safety glasses and reflective vest (examples of advanced or specialized PPE: personal fall arrest/restraint system, respirator, rubber gloves, ear plugs/hearing protection, Flame Resistant (FR) clothing, etc.), lead worker training, lead awareness, asbestos awareness, or asbestos worker training.
 - 2.2.3 Work requires no specialized training, formal training, licensing, certification or qualification (examples of specialized training and licensing: HVAC, Industrial Lift Truck, Permit Required Confined Space Training, Fall Protection Training, Crane Operator certification, pest control applicators license, etc.).
 - 2.2.4 Work does not directly expose contractor employee(s) to the hazards associated with other work (examples: suspended load, aggregate haulers where delivery of materials requires material handling or site hazard exposure, heavy equipment is in operation, traffic control flaggers).
- 2.3 The CO will notify the Contractor if the Abbreviated SP is authorized.
- 2.4 Copy of the Contractor's written SP is to be submitted at least 10 business days prior to the start of on-site work. If the BPA Safety Organization determines the SP to be insufficient, they may stop the contractor's right to start any or all of the on-site work.
 - 2.4.1 If the BPA requests that the SP be revised and resubmitted following review, the revised portions will be highlighted when resubmitted. The BPA will have 3 business days to review and respond to the Contractor's revisions to the SP.
- 2.5 The Contractor will make the SP available to all workers at the work site. All workers must be familiar with its content. The SP will be available for review by BPA employees upon request.

- 2.6 The Contractor will ensure that their subcontractors, suppliers, and support personnel follow all safety and health requirements and that all personnel working on the project are knowledgeable of the content in the SP.
- 2.7 The Contractor will continuously monitor applicability and update the SP when conditions change.
- 2.8 Large Scale Logging Operations.
 - 2.8.1 For large scale logging operations, such as clear-cutting timber associated with a BPA land sale, or clearing timber for a new/replacement transmission line, the Contractor will submit a SP to the BPA Safety Organization for review and comment.

3. Waiver Process:

- 3.1 Waivers to the contract require the approval of the Chief Safety Officer (CSO) and the Deputy Director, Construction and Contract Safety. Waivers will provide an equal or greater level of protection and be substantiated with a job hazard analysis of the activity.
- 3.2 Official requests for waivers and all responses will be in writing.
- 3.3 Waiver requests will be complete and include the following:
 - 3.3.1 Identification of the current requirement for which relief is being sought, including exact quotation of the contract/regulatory language;
 - 3.3.2 Statement as to whether a waiver (total elimination of the requirement) is being sought;
 - 3.3.3 Details outlining why is not possible or practical to comply with the current requirements;
 - 3.3.4 Documentation including; maps, drawings, references, calculations, change analysis, or impacts necessary to make an informed decision. The burden of proof rests with the requesting organization. Failure to provide the requisite information will be justification for denial of the request. It is incumbent on the requestor to make the case as to why the existing requirement should be waived;
 - 3.3.5 Identification of specific time period and operation for which the request is being made. A waiver will be granted for a specific time period and operations and may not be used as a defense for failure to comply with the requirements at another time or on another project. Waivers are considered on a case-by-case basis;
 - 3.3.6 Explanation of methodology to be used in lieu of the current requirement and how the waiver provides equal to or greater protection than the stated requirement;
 - 3.3.7 A detailed Job Hazard Analysis (JHA) addressing the alternate procedure. Risk assessments will be considered as a part of the JHA process;
 - 3.3.8 Provision of any and all other standards addressing the requirement in question. It is incumbent on the requestor to research the literature to determine if any other requirement or standard exists addressing the requirement from which relief is being requested. If there is another standard(s), the requestor must identify it and provide a copy. Requests for waiver will not be processed until this requirement is met;

- 3.3.9 Waivers will remain in force for the life of the contract and be maintained with the NF Safety Office. Waivers serve as a repository and a source of information for design review on any/all future contracts.
- 3.4 The requestor will work the waiver action with the assigned Safety and Occupational Health Manager and the respective COR. The requestor will provide an official signed memorandum requesting consideration. These documents will be sent via mail in hard copy or via e-mail with attached documentation in Portable Document Format (pdf) to the Deputy Director, Construction and Contract Safety Manager, Construction Safety, with a copy furnished to the Chief Safety Officer.
- 3.5 The Director of Construction Safety and the assigned Safety Manager will evaluate the request and will have a minimum of 10 business days from the date of receipt to consider the request and to render a written decision.
- 3.6 A waiver will not be carried over to other operations unless the evaluators extend the scope to include other times and activities. If warranted, the Construction Safety Manager may issue an organizational waiver based on an individual request, however an organizational waiver normally indicates a flawed requirement and hence, the actual requirement may be in need of correction/change.

4. Blasting:

- 4.1 Adequate geotechnical investigations will precede all blasting operations to determine characteristics of the materials to be blasted.
- 4.2 All blasting must comply with the requirements in project construction specification, Section 31 23 16.29 - Blasting.

5. Emergency Communications:

- 5.1 The Contractor will ensure that field supervision maintains a reliable method of emergency communications in the event of accident or illness. The Contractor will conduct communication checks/tests to ensure quality of communications with emergency personnel and BPA representative(s) onsite.
- 5.2 Employees will be provided with an effective means of emergency communications (i.e., cellular phone, two-way radios, or other acceptable means).
- 5.3 The selected method of communication will be readily available (within immediate reach) of the employee(s) and will be tested prior to the start of work to verify effective operation, specifically as it relates to remote work areas.
- 5.4 An employee check-in/check-out communication procedure will be developed to ensure employee safety.

6. Emergency Action Plan:

- 6.1 The Contractor will assess, develop, and prepare an Emergency Action Plan. The plan will be in writing, kept at the workplace, and available to employees for their review. Note: An employer with 10 or fewer employees may communicate the plan orally to employees.

- 6.2 The Contractor will identify procedures for reporting a fire or other emergency, locate and provide directions to the nearest emergency medical facilities, identification of evacuation routes, assembly areas, and a procedure for accounting for all employees. This will include phone numbers for emergency services in the area.
- 6.3 Many BPA facilities have an Occupant Emergency Plan (OEP). Each occupant, including Contractors and subcontractor(s) must be aware of and familiar with the OEP. OEPs may be obtained from the CO or BPA District Manager prior to the start of work.

7. Permit Required Confined Spaces:

- 7.1 The Contractor will identify any required worker entry into a Permit Required Confined Space (PRCS) / Confined Space (CS) as defined by Federal OSHA Standards, 1910.146 (General Industry) or 1926.1200 (Construction) and applicable State requirements or Industry standards.
- 7.2 The Contractor will evaluate and identify any PRCS/CS entry and demonstrate, through the preparation of the employer's written procedure for preparing and issuing permits for entry and for returning the permit space to service following termination of entry. The Contractor will review and post all entry permits at the point of entry into the space.
- 7.3 The Contractor will test for hazards before, and during, any worker entry into an identified PRCS and confined space.
- 7.4 The employer will retain each canceled entry permit for at least one year to facilitate the review of the permit-required confined space program required of this section. Any problems encountered during an entry operation will be noted on the pertinent permit so that appropriate revisions to the PRCS program can be made.
- 7.5 The employer will provide training so that all employees whose work is regulated by this section acquire the understanding, knowledge, and skills necessary for the safe performance of the duties assigned under this section.
- 7.6 The employer is required to evaluate and address rescue service's ability, in terms of proficiency with rescue-related tasks and equipment, to function appropriately while rescuing entrants from the particular permit space or types of permit spaces identified. To facilitate non-entry rescue, retrieval systems or methods will be used whenever an authorized entrant enters a permit space, unless the retrieval equipment would increase the overall risk of entry or would not contribute to the rescue of the entrant. Retrieval systems will meet applicable regulations and standards.

8. Access to Energized Facilities and Communications Sites:

- 8.1 Rules and requirements governing the issuance of Permits for unescorted energized access, movement within, and exit from energized facilities and communication sites are defined in BPA's *Rules of Conduct Handbook (ROCH)*. Contractors will comply with these requirements.
- 8.2 All Contractor workers must obtain a Non-Electrical Worker, Restricted Electrical Worker, or Electrical Worker permit, as applicable for unescorted entry to BPA energized facilities and communication sites. Un-permitted workers will be escorted at all times as indicated in the ROCH.

- 8.3 Whenever a worker enters energized facilities and communication sites, or whenever work is otherwise in proximity to BPA's normally-energized transmission facilities, the Contractor will provide for the safety of the workers and will at all times take necessary precautions to protect workers from accidental contact. At no time will any non-permitted worker or equipment come closer to energized lines or equipment than the Minimum Approach Distance (MAD) in Section 25.
- 8.4 Entry into, exit out of, and movement within an energized facility or communication site by a non-permitted person requires an escort. Escorts must hold a permit that would allow them to perform the work by the person being escorted. *See ROCH section 8.4, Escorting.*
- 8.5 No more than 5 unpermitted visitors are allowed for a single escort (5:1 ratio) at energized facilities with a North American Electric Reliability Corporation (NERC), Critical Infrastructure Protection (CIP) Physical Security Perimeter (PSP) and at Control Centers. The Contractor will discuss the specific use of escorts as a part of the SP.

9. Identification of Circuits:

- 9.1 No work will be performed on any circuit until a Qualified Electrical Worker who holds an electrical work permit has established positive identification of all electrical circuits in the work area. Before work begins, a Qualified Electrical Employee/Person in charge will ascertain by inquiry, direct observation and by instruments, whether any part of an electric power circuit (exposed or concealed) is located such that the performance of work could bring any person, tool, or machine into physical or electrical contact with it. This verification procedure will be documented prior to work beginning.

Note: The term Qualified Electrical Employee/Person is understood to mean; "Qualified Electrical Employee" is a Qualified Electrical BPA employee and "Qualified Electrical Worker" is a Contractor, non-BPA employee. These definitions provide consistency throughout this document and align with the terminology in the BPA Accident Prevention Manual (APM).

10. Utility Locates:

- 10.1 All Utility Locates are the responsibility of the Contractor. Utility Locates will occur prior to any excavations, trenching or penetrations of building structures. This includes:
 - 10.1.1 Underground utilities of all types;
 - 10.1.2 Substation grounding grids (around the perimeter of and underneath substations);
 - 10.1.3 Telecommunication tower grounding rings (buried beneath the towers);
 - 10.1.4 Counterpoise (smaller ground mats located at the base of electrical transmission towers);
 - 10.1.5 Utilities inside and below BPA facilities. This includes utilities concealed in floors, walls, ceilings, and crawl spaces.

11. Voltage Testing:

- 11.1 The Contractor will ensure that, unless a previously installed ground is present, employees test lines and equipment and verify the absence of nominal voltage before employees install any ground on those lines or that equipment.
- 11.2 If there is any indication that the circuit being tested is still energized at full line potential, the employee will:
 - 11.2.1 Not apply Portable Protective Grounds;
 - 11.2.2 Maintain Minimum Approach Distance;
 - 11.2.3 Recheck circuit identification;
 - 11.2.4 Notify dispatcher.
- 11.3 The BPA Work Standard BPA-WS-6-2, *Voltage Testing Procedures*, will be made available upon request.
- 11.4 Attachment points of portable protective grounds and bonding jumpers will be made conductive by removing any paint or corrosion before attachments are made.
- 11.5 When Personal Protective Grounds (PPGs) are required, they will be installed as close to the work being performed as practical and properly secured in such a manner as not to be disturbed during the course of the work or come in contact with personnel.
- 11.6 No disconnect switch, power circuit breaker, transformer, wave trap, fuse, or current limiting reactor will be part of the protective grounding circuit.

Note: Does not apply to a visible single-turn primary such as in a “donut” CT circuit.

11.7 Minimum Crew Size (PPGs):

- 11.7.1 The minimum crew for installing PPGs will consist of 2 Qualified Electrical Workers, or 1 Qualified Electrical Worker and an electrical worker (electrical apprentice or journey-level worker in training) who has been approved by both the Contractor’s personnel responsible for directing the work task and the Qualified Electrical Worker involved.
- 11.7.2 The minimum crew for removing PPGs will consist of 1 Qualified Electrical Worker and 1 other worker.

11.8 Installing and Removing PPGs:

- 11.8.1 All PPGs will be installed and removed with approved live-line tools.
- 11.8.2 When attaching PPGs, the ground end will be attached first then the conductor end from that same ground set will be connected to de-energized electrical parts.
- 11.8.3 Workers should avoid handling or contacting the PPGs while the conductor end is installed or removed.
- 11.8.4 During removal, all ground leads of each PPG set will be disconnected from the conductor end first. The conductor ends from that same set will be moved to a point in the clear of the de-energized electrical parts before any ground lead from that same ground set is removed from the ground end.

- 11.8.5 In some cases it may be difficult to remove a PPG with a live line tool (such as one installed during construction). In these cases, a second PPG may be installed alongside the original one. The original one may then be removed by hand, and the second and remaining ground lead removed with a live line tool.
- 11.9 When working under a Clearance, the Clearance Holder will identify all parts of the protective grounding circuit prior to the installation of PPGs to ensure that a thorough understanding of the specific grounding circuit exists by all crew members prior to the start of work.

12. Arc Flash Hazards:

- 12.1 For entry into energized facilities or communication sites, all Contractors will wear arc-rated clothing (long-sleeved shirts and pants or coveralls) with a minimum rating of 8 cal/cm². Boots are required to have all leather uppers to meet the 8 cal/cm² rating. This requirement for boots is in addition to the requirements listed in 37.5 and 37.6 of Section 37 on page 28. Additional PPE may be required based on the hazard(s).

Exemption: The Contractor may request an exemption from requiring non-permitted persons to wear arc flash rated clothing during short-term duration work activities. Examples would be the delivery/removal of material or completing maintenance tasks on sanitary facilities. The work activities must be specified in detail in the Safety Plan with the Contractor ensuring that the activities by non-permitted persons will not result in an exposure to an arc event at or above 1.2 cal/cm². This must be followed in order to be granted an exemption.

Arc rated clothing will be required when unanticipated work activities require the contractor to bring in other non-permitted visitors to the work site. Unanticipated work activities would be all other work that does not fall under the short-term duration work activities described in the paragraph above. The Contractor will furnish their visitors with coveralls that have an 8 cal/cm² rating.

- 12.2 Arc flash personal protective clothing and equipment appropriate for the hazard/risk category will be utilized in accordance with OSHA 1910.269; NFPA 70E and/or BPA provided arc flash studies. At a minimum, the Contractor will address:

- 12.2.1 Incident energy analysis, or

- 12.2.2 AF PPE hazard category.

- 12.3 Electrical work (greater than 50 volts to 600 volts) will be performed in an electrically safe work condition. The Contractor may request an exemption from this requirement by completing a Contractor Energized Electrical Work Permit (CEEWP).

Note: Electrically Safe Work Condition - A state in which an electrical conductor or circuit part has been protected by the use of dielectric barriers to prevent contact by persons or conductive objects OR has been disconnected from energized parts, locked/tagged in accordance with established standards, tested to ensure the absence of voltage and grounded/bonded if determined necessary.

- 12.4 The Contractor will use the BPA form F 6410.42e, *Contract Energized Electrical Work Permit*, following instructions attached to the form. The exemption will not be considered complete until reviewed and signed in accordance with the form requirements.

- 12.5 During the duration of the work covered by the CEEWP, the Contractor will prominently display the permit where it will be visible prior to entering the work zone.

- 12.6 If, during the course of the work, an unlabeled panel is discovered, the Contractor will:

- 12.6.1 Immediately stop work;

- 12.6.2 Notify the COR for consultation with a BPA Qualified Electrical Employee and/or BPA Engineering;
 - 12.6.3 Proceed only after the calorie rating has been clearly identified and if applicable, the CEEWP has been updated;
 - 12.6.4 If the incident energy (analysis) cannot be determined the panel(s) that are not labeled will be worked in an electrically safe work condition.
- 12.7 Clearly mark the Limited Approach Boundary (LAB) to protect unqualified/non-permitted persons who may be in the vicinity of work that involves a shock or arc flash hazard. Install necessary barriers or guards in the work in accordance with Section 16, Barriers and Guards - Electrical.

13. Batteries and Chargers:

- 13.1 All battery work will be performed in accordance with the manufacturer instructions, and applicable Federal / State regulations. The BPA Work Standard BPA-WS-9-2, *Batteries & Chargers*, will be made available upon request.
- 13.2 The Contractor will ensure sufficient ventilation of gases from storage batteries to prevent the accumulation of explosive mixtures. Contractors are responsible for the atmospheric monitoring of the workspace to ensure hazardous atmospheres do not exist.
- 13.3 For safe battery handling operations, the following PPE will be made available:
 - 13.3.1 Goggles and face shields appropriate to the chemical and electrical hazard;
 - 13.3.2 Acid-resistant rubber gloves;
 - 13.3.3 Protective rubber aprons and safety shoes; and
 - 13.3.4 Lifting devices of adequate capacity, when required.

14. Capacitors:

- 14.1 Do not depend on the internal resistor of a capacitor cell to discharge capacitors. Before handling, use a bayonet-type short-circuiting and grounding rod applied between all insulated terminals and the capacitor case for at least 5 seconds. Short all cells being removed, stored or transported, with at least a No. 18 wire, between all insulated terminals and the capacitor case.

15. Conductive Devices:

- 15.1 Portable metal ladders are not permitted in energized facilities or communication sites or for use in any situation where there is danger of contact with energized lines or equipment.
- 15.2 Conductive objects such as metal tapes, surveyor chains, fish tapes, and center lines may be used in energized facilities only when specifically approved by the Qualified Electrical Worker that holds a BPA Electrical Worker Permit and restrained by adequate methods, to prevent electrical contact in the event of slippage or breakage at any point.

16. Barriers and Guards – Electrical:

- 16.1 Barriers and guards will be used where necessary to protect workers from electrical hazards that might exist. Such barriers and guards will meet the requirements of ANSI Z535, *Safety Standard Signs*.

Note: A barrier is a device that prevents electrical contact with energized parts while working within the MAD. A guard is a device used to maintain minimum approach distances, which include the margin for inadvertent movement. Example – Items such as fences and enclosures.

- 16.2 The Contractor may be required to erect, maintain, and/or remove such safety fences to prevent accidental contact between BPA's normally energized facilities and the Contractor's equipment or workers. BPA will normally furnish the safety fences required in its energized facilities or communication equipment sites. The safety fences will not be removed without consent. Safety fences furnished by BPA remain the property of BPA.
- 16.3 Barrier: Barriers will be used in conjunction with safety signs where it is necessary to prevent or limit worker access to areas containing energized conductors or circuit parts. Conductive barriers will not be used where it might increase the likelihood of exposure to an electrical hazard. Comparison must be made between the Minimum Approach Distance (MAD) listed in Table A, Table B, and Table C in Section 25, and the arc flash boundary. Barriers will be placed no closer than the greater of these two distances to ensure protection from shock and arc flash hazards.
- 16.4 Attendants: If signs and barriers do not provide sufficient warning and protection from electrical hazards, an attendant will be stationed to warn and protect workers. The primary duty and responsibility of an attendant providing manual signaling and alerting will be to keep unqualified person(s) outside a work area where the unqualified person might be exposed to electrical hazards. An attendant will remain in the area as long as there is a potential for workers to be exposed to the electrical hazards.
- 16.5 Look-alike Equipment: Work may be performed on equipment that is de-energized and placed in an electrically safe work condition while other energized equipment of similar size, shape, and construction is located in the same vicinity. When this situation exists, safety signs and tags, barricades, and/or attendants will be used to prevent workers from entering look-alike equipment. It should be noted that these methods do not relieve the worker of accurate equipment verification.
- 16.6 Areas guarded with red-and-white rope will not be entered. This guard is used on the ground and in structures to prohibit all persons from entering the energized zone. Only a BPA Qualified Electrical Employee may remove red-and-white rope.
- 16.7 Areas guarded with yellow-and-black rope may be entered by holders of an Electrical Worker Permit. Entry by others is prohibited unless accompanied by a holder of an Electrical Worker Permit. Yellow-and-black rope guards will be installed under the supervision of a BPA Qualified Electrical Employee. This guard may be removed by others upon approval of the responsible BPA Qualified Electrical Employee.
- 16.8 Red-and-white and yellow-and-black rope will not be used for any purpose except electrical guards. No other rope color will be used for electrical guards. The BPA Safety Organization must approve special-purpose electrical barriers and guards.

17. Barriers and Guards – Non Electrical:

- 17.1 Barriers and guards, known to be adequate for other circumstances, must also be utilized in protecting against mechanical, environmental, and other nonelectrical hazards such as open excavations or manholes. Environmentally contaminated areas will be guarded and identified by signs and may be entered only by persons who have been trained to protect themselves from the hazards of the contaminants present.

18. Electrical Contact Protocol:

- 18.1 Any worker experiencing an electrical shock of any type will be transported to the nearest emergency medical facility as soon as possible.
- 18.2 Electrical Contact is defined as any current flow through or across the employee's body or if any of the following is true.
 - 18.2.1 Burns or wounds;
 - 18.2.2 Interrupted or impaired breathing;
 - 18.2.3 The employee not able to let go of a circuit or equipment;
 - 18.2.4 Any neurological problems, including but not limited to tremors, shaking, numbness, difficulty balancing, difficulty walking, confusion, disorientation, speech difficulties, vision problems, or bladder problems, or headache;
 - 18.2.5 Pain lasting greater than 5 minutes.
- 18.3 Following any electrical contact injury immediately call 911, Emergency Medical Services (EMS) and initiate First Aid. Do not transport the injured employee, unless the accident occurred in a remote location.
- 18.4 Remote Location Instructions:
 - 18.4.1 Notify the BPA Dispatcher and inform them of the location (including the county) and nature of the accident.
 - 18.4.2 Supervisors will ensure that all employees are informed of procedures for summoning emergency medical services at their work locations. Dispatch is to be notified as soon as possible.
 - 18.4.3 While awaiting medical response, employees should stabilize and care for the injured (to the extent of their First Aid training). Do not attempt to move the injured person unless they are at risk of further injury from hazards at the scene or directed to do so by medical personnel.
 - 18.4.4 Assist EMS personnel in arriving at the accident scene. If available, a crewmember may be sent to meet EMS at a main road crossing, intersection or landmark to have medical personnel follow them to the scene.
- 18.5 Return to Duty: Employees involved in an electrical contact injury must be evaluated for return to work in accordance with their company policy.

19. Ground Grid:

- 19.1 At BPA non-energized communication sites, the installation of ground grids and any connections to the ground grid are not considered electrical work. The Contractor will have experience installing lightning protection ground grids and will be adequately trained and familiar with the safety-related work practices involved with such installations.
- 19.2 Installation or repair of ground grids in energized facilities or counterpoise on transmission line rights-of-way, and any connections to these ground grids, are considered electrical work. These installations will be performed by a qualified person of a licensed electrical Contractor. The licensed electrical Contractor will have experience working in energized facilities and/or on transmission line projects.
- 19.3 The use of dielectric gloves is required when operating substation gates that have been identified to have insufficient ground grid protection when being operated. BPA maintains a database for the gates that may pose a hazard when operated. Signs identifying the required mitigation measures for safety have been placed on these gates.

References: The BPA Substation Maintenance Standard SM-STD-13-1-5, *Precautions When Contacting the Substation Ground Grid or When Excavating*.

20. Grounding:

- 20.1 The Contractor is responsible for protecting workers from sources of power system energization. Grounding of lines or equipment may be required to accomplish this. Sources of energization include but are not limited to:
 - 20.1.1 Electromagnetic or capacitive voltages coupled from adjacent energized lines or bus as well as electrostatic voltages from electrical charges carried by wind, dust, etc.;
 - 20.1.2 Back feed through station service or potential transformers;
 - 20.1.3 Remote lightning causing a fault on an adjacent circuit or a strike to the de-energized circuit.

Note: Portable protective grounds may not provide complete personal protection for close-in strikes. See Section 24 below for lightning curtailment requirements.

- 20.1.4 Accidental energization from the power system, power lines or other energized high voltage equipment by accidental contact or accidental closing of an isolating device.
- 20.1.5 Trapped charges such as in capacitors or on transmission lines.

A grounding plan will be developed for all work that takes place entirely on or entirely off the ground grid to mitigate the hazards of transferred potential. If it is unavoidable for a work procedure to take place simultaneously on and off the grid (such as using a crane, pulling cable and directional boring work), the BPA Clearance Holder must review the specific methods used to mitigate the hazard(s) prior to starting this phase of work.

- 20.2 In energized facilities, when (PPGs) have been installed at all possible sources of energization from the high voltage power system, separated circuit parts in the work area to be contacted during the course of the work will be bonded and tied to ground by application of either discharge grounding cables or portable protective grounds.

- 20.3 Construction Power, such as portable generators will be grounded and utilized in accordance with BPA Substation Maintenance Standard and Guides: SM-STD-13-1- 9, *Protecting Against Transferred Potential Hazards*; SM-STD-13-1-13, *Grounding Precautions*; and SM-STD-13-1-17, *Adding To & Expanding Substation Ground Grids*. These documents are available upon request.
- 20.4 When installing new lines or equipment that have not been connected to the BPA power system and have not been released to BPA Operations:
- 20.4.1 The lines or equipment will be tested/verified for the absence of nominal voltage,
 - 20.4.2 The lines or equipment are bonded or grounded as necessary, and
 - 20.4.3 Adequate clearances or other means must be implemented to prevent contact with any nearby energized lines or equipment and the new lines or equipment.
- 20.5 All normally energized conductors and equipment connected to the power system will be treated as energized until a clearance is in place, the line or equipment has been confirmed by audible device testing to be de-energized, and then grounded with a portable protective ground. No workers or equipment will come within the applicable Minimum Approach Distance unless these provisions are met.
- 20.6 Cutting or separating equipment components or circuit parts (e.g., bus, lines, etc.), that are part of a grounded circuit, could expose a worker to a possible difference of potential. In this case, the components will be bonded together and tied together to a common ground prior to separation and while working on the separated parts.
- 20.7 Portable Protective Grounds (PPGs) will be installed to protect persons from the hazards of accidental energization from any source of power system energization. PPGs will be applied before a worker or equipment contacts or comes within the MAD of the circuit.
- 20.7.1 For Each Clearance: Before workers or equipment contact or come within the Minimum Approach Distance MAD of a circuit, separate PPGs will be installed for each Clearance issued.
- 20.8 A PPG should consist of a ground lead of flexible 2/0 copper cable, or an equivalent. Exceptions to this requirement are defined as:
- 20.8.1 Permanently installed ground switches on gas insulated equipment, capacitors and reactors A BPA Qualified Electrical Employee will be consulted prior to using any permanently installed ground switches in lieu of PPG's. Certain restrictions apply before they can be used in lieu of PPG's.
 - 20.8.2 Grounding plugs, at least equal in rating to the required portable protective ground lead(s) and designed for the metal-clad/switch-gear involved, may be used in lieu of portable protective grounds.
 - 20.8.3 1/0 Underground Residential Distribution (URD) grounds for grounding, where appropriate, of URD equipment.
- 20.9 Grounding for personal protection will not be accomplished through vehicles, equipment, or rigging components.
- 20.10 Any reference to portable protective grounds will mean an adequate number of ground leads to effect, and maintain at all times, a visible three-phase short and ground on the AC circuit. Visible grounding may be accomplished through conductive parts of equal current carrying capacity as the protective grounds require, but will not be effected through a ground grid or other concealed conductors.

20.11 Multiple portable protective grounds may be required at some locations on the BPA power system when the anticipated fault current exceeds the capacity of a single 2/0 copper ground. These locations, if applicable, will be provided by BPA in project construction specification Section 01 35 27 – BPA Safety Requirements.

20.12 When performing line work at the structures, crews and all others working on conductors, sub-conductors, or overhead ground conductors will be protected by a 3-phase short to a common ground installed on the conductors being worked on at each work location.

21. Grounds, Portable Protective, Static Wire:

21.1 Before touching or coming within the MAD of any overhead static (ground) wire, unless an approved barrier is in place, it must be grounded at that location by a portable protective ground.

Note: Human External Cargo (HEC) work on an overhead static wire does not require a PPG as long as the worker is insulated from any other conductor and the worker is bonded onto the overhead static wire.

Note: Some overhead ground wires on the BPA system are insulated and energized at primary voltage to supply airway lighting circuits and cell sites. A Clearance must be obtained and grounds installed before workers can come within the MAD of these lines.

21.2 When multiple crews are working on the same line section, direct radio communications will be maintained between crews to monitor activities, and measures taken to mitigate potential interference/hazardous working conditions.

21.3 Workers will avoid handling or contacting the ground lead while the conductor end is being installed or removed. During removal, all ground leads of each ground set will be disconnected from the conductor end first. The conductor ends from that same set will be moved to a point in the clear of all the de-energized electrical parts before any lead from that same ground set is removed from the ground end.

Exception: On transmission towers where grounds are to be installed aloft, it is permissible to install or remove both ground and conductor ends on each phase prior to workers moving location. The conductor end will be connected and disconnected with live-line tools.

21.4 PPGs installed at multiple locations can cause circulating currents and hazardous voltages. These conditions can change due to line loading on adjacent lines, weather, ground conditions and the installation and removal of additional grounds.

21.5 The Contractor will continuously monitor step and touch voltages (using step and touch measuring equipment) and changing conditions as needed to ensure worker safety. Information on the step and touch measuring kit BPA uses can be found in BPA Transmission Line Maintenance Standard TLM-STD-1-1-4, *Grounding BPA Transmission Lines, Equipment and Structures*, which will be made available upon request.

22. Grounding of Power/Lift Equipment:

22.1 When a vehicle is parked near energized high-voltage equipment, there can be a risk to a person of electric shock if contact is made between the vehicle and a grounded object. This is due to the capacitive charge that can build up on the vehicle.

22.1.1 If the vehicle is to be bonded to a grounded object to prevent capacitive charge build-up, personnel must avoid getting in series with the discharge circuit.

- 22.2 Manlifts, cranes, and other overhead lift equipment working in proximity to energized lines or equipment where there is a possibility of violating the MAD, or where the possibility of accidental contact with normally energized high voltage parts exist, will be connected to the substation ground mat within energized switchyards, or to a ground rod in other locations, with a 2/0 copper ground lead. Multiple ground leads, attached to separate ground rods or mat connections, will be utilized on equipment in the same number that would be required for grounding the circuits.
 - 22.2.1 Ground Mat Connected Equipment: If the possibility of contact with normally energized high voltage parts does not exist, power/lift equipment will be grounded with a single 2/0 copper or static ground.
- 22.3 Equipment working within the MAD of cleared and grounded circuits will be at the same potential as the circuits that are being worked on. They will be bonded and tied to a common ground as required, to create an effective equipotential zone.
- 22.4 See BPA Substation Maintenance Standard SM-STD-13-1-15, *Grounding Work Equipment & Vehicles in Substations*, which is available upon request.

23. Extension Cords, Tools, and Metallic Cables:

- 23.1 When an extension cord is used in an energized switchyard, the cord's grounding box must be clamped to a solidly grounded fixture before the extension cord is connected to a switchyard receptacle. If a solidly grounded fixture is not available within 10 feet of the worksite, the grounding box will be attached to a ground rod. When using double-insulated tools, work may be done within 25 feet of the grounding box.
- 23.2 The BPA Substation Maintenance Standard SM-STD-13-1-9, *Protecting Against Transferred Potential Hazards*, for grounding box requirements ("Eartha-Kits") is available upon request.
- 23.3 Extension cords or other metallic cable (i.e., telephone or temporary power) used in a switchyard should not be laid parallel to high voltage bus or overhead circuits due to the possibility of high induced voltages. These cables will not be extended to locations off the substation ground mat unless a properly designed and installed ground mat extension or isolation is used.

24. Lightning Work Curtailment:

- 24.1 Work will be suspended and personnel will seek a safe haven during times that local or close-in lightning is within sight or sound, and remain in the clear for thirty minutes after the last flash of lightning is seen or thunder is heard.
- 24.2 Employees may return to work after the Supervisor assesses the work environment and deems that it is safe to do so.

25. Minimum Approach Distance (MAD):

- 25.1 The Contractor will not perform any work on energized BPA high voltage conductors or equipment and will not come within the MAD of energized lines or equipment except under the provisions of the Clearance.
- 25.2 Do not allow equipment, machinery, and vehicles traveling on BPA's right-of-way to come within 25 feet of any BPA transmission line structure or guy wires unless:

25.2.1 Spotters are used to ensure safe work distances from structures.

25.3 Inside the fence – All conductors and equipment will be treated as energized unless the Contractor has been informed by the qualified BPA Clearance Holder at their work site that the line or equipment is de-energized and cleared for the Contractor to perform their work.

Outside the fence – All line conductors and equipment located outside of a substation will be treated as energized unless the Contractor has been informed by a Qualified BPA Clearance Holder or Qualified Contractor Clearance Holder at their work site that the line or equipment is de-energized and cleared for the contractor to perform their work.

25.4 All overspray will be considered conductive. Wind and other conditions will be taken into account to ensure that the MAD is not violated by overspray or equipment (e.g., herbicide application/painting in a substation).

25.5 When work is to be performed within the MAD, including the installation and removal of barriers one of the following must be employed:

25.5.1 Approved barriers;

25.5.2 Use of live-line tools;

25.5.3 Clearance;

25.5.4 Lockout/Tagout (on voltages 600V and below).

25.6 Conductive objects, such as insulator support hardware, which extend into the MAD, may be contacted outside the applicable MAD. However, such objects must have been installed with approved design standards and be fixed or limited in movement so that the designed clearances cannot be reduced.

25.7 Only persons qualified and trained to perform work safely on or in close proximity to energized lines and equipment will be allowed to work or operate equipment up to the applicable MAD tables.

25.8 The distances in the following tables meet the minimum requirements prescribed by OSHA 1910.269. The “MAD Without Hold Order” column accounts for transient voltages that can be generated by automatic reclosing, whereas the “MAD With Hold Order” columns are for transient voltages that can occur at the worksite even with automatic reclosing disabled. Table A, Table B, and Table C provide the AC MAD’s based on three elevation categories as listed in the heading of each table and will be applied based on the elevation of the work site. The referenced Work Standard is available upon request.

Note: The tables below are dated 1 November 2019.

Table A – AC MAD for Qualified and Restricted Electrical Workers – Elevations 0’ to 3000’

Table A - MAD for Elevations 0’ to 3000’			
Nominal System Voltage Phase to Phase (kV)	Phase-Ground MAD (1)		Phase-Phase MAD (1)
	MAD Without Hold Order & NO Tools	MAD With Hold Order for Tools	MAD With Hold Order for Tools
50 – 300 V	Avoid Contact		
301 – 750 V	1’-1”	1’-1”	(2)
751 V - 5 kV	2’-1”	2’-1”	(2)
15	2’-2”	2’-2”	(2)
34.5	2’-7”	2’-7”	(2)
69	3’-4”	3’-4”	(2)
115	3’-6”	3’-2”	4’-1”
138	4’-0”	3’-4”	4’-6”
161	3’-8”	3’-8”	5’-0”
230	6’-2”	4’-5”	6’-8”
287	5’-2”	4’-11”	7’-9”
345	5’-11”	5’-9”	9’-10”
500 (100” Design)	8’-8”	7’-6”	14’-6”
500 (All Others) (4)	9’-10”	7’-6”	14’-6”
500 Series Caps (3,4)	11’-3”	11’-11”	24’-1”

Table B – AC MAD for Qualified and Restricted Electrical Workers Elevations 3001’ to 6000’

Table B - MAD for Elevations 3001’ to 6000’			
50 – 300 V	Avoid Contact		
301 – 750 V	1’-1”	1’-1”	(2)
751 V - 5 kV	2’-1”	2’-1”	(2)
15	2’-4”	2’-4”	(2)
34.5	2’-9”	2’-9”	(2)
69	3’-7”	3’-7”	(2)
115	3’-9”	3’-3”	4’-4”
138	4’-3”	3’-5”	4’-9”
161	3’-10”	3’-10”	5’-4”
230	6’-7”	4’-9”	7’-1”
287	5’-4”	5’-3”	8’-3”
345	6’-4”	6’-0”	10’-6”
500 (100” Design)	9’-3”	8’-0”	15’-7”
500 (All Others) (4)	10’-6”	8’-0”	15’-7”
500 Series Caps (3,4)	12’-0”	12’-9”	25’-11”

**Table C – AC MAD for Qualified and Restricted Electrical Workers
Elevations 6001’ to 9000’**

Table C - MAD for Elevations <u>6001’ to 9000’</u>			
50 – 300 V	Avoid Contact		
301 – 750 V	1’-1”	1’-1”	(2)
751 V - 5 kV	2’-1”	2’-1”	(2)
15	2’-6”	2’-6”	(2)
34.5	2’-11”	2’-11”	(2)
69	3’-9”	3’-9”	(2)
115	3’-11”	3’-5”	4’-8”
138	4’-5”	3’-8”	6’-6”
161	4’-0”	4’-0”	5’-7”
230	6’-11”	4’-11”	7’-5”
287	5’-7”	5’-5”	8’-8”
345	6’-8”	6’-4”	11’-1”
500 (100” Design)	9’-9”	8’-5”	16’-5”
500 (All Others) (4)	11’-0”	8’-5”	16’-5”
500 Series Caps (3,4)	12’-8”	13’-5”	27’-4”

Notes — Minimum Approach Distances — Special Conditions for AC and DC:

With verification of the actual substation bus height and location elevation the inadvertent movement factor (IMF) of 12 inches, included in MAD for worker motions, may be deducted at 115 kV and above to specifically allow vehicles in transit to safely pass under energized bus at those voltages. Equipment in transit (not being used to perform work) will have secured any moveable parts (i.e. buckets, forks, load lines, loads) that could reduce clearances.

“Avoid contact” is defined as any movement near an exposed energized conductor which could lead to contact whether it is intentional or not.

1. Phase-to-Phase work with tools in the air gap will include a deduction for any floating (insulated boom/bucket) or metallic conductive (hardware, insulators, armor rod) objects. This applies to both substation and transmission line work.
2. Phase spacing below 115 kV will not allow adequate MAD distances to be maintained for phase to phase work.
3. If all of the series capacitors on a line are bypassed the MAD for series capacitors located mid-line may be the same as the MAD used for lines without series capacitors. The ‘with’ and ‘without hold order’ MADs are the same for lines with series capacitors in service.
4. For line end series capacitors connected adjacent to a 500 kV substation, the 500 kV MAD listed for “All Others” may be used for work on series capacitor equipment.

Table D – MAD With or Without Hold Order (ft.-in)

Table D - MAD With or Without Hold Order (ft.-in)	
Insulated Overhead Ground Wire	2'-0"
Fiber Optic (OPGW or ADSS)	2'-0"
Energized Ground Wire (Airway lighting & PCS up to 14.4 kV)	2'-6"
500 kV Bare - Segmented Ground Wire	3'-9"

DC Minimum Approach Distances:

The DC MAD for Tools include a safety factor that permits the introduction of tools in the air gap to perform live-line work. The MAD stated as with and without Hold Order are the same since DC restarts (as opposed to AC reclose) do not create high system over-voltages after a fault. However, for all live-line work the DC terminal restart will be both blocked and disabled for worker protection. Deductions for floating and conducting objects for Pole – Pole MAD apply to DC clearances, refer to Note 1 following Table C for AC MAD's.

The MAD for the DC line and Celilo converter station will be based on the measured voltage at the Celilo converter terminals.

Table E – DC MAD for All Elevations

Table E - DC MAD for All Elevations			
Celilo Converter DC MAD – Normal Pole-Pole (Bi-Pole) Operation			
Column 1: Pole – Ground		Column 2: Pole – Pole (See Note 1 for AC MAD)	
Celilo Terminal Voltage (kV dc)	MAD for Tools (ft.-in)	Celilo Terminal-Voltage (kV dc)	MAD for Tools (ft.-in)
440	8'-8"	880	12'-6"
520	10'-9"	1040	15'-3"
Celilo Converter DC MAD - Monopole Operation (Metallic or Ground Return Mode)			
Pole – Ground (kV dc) (1)		Pole – Pole (2)	
80 (Return Pole)	3'-4"	600	11'5"

For DC MAD (below 80 kV) use the distances from the AC MAD Tables corresponding to the same voltages. The AC MAD is more conservative due to larger transient overvoltage factors.

Table E – DC MAD for Batteries and All Other Circuits

Nominal Voltage (V dc)	
50 – 300 V	Avoid Contact
301 V – 69 kV	Use AC MADs

Minimum Approach Distances for Non-Permitted Persons

Non-Permitted persons approaching normally energized equipment will not enter within the distances listed in Table G, either on foot or in a vehicle, unless given the following information by a Permitted Person:

- Procedure for identifying energized equipment
- All voltages present in the yard and how to identify the voltage level of specific equipment
- Minimum Approach Distance(s)
- The hazards associated with violation of the Minimum Approach Distances

Refer to Section 8.4 of the Rules of Conduct Handbook.

Table F – MAD for Non-Permitted Persons – All Elevations

Table G – MAD for Non-Permitted Persons – All Elevations	
Nominal System Voltage (kV)	Phase-Ground (ft.-in)
Up to 345 kV	15'0"
Above 345 kV	20'0"
Energized Ground Wire (Airway lighting & PCS up to 14.4 kV)	15'0"
Insulated Overhead Ground Wire	10'0"
Fiber Optic Ground Wire (OPGW)	10'0"
500 kV Bare - Segmented Ground Wire	10'0"

Persons with Electrical Worker Permits may drive motor vehicles or operate mechanical equipment near energized facilities as long as the MADs in the tables above are maintained. Refer to BPA Work Standard BPA-WS-5-1, *Minimum Approach Distance (MAD)*, Considerations for additional information on vehicle and equipment clearances and corresponding system operating conditions, is available upon request.

Persons without an Electrical Worker Permit may drive motor vehicles or operate mechanical equipment near energized facilities and must comply with the Safety Watcher requirements in Section 26, below.

Table 1 – MAD for Vehicles and Equipment

Nominal Voltage (Phase-to-Phase)	Phase-to-Ground (ft.-in)
Up to 345 kV	15'-0"
500 kV AC	20'-0"
ALL DC Facilities	20'-0"
500 kV Bare-Segmented Ground Wire	3'-9"

Table 1 is used when transporting or driving equipment under energized transmission lines under the following conditions:

1. Equipment is in transit (not being used to perform work) with the boom lowered and secured and no load on the load line, forks, bucket, etc.
2. A Safety Watcher is used to ensure MAD is maintained.

Table 2 – MAD from Energized Conductors for Qualified Line Clearance Tree Trimmers

Table 2 - MAD from Energized Conductors for Qualified Line Clearance Tree Trimmers	
Nominal Voltage (Phase-to-Phase)	Phase-to-Ground (ft.-in)
51 – 300 V	Avoid Contact
301 – 5k V	2'-1"
15 kV	2'-9"
34.5 kV	3'-5"
46 kV	3'-10"
69 kV	4'-9"
115 kV	5'-2"
138 kV	5'-11"
161 kV	6'-10"
230 kV	9'-0"
287 kV	11'-3"
345 kV	15'-0"
500 kV	21'-9"
<p>NOTE: MADs are adjusted for maximum elevation on BPA's system and exceed the values listed in in OSHA 1910.269(r) Tables R-7 and R-8. Refer to ANSI Z133.1-2012 and BPA WS-5-1 for additional information</p>	

26. Safety Watchers:

- 26.1 A Safety Watcher is an Qualified Electrical Worker who knows and understands the safety rules and the electrical hazards involved in specific work situations. Primarily, Safety Watchers are responsible for limiting the movement of personnel and/or equipment to prevent electrical contact accidents. Safety Watchers have the authority to halt the operation whenever any unsafe act or condition is imminent.

The Contractor will take adequate safety measures to protect its workers and others from induced voltages as well as direct contact. The Contractor will utilize qualified Safety Watchers for the protection of workers and BPA facilities for the phases of the work where required by these specifications, law or regulations, or where it considers them to be necessary. A Safety Watcher's primary responsibility is to limit the movement of personnel or equipment to prevent contact with energized overhead or underground electrical facilities.

- 26.2 A Safety Watcher for work in BPA energized substations must be a Qualified Electrical Worker that holds a BPA Electrical Worker Permit. A Qualified Electrical Worker can be an employee of the contractor that holds a BPA Electrical Worker Permit or be a Contract Safety Watcher that holds a BPA Electrical Work Permit. Contractors may obtain a list of Contract Safety Watcher labor providers from the CO.

A Safety Watcher for work on BPA transmission lines external to an energized BPA substation must be a Qualified Electrical Worker that holds a BPA Electrical Worker Permit or a qualified line worker who holds a BPA Contractor Clearance Certification. Substation Operations maintains the Certified Contractor Directory for Contractor Clearance Certifications.

The requirements and process for obtaining an Electrical Worker Permit or a Contractor Clearance Certification are defined in the ROCH.

Safety Watchers must have the satisfactory experience and knowledge to perform their duties as a safety watcher at the high voltage facilities that they are being assigned to.

- 26.3 A Supervisor in charge of a job may not act as a Safety Watcher if there is any possibility of being distracted. Each worker is responsible for asking for a Safety Watcher whenever one is required. In the event of conflicting judgments, the more conservative interpretation will prevail, pending review and resolution by the COR or the onsite BPA Representative.
- 26.4 A Safety Watcher will position themselves in a suitable location and give their undivided attention to ensure that no action on the part of the worker(s) being watched can result in violation of the MAD applicable to workers being watched. There must be a definite understanding between the Safety Watcher and the person(s) being watched as to when the watching begins and ends. Safety Watchers, who must leave their assigned jobs, will first make sure that all worker(s) are in the clear and remain in the clear until the Safety Watcher returns or is replaced. Safety Watchers have the authority to halt the work operation whenever any unsafe act or condition is imminent.
- 26.5 A Flame Resistant (FR) rated, high visibility vest (red or orange) will be worn by the assigned Safety Watcher for all work activities which require the continual presence and observation of a Safety Watcher. It may be worn at the discretion of either the person in charge or the COR or the onsite BPA Representative in other situations requiring a Safety Watcher.
- 26.6 A Safety Watcher is required for Qualified Electrical Worker who hold a BPA issued Electrical Worker Permit under the following circumstances:

- 26.6.1 When a worker is climbing into, out of, or changing location in a substation structure containing circuits normally energized at 600 volts or more. This does not apply to circuits barricaded or located 15 feet or more from the structure for circuits at 345 kV or less, and 20 feet or more for circuits operating at more than 345 kV. Multiple bays will be considered one structure if workers can pass from one to the other without having to descend to the ground.
- 26.6.2 When inadvertent movement by a worker could result in violating the MAD as specified in tables above as applicable.
- 26.6.3 When operating or moving motor-driven equipment in the vicinity of high-voltage circuits and the possibility of accidental contact exists.
- 26.6.4 Whenever the COR, the onsite BPA Representative, or Contractor requires a Safety Watcher.
- 26.7 Safety Watchers for non-qualified workers and workers holding a BPA issued Non-Electrical or Restricted Electrical Worker Permit will be required:
 - 26.7.1 Whenever a Safety Watcher is required for Qualified Electrical Worker.
 - 26.7.2 Whenever a Clearance is necessary for the accomplishment of the work.
 - 26.7.3 When operating or moving motor-driven equipment in an energized substation yard which are not guarded or barricaded to prevent violation of the MAD indicated in Table 1, Section 25, above.
 - 26.7.4 Any time the COR, the onsite BPA Representative or Contractor requires a Safety Watcher and/or Escort Plan.
- 26.8 Safety Watcher and/or Escorting Plan: Work in energized substations and facilities may require one or more Safety Watchers and/or Escorts. As a part of the Safety Plan, the Contractor will consult with a Qualified Electrical Employee (familiar with work in high-voltage facilities). The Contractor will provide a detailed plan for their use including the work areas and the number of safety watchers and/or escorts assigned.

27. Environmental Hazards:

- 27.1 The Contractor should contact the COR to verify the status of ongoing material sampling to see if any environmental hazards have been identified. If the Contractor suspects the presence of hazardous materials not previously identified, the Contractor will notify the COR prior to disturbing the subject materials.
- 27.2 On contracts where BPA has identified that environmental hazards exist (i.e. asbestos, lead, mercury, silica, etc.) or has indicated that the potential for environmental hazards may exist, the Contractor will have a competent person on site that has the appropriate level of training to identify the hazards and select the appropriate control strategy in accordance with all Federal and State regulations. After the Contractor's Competent Person has selected a control strategy for managing the subject materials, a Site Specific Abatement (and/or Management) Plan will be developed and submitted to the BPA Safety Organization for review and comment.
- 27.3 The use of respirators is required when occupational exposure levels exceed OSHA Permissible Exposure Limits (PELs) or American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs), and engineering or administrative exposure controls are not feasible to implement.

- 27.4 When respirators are required, Contractors will prepare a written respiratory protection program.
- 27.5 The Contractor will conduct occupational exposure assessments/measurements.

28. Equipment and Rigging:

- 28.1 Custom fabricated tools or rigging equipment must be designed by a Registered Professional Engineer (RPE), marked to indicate the working load limit (W.L.L.), and proof tested to 125% of the W.L.L. prior to being used in the field.
- 28.2 The Contractor will have a program in place to adequately inspect all ropes, slings, rigging components and tools for damage or defects and follow applicable consensus standards and manufacturer recommendations for inspection and removal from service or repair. The Contractor will document their rigging inspection process and make it available to BPA personnel upon request.
- 28.3 Lifting and Hoisting using Cranes and/or Excavators: Contractor will develop and review a Lift Plan with all site workers in advance of any lift or series of lifts. For Critical Lifts Contractor will develop and submit a Critical Lift Plan to the BPA Safety Organization for review and acceptance, prior to performing the work. See BPA Critical Lift Plan Requirements.
- 28.4 Critical lifts are defined as:
 - 28.4.1. The load weight is over 75% of the cranes* rated capacity for the current configuration.*
 - 28.4.2 The Lift is occurring above or within proximity of existing electrical equipment where the minimum approach distance has the potential to be violated. Refer to Table 1.
 - 28.4.3 Lifts out of view of the Operator.
 - 28.4.4 Lifts over, or in close proximity to Railroad tracks or trestles. Lifts over, or in close proximity to highways or heavily travelled roadways.
 - 28.4.5 The Lift requires two or more cranes or other lifting devices.
 - 28.4.6 Lifts that require hoisting of workers on a suspended work platform or man basket.
 - 28.4.7 Loads to be lifted in close proximity to high voltage conductors, towers or equipment.
 - 28.4.8 Lifts in highly congested work areas where other workers are in close proximity to the Lift Zone.
 - 28.4.9 Lifts where the Load Weight is not known.
 - 28.4.10 Lifts that the Operator determines to be a Critical Lift.

*Note: The use of the word crane also includes all other lifting devices that will perform Critical Lifts. This includes large excavators and truck-mounted booms, and all other related load handling equipment.

- 28.5 Load lines will not be detached from a tower section until the section is adequately secured. Unless otherwise designated by the COR or the onsite BPA Representative, "adequately secured" is defined as having 50% or more of the attaching bolts in place. Loads will not be released until all tower legs are secured. Line workers will not tie-off to unsecured tower sections, and will not climb on to unsecured tower sections. These provisions will apply to all methods of tower erection.
- 28.6 Use of aerial lifts, manufactured hook ladders, platforms, or similar devices will be considered approved methods for clipping or dead ending conductor, and related work processes. Crawling over insulators (suspension or dead end) will not be considered an approved practice unless all of the following conditions are met:
- 28.6.1 Alternate means were impractical or created a greater hazard;
 - 28.6.2 100% fall protection methods are used;
 - 28.6.3 A written hazard analysis has been completed by the Contractor showing that crawling over insulators is the safest or only practical way of completing a specific work task. Burden of proof would be on the Contractor in each specific case;
 - 28.6.4 Climbing over dead end assemblies is permissible only after they have been completed and pinned in their final position.
- 28.7 For the safety of equipment operations, guy wires will be flagged before work commences.
- 28.8 With respects to Vegetation Management work, all rigging or equipment used to control a tree's fall will be adequately anchored, sized and positioned to control the weight of the tree and positively control the direction of fall.
- 28.9 When using rigging to pull "leaners" over center, mechanical methods will be employed and sized appropriate to the weight and position of the tree. Rigging used for this methodology must be approved by the manufacturer for identified configurations.
- 28.10 At winds greater than 20 mph, the Operator, Rigger, and Lift Supervisor will cease all operations, evaluate conditions and determine if the lift will proceed. Determination to proceed will be documented in the Operator's logbook.

29. Spill Kits:

- 29.1 All Contractor and Subcontractor work crews will have spill kits readily available during construction activities. Spill kits will be stocked and sized appropriately for types of spills that could occur.
- 29.2 The Contractor will provide training to employees on the type/sort of hazards employees might be required to address. The training program will address competencies required for different levels of response.

30. Fall Protection:

- 30.1 Fall protection requirements are applicable for Contractors working at elevated locations more than 4 feet above a lower level except on portable ladders or fixed ladders less than 24 feet. Fall protection equipment will meet all applicable consensus standards. Employees exposed to fall hazards will be protected from falling to a lower level by the use of standard guardrails, handrails, work platforms, temporary floors, safety nets, engineered fall protection systems, personal fall arrest systems, or the equivalent.

- 30.2 Contractors working in an aerial lift or on platforms supported by lift equipment will wear approved Personal Protective Equipment (PPE) consisting of a full body harness and attached with either a self-retracting device or shock-absorbing lanyard.
- 30.3 During work activities above 4 feet that requires fall protection PPE, Contractors will ensure that at least 2 qualified workers are present at the work site for rescue purposes. Contractors will contact local first responder agencies to assure that qualified personnel and necessary equipment is available to respond to the project site to aid in fall protection rescue efforts. If local first responder agencies are unable to provide adequate fall protection rescue personnel and/or equipment, the Contractor will include a formal and Site Specific Fall Protection Rescue Plan as a part of the submission of the project SP.
- 30.4 Contractors working at elevated locations more than 4 feet above the ground and utilizing fall protection PPE will wear an approved climbing style helmet attached with chinstrap.
- 30.5 Contractors performing work at a height of 10 feet or greater will have a written, Site Specific Fall Protection/Rescue Work Plan, reviewed by the BPA Safety Organization as part of their SP submittal, prior to the commencement of work.
- 30.6 Contractors will ensure that portable ladders are inspected and contain no defects, be adequately secured, extend at least 3 feet above any upper landing surface, and not be loaded past their manufacturer's rated load capacity.
- 30.7 Working Over or Near Water. Unless continuous fall protection is used without exception, where the danger of drowning exists; (e.g., rivers, piers, wharves, quay, walls, barges, watercraft, aerial lifts, crane-supported work platforms, etc.). Use barriers to separate the worker from water hazard OR provide U.S. Coast Guard approved personal flotation devices (PFD) and place ring buoys with at least 90 feet of line at each 200 feet of work area. Buoyant work vests or life preservers will be inspected for defects, which would alter their strength or buoyancy. At least one lifesaving skiff will be immediately available at locations where employees are working over or adjacent to water.

31. Fiber Optics:

- 31.1 Never look into the end of an optical fiber. The laser light that may be present is invisible and eye damage may occur.
- 31.2 When working with fiber optics, the use of personal protective equipment is required to prevent injury. Eye protection will be worn when splicing glass fiber. Care should be taken during the cleaving process to protect the eyes and the body from broken glass pieces.
- 31.3 Chemicals that are present in fiber or the chemical used to clean fiber may require the use of hand protection. Consult the Safety Data Sheet (SDS) for proper use of personal protective equipment. Reference BPA Work Standard BPA-WS-9-3, *Fiber Optics*, which is available upon request.

32. Fire Hazards:

- 32.1 Fire prevention and suppression will comply with project construction specification Section 01 35 27 – BPA Safety Requirements.
- 32.2 Flammable liquids within 70 feet of conductors energized at voltages of 345 kV and higher will not be transferred from one metal container to another unless the two have been electrically bonded together to eliminate arcing.

- 32.3 Metal safety cans are an approved container of not more than 5 gallons capacity, having a spring-closed lid and spout cover and so designed that it will safely relieve internal pressure when subjected to fire exposure. They are the preferred method for storing flammable and combustible liquids. Only plastic containers that are Underwriters Laboratory (UL) or Factory Mutual (FM) approved will be used. These approved plastic safety cans are made from a high-density polyethylene with steel fittings, usually stainless, that include leak proof closures, relief mechanisms and spark arrestors.
- 32.4 Fuel storage will not take place under or adjacent to energized lines or equipment.
- 32.5 The Contractor will be responsible for contacting the local jurisdiction having authority and being aware of and complying with any fire restrictions, shutdowns, or other special requirements.
- 32.6 The Contractor is responsible for carrying fire suppression tools and equipment as required by the authority having jurisdiction, and training workers in their use.
- 32.7 Welding, Cutting, Brazing and Grinding operations will comply with OSHA 1910.252 and/or any applicable Federal, State standard or regulation.
- 32.8 At least one portable fire extinguisher rated 20-B:C will be provided on all tank trucks or other vehicles used for transporting and/or dispensing flammable liquids.
- 32.9 Each service or refueling area will be provided with at least one fire extinguisher rated not less than 40-B:C and located so that an extinguisher will be within 100 ft. of each pump, dispenser, underground fill pipe opening, and lubrication or service area.

33. Hazard Communication:

- 33.1 The Contractor will supply workers with effective information and training regarding any hazardous chemicals used at the work site and will comply with OSHA 1910.1200, 1910 Subpart Z, and/or any applicable Federal, State standard or regulation.
- 33.2 The Contractor will develop a written Hazard Communication program when hazardous or toxic agents are present or procured, stored or used at the project. The Contractor will maintain any required Safety Data Sheets (SDS) at the work location and have them available to workers.
- 33.3 For emergency response purposes, approximate quantities that are onsite or will be on site at any given time will be provided for each material. A site map will be attached to the inventory showing/identifying where inventoried substances are stored.

34. Job Briefing:

- 34.1 As part of the development of their SP, the Contractor will conduct and document job briefings each morning with safety as an integral part of the briefing, and will provide copies of the daily job briefing and any other safety meeting notes to the COR or the onsite BPA Representative. The notes will at a minimum show the date, time, topics discussed, and attendees of each meeting, and will be retained for the duration of the warranty.
- 34.2 The job briefing will reflect all hazards and how they will be mitigated and controlled, as noted in the SP.

- 34.3 The person-in-charge of the job will conduct job briefings with all workers assigned to the job. Job briefings will be held at the work site with additional briefings conducted for late arriving workers, workers that were not present during the initial job briefing, and when work situations change that may pose different or additional hazards to workers. Workers working alone will ensure that their day's work is planned and performed as if a safety briefing covering the requirements was conducted. When more than one craft are working together, the person-in-charge of the job must be clearly established as part of the job briefing.
- 34.4 All job briefings must cover, at a minimum, the following subjects:
 - 34.4.1 Hazards associated with the job;
 - 34.4.2 Work procedures;
 - 34.4.3 Special precautions;
 - 34.4.4 Energy source controls;
 - 34.4.5 Personal protective equipment;
 - 34.4.6 Clearances, Hold Orders, and Work Permits;
 - 34.4.7 Emergency procedures/communications;
 - 34.4.8 Special permits (e.g., confined space; fall protection plans, etc.);
 - 34.4.9 Worker training and qualifications.

35. Lockout/Tagout (LOTO) – Control of Hazardous Energy:

- 35.1 The Contractor will communicate and familiarize their workers and affected BPA employees with their respective LOTO locks, tags, devices and procedures.
- 35.2 The Contractor will ensure that no workers are exposed to injury from the unexpected startup or release of stored energy systems.
- 35.3 Contractors performing work on machinery or equipment where such hazards may exist will develop a LOTO program in accordance with this section as well as the requirements of 29 CFR 1910.147, The Control of Hazardous Energy (Lockout/Tagout), ANSI Z244.1, Control of Hazardous Energy Lockout/Tagout and Alternative Methods, and ANSI A10.44, LOTO for Construction. This document will be submitted as part of their SP submittal to the BPA representative, for their review and acceptance.
- 35.4 The Contractor will supply all required locks, tags, and devices required for locking out and tagging the machinery or equipment to be worked on.

36. Medical Services and First Aid:

- 36.1 First aid kits will be accessible to all workers and protected from the weather. The individual contents of the first aid kits will be kept sterile. First aid kit locations will be clearly marked and distributed throughout the site(s).
- 36.2 The contents of first aid kits will be checked by the employer prior to their use on

site and at least every 3 months when work is in progress to ensure that they are complete, in good condition, and have not expired.

- 36.3 All employees who work where there is a first aid kit will receive training on the content and use of the first aid kit supplies.
- 36.4 The placement of Automatic External Defibrillators (AEDs) is optional but highly recommended. The placement of AEDs on the worksite will be preceded by an assessment of the time and distance to emergency medical services (EMS) and a justification for such equipment.
- 36.5 Workers required to use an AED will be trained on the proper use and functionality of the AED. All classes will contain a hands-on component and cannot be taken online. Training will be on the same model and manufacturer of AED available in the work area. The certificate(s) will state the date of issue and length of validity.

37. Personal Protective Equipment (PPE):

- 37.1 The Contractor will furnish all required safety and personal protective equipment. All persons on all projects will wear non-conductive hard hats meeting the requirements of OSHA/ANSI.
- 37.2 Yellow hard hats with company logo are restricted to workers who hold a BPA Qualified Electrical Employee Permit.
- 37.3 Qualified Line Clearance Tree Trimmers (QLCTT) will wear red hard hats.
- 37.4 All others will wear white hard hats.
- 37.5 Appropriate footwear that provides adequate support and protection to the foot, toes and ankles for the work being performed will be worn. Lace-up, over the ankle boots with rigid sole and heel meeting ASTM F2413 with an EH rating will be worn in all work areas where hard hats are required and other areas as determined by a Supervisor. Supervisors have the responsibility for ensuring that appropriate footwear is worn. Workers have the responsibility to wear appropriate footwear for the job.
- 37.6 While BPA's minimum qualifications for protective footwear are identified above, specialized footwear, in accordance with standard industry practice and appropriate for the work being performed, will be worn at all times while executing the work tasks requiring specialized Personal Protective Equipment (PPE). Supervisors and workers have the responsibility of ensuring appropriate footwear is worn.
- 37.7 The Contractor will ensure that workers operating All-Terrain Vehicles (ATVs) on BPA right of ways will be trained on the safe operation of the specific ATV being operated and that they wear a helmet and protective eyewear, as required. State ATV operator requirements in which the work is occurring must also be met.
- 37.8 All workers performing the following work, or working in the following areas, of a substation will wear dielectric boots:
 - 37.8.1 Contacting the ground grid;
 - 37.8.2 Work in areas with standing water above the yard rock;
 - 37.8.3 Work in areas without yard rock when subgrade is wet and muddy, or it is raining. Dielectric gloves are recommended if the ground grid will be repeatedly touched.
- 37.9 For PPE related to Arc Flash Hazards see Section 12, above.

38. Radio Frequency Exposure, for Personal Communication Systems:

38.1 Radio Frequency (RF) emissions can be harmful to workers within RF fields of high exposure levels. BPA has established a safe working distance of 5 feet in all directions around structure-mounted transmitting antennas, to keep workers outside the RF field. Workers may be closer than the minimum safe working distance for a brief period of time, such as while climbing past an energized transmitting antenna.

Workers may remain closer than the minimum safe working distance for extended periods of time only if using a personal RF Exposure Monitor, which alarms with respect to maximum permissible exposure levels. If the personal RF monitor signals an alarm for a level greater than the maximum permissible exposure level, the emitting antenna should be de-energized during the period of worker exposure, and in no case will the exposure exceed 6 minutes in any 15-minute period.

38.2 BPA structures at communications sites such as radio stations and substations may have antennas that may be energized without notice. A personal RF monitor will be worn at all times at these sites while working on the structure. Personnel should not assume that the area is without RF exposure. If the work required exceeds the maximum permissible exposure, the land mobile radios(s) and/or PCS/wireless equipment should be de-energized and tagged consistent with the Contractors' lockout/tagout procedures so that it cannot be energized while work is in progress.

38.3 The 5-foot rule stated here is based on a system-wide average for most PCS/Cellular, HF, VHF, UHF, 700 MHz, and 800 MHz antennas on BPA communications structures (transmission towers, communications towers, buildings, poles). The minimum safe working distance for these antennas may be greater than or less than 5 feet. Any antenna that requires a minimum safe working distance greater than 5 feet will have a warning sign posted to indicate the safe working distance.

38.4 At ground level, workers should be at a safe distance from BPA structure-mounted transmitting antennas. However, broadcast antennas, radar antennas, and paging system at foreign sites adjacent to BPA communications structures can emit RF energy that exceeds the maximum permissible exposure levels. For sites identified as having excessive exposure levels, a personal RF monitor must be worn at all times. If the personal RF monitor indicates excessive levels and work is thought to exceed 6 minutes in a 15-minute period, the worker will contact the foreign adjacent site owner and request a reduction in transmit power level while work is in progress.

38.5 Vehicle-mounted transmitting antennas have a safe working distance of 2 feet while transmitting. The exposed metal parts of a vehicle-mounted transmitting antenna will never be touched while transmitting as it will produce a painful burn on bare skin.

Reference: BPA Work Standard BPA-WS-11-5, Communication Antennas – *RF Exposure*, which is available upon request.

39. Toilet Facilities:

39.1 The Contractor will furnish an adequate number of portable toilets for their workers.

39.2 Where it is not practical to provide running water, hand sanitizers may be used as a substitute for running water. Hand sanitizers must contain at least 60% ethyl alcohol as its active ingredient and workers will be trained to properly use the sanitizer.

40. Traffic Control:

- 40.1 The Contractor is responsible for ensuring that all traffic control measures required by Federal, State, and local laws and regulations are followed and that they conform to the Federal Highway Administration, Manual on Uniform Traffic Control Devices MUTCD (latest edition).
- 40.2 All flaggers will have in their possession an appropriate State certification card attesting to having completed the required training.
- 40.3 High-visibility apparel meeting, at a minimum ANSI/ISEA 107, Class 3, will be worn by all flaggers.

41. Trenching and Excavation:

- 41.1 Excavation and trenching must conform to all applicable Federal and State trenching, shoring and excavation safety standards. The excavation/trenching plan will be prepared by the Competent Person (CP) for excavation or a Registered Professional Engineer (RPE), submitted and accepted by the BPA assigned Safety Manager prior to beginning operations.
- 41.2 The Contractor will have a competent person on site that is capable of identifying existing and predictable hazards, and has the authority to take prompt corrective action.
- 41.3 Prior to entry into excavations 4 feet or more in depth an Excavation/Trenching Permit completed by the competent person and approved by the Supervisor will be posted on site. The Contractor will use BPA form F 5480.28e, *Excavation/Trenching Permit*, or an equivalent form approved by the BPA.
- 41.4 Excavations 4 feet or more in depth will not be entered unless sloped to the appropriate angle of repose, shored or shielded.
- 41.5 The Contractor is responsible for obtaining all necessary locates before any work commences. The Contractor will follow appropriate digging recommendations, which may include hand digging (potholing) a test hole to expose underground utilities, including the ground grid to determine location before digging with power equipment.

42. Welding:

- 42.1 The welding ground lead must be placed on the equipment being welded to assure a solid return path to the welding machine. Do not use ground grid risers for welding ground return paths to avoid causing stray currents entering the ground grid.
- 42.2 The welder on the job will notify all workers that could be exposed to hazards involved in an arc welding process to remain in the clear or be isolated.
- 42.3 Workers will not contact pieces being welded unless the pieces are electrically bonded together and a solid ground path to the welding machine is used.

43. Work Permits:

- 43.1 A Work Permit is dispatcher permission to work on power system equipment or circuits that do not require a Clearance or Hold Order. A Work Permit does not provide electrical contact protection for personnel or permit the violation of applicable Minimum Approach Distances.

- 43.2 Work Permits are required for all work on power system equipment, including fiber optic work that may affect the operation or protection of the power system.
- 43.3 Work Permits will only be issued to Contractors who hold a Restricted Electrical Worker Permit, or an Electrical Worker Permit, and are on the Approved Contractor Energized Facility Work Permit Holders list. BPA Work Standard WS-3-9, *Approving Contractors to Hold Work Permits*, provides the detailed information to complete the process. It is available upon request.
- 43.4 Work Permit Responsibilities. The person receiving the Work Permit:
- 43.4.1 Will know the exact name of the line or equipment included in the Work Permit, the time of issue of the Work Permit, and the name of the Dispatcher who issued the Work Permit.
 - 43.4.2 Will verbally convey this information to all persons working under the Work Permit.
 - 43.4.3 For work in substations, will remain at the substation while work requiring the Work Permit is being completed. If the purpose of the Work Permit is for end-to-end terminal work, such as for relay or communications equipment, the holder of the Work Permit will be at one of the terminals where work is occurring under the Work Permit.
 - 43.4.4 For work on transmission lines, will remain at the location where the work requiring the Work Permit is located.
 - 43.4.5 Will maintain a method of communication with the Dispatcher for the duration of the Work Permit. To ensure the integrity of process is maintained, communications will consider the following format:
 - 43.4.5.1 When communicating about Work Permits and Trouble Reporting, personnel will identify themselves to each other and be confident they know with whom they are talking.
 - 43.4.5.2 Conversations must be clear, concise, and will be conducted in a business-like manner. Conversations may be held through a third party when necessary.
 - 43.4.5.3 Personnel must exchange information using proper line and equipment terminology so that all parties have a clear understanding of the work to be performed.
- 43.5 Work Permit Application, Issuance, and Release:
- 43.5.1 The application for a Work Permit is coordinated with the BPA COR or BPA Field Representative with as much advance notice as possible. The following information will be provided for the Work Permit request:
 - 43.5.1.1 The correct name designation of the line or equipment requiring a Work Permit.
 - 43.5.1.2 The date and time the work requiring the Work Permit is scheduled to begin.
 - 43.5.1.3 The anticipated duration of the Work Permit.
 - 43.5.1.4 The name of the person who will take the Work Permit.
 - 43.5.1.5 A description of the work to be performed.
 - 43.5.1.6 The means of communication with the Work Permit Holder while the work is performed.

Note - Work Permits are issued and released on a daily basis – not continuous.

43.6 Issuance of Work Permits:

- 43.6.1 All Work Permits on the BPA power system will be issued by a BPA Dispatcher.
- 43.6.2 When issuing a Work Permit, the Dispatcher will state clearly to the person receiving the Work Permit:
 - 41.6.2.1 The name of the person receiving the Work Permit;
 - 41.6.2.2 The exact name of the line or equipment included in the Work Permit;
- 43.6.3 When receiving a Work Permit, the recipient of the Work Permit will repeat back to the Dispatcher:
 - 43.6.3.1 The name of the person receiving the Work Permit;
 - 43.6.3.2 The exact name of the line or equipment included in the Work Permit.

43.7 Releasing Work Permits:

- 43.7.1 All Work Permits must be promptly released to a BPA Dispatcher, when the work is complete or at the end of each work day.
 - 43.7.2 When a Work Permit is released the Dispatcher must be informed of the status of the equipment, i.e. the equipment is ready for service or the equipment will remain out of service.
 - 43.7.3 Upon acceptance of the release the Work Permit no longer exists.
 - 43.7.4 If the holder of the Work Permit is unable to release a Work Permit, the immediate Supervisor of that Work Permit Holder will communicate with the crew, release the Work Permit, and designate the person who will receive the new Work Permit.
- 43.8 Task Briefings. The Work Permit Holder will hold task briefings with all persons working under the Work Permit immediately prior to starting work covered under a Work Permit.
- 43.8.1 The briefing will include a review of:
 - 43.8.1.1 The scope and equipment covered in the Work Permit;
 - 43.8.1.2 Any specific details or work procedures associated with the work.
 - 43.8.2 The briefing should be documented and available for review by the COR or BPA Field Representative. The briefing notes should identify:
 - 43.8.2.1 Work Permit Holder;
 - 43.8.2.2 When the Work Permit was issued, and who issued it;
 - 43.8.2.3 Steps taken to identify the work area;
 - 43.8.2.4 Work being performed;
 - 43.8.2.5 Work that cannot be performed.

CHAPTER 2 – WORK IN SUBSTATIONS AND RELATED BPA FACILITIES

In addition to the requirements of Chapter 1, the following specific work requirements apply.

1. Minimum Qualifications for Qualified Electrical Worker (QEW):

The Contractor will ensure that all QEWs meet the following:

- 1.1 Documented Department of Labor (DOL) approved apprenticeship certificate, an Electrical Engineering degree, or an engineering degree in a related field (e.g., field engineer, commissioning and testing field engineer).
 - 1.1.1 Relevant training consisting of on-the-job and electrical theory;
 - 1.1.2 Qualified by experience or training to perform the specific type of work outlined in this contract;
 - 1.1.3 Completed in the past 2 years a grounding/bonding training course that includes appropriate grounding techniques, step and touch, and the creation of an equipotential zone;
 - 1.1.4 Have a current First Aid/CPR/AED card;
 - 1.1.5 Be fluent in the English language as well as the language(s) of Contractor workers under their Supervision;
 - 1.1.6 The Contractor will make available, upon request by the Contracting Officer or authorized representative of the Contracting Officer, documentation verifying the QEWs qualifications.

2. Requirements for Work on Normally Energized Lines and Equipment that are Separated by an Isolating Device Under the Provisions of a Work Clearance:

Note: Contractors are not allowed to hold a Clearance for work on equipment in a BPA Substation.

- 2.1 BPA electrical workers will clear and tag the equipment. A Clearance will then be issued to the BPA Clearance Holder. The BPA Clearance Holder will:
 - 2.1.1 Know the limits of the Clearance, the facilities included, and the status of ground switches within the Clearance. The Clearance Holder will also know the Clearance number, the time of issue and the name of the Dispatcher or Substation Operator who issued the Clearance;
 - 2.1.2 Know the name(s) of other Clearance Holders and the type of work they are accomplishing when more than one Clearance is issued on the same line or equipment;
 - 2.1.3 Review the Contractor's grounding plan in the SP with the crew foreman and either concur with the plan or modify, in consultation with the crew foreman, as required;
 - 2.1.4 Direct the installation of barriers or guards as necessary to prevent accidental contact with adjacent energized facilities before allowing work to begin in areas where such hazards exist;
 - 2.1.5 Direct the utilization of Safety Watchers as required;
 - 2.1.6 Convey this information to all persons working under that Clearance before work begins. In addition, any specific hazards associated with the work will be pointed out;

2.1.7 Remain at the job site while work or testing is being performed on equipment under a Clearance. "At the job site" means at the location where the work is being performed. The holder of a Clearance may place or respond to telephone or radio calls, perform paperwork incidental to the job at hand, use available restroom facilities, or perform other minor tasks incidental to the work, and still be considered "at the Job Site".

2.2 The Contractor will:

2.2.1 Know the limits of the Clearance, the facilities included, and the status of ground switches within the Clearance. The Contractor will verbally acknowledge to the Clearance Holder, the Clearance number, the time of issue, and the name of the Dispatcher or Substation Operator who issued the Clearance. In addition, they will understand any specific hazards that may be associated with the work;

2.2.2 Know that all low-voltage isolating device air circuit breakers (ACB) that are the limits of the Clearance have been tested open before touching or coming within the applicable Minimum Approach Distance of normally energized electrical parts;

2.2.3 Install PPGs as described in the SP or as modified by the BPA Clearance holder in consultation with the crew foreman;

2.2.4 Install barriers and guards as directed by the Clearance Holder;

2.2.5 Utilize a Safety Watcher when one is required;

2.2.6 Cease work on equipment under a Clearance when the Clearance Holder is not at the job site.

2.3 When Clearances Are Not Required:

2.3.1 New Construction: During the construction of new facilities, a Clearance is not required if power system equipment is not in place to provide a connection to the power system by the closing of an isolating device.

2.3.2 Return to Construction Status. Reconductoring of existing lines, removal and/or replacement of facilities, or for other similar type work. A Clearance is not required for this work providing that a letter requesting the work to be accomplished without a Clearance has been submitted to and approved in writing by the Manager of the Dispatching Office having jurisdiction over the equipment. Under the protection of a Clearance, the facilities will be separated from all possible sources of energization by the physical removal of the predefined circuit parts such as risers, wire spans, bus work, or other conductor, which completely separates the equipment from the power system. Reference BPA Work Standard BPA-WS-3-3, *Work on Equipment Separated from the Power System*, which is available upon request.

3. Ground Grid – Substations:

3.1 Workers will not "come between" cut sections of substation ground grids. Separated sections of the grid will only be connected after first being jumpered using hot methods by Qualified Electrical Workers under the supervision of the COR or the onsite BPA Representative.

- 3.2 All work will take place entirely on or entirely off the ground grid to avoid the hazards of transferred potential. If it is unavoidable for a work procedure to take place simultaneously on and off the grid (such as using a crane, pulling cable and directional boring), the COR or the onsite BPA Representative must be consulted for specific methods that would minimize the hazard.

Reference: See Substation Maintenance Standards SM-STD-13-1-5, *Precautions when Contacting the Substation Ground Grid or When Excavating*, and SM-STD-13-1-15, *Grounding Work Equipment & Vehicles in Substations*, which are available upon request.

- 3.3 For worker protection, the local BPA Substation Operator will be notified whenever any work is being performed on the ground grid.

4. Switches, Isolating Devices, Energized, Restrictions On:

- 4.1 Work will not be performed on one part of a high voltage switch or disconnect if the remainder of the switch or disconnect is energized unless approved barriers are installed. This does not prohibit connecting or disconnecting a bus or line to the de-energized end of a switch or disconnect, under the provisions of a Clearance, if the Minimum Approach Distance MAD not violated. In both cases, precautions must be taken to assure that the switch cannot be operated until all work is completed.

5. Coupling Capacitors and Bushing Potential Devices:

- 5.1 Work in the base units of coupling capacitors and bushing potential devices, other than tuning or voltage adjustment will be performed under the protection of a Clearance as outlined in BPA Work Standard BPA-WS-9-7, *Bushing PDs, Coupling Caps & Line Tuning Units*, which is available upon request.

6. Current Transformer (CT) Secondary:

- 6.1 The CT secondary circuit will not be opened while the primary is energized, due to the possible development of a high secondary voltage.
- 6.2 When work is to be performed on CT circuits that are normally in service, the Test and Energization Engineer (T&E) or BPA System Protection and Control (SPC) employee will lead the job briefing and approve any wiring work, including shorting, lifting, or landing wiring on CT terminal blocks.
- 6.3 Only Qualified Electrical Workers who have completed BPA's CT Safety Training within the last 3 years will perform work on CT secondary circuits which are normally in service.
- 6.4 All work will be performed in accordance with BPA Work Standard BPA-WS-9-12, *Current Transformer Secondary Circuits*, which is available upon request.

CHAPTER 3 – WORK ON BPA RIGHT-OF-WAYS AND TOWERS

In addition to the requirements of Chapter 1, the following specific work requirements apply.

1. Minimum Qualifications for Qualified Electrical Line Worker (QELW):

The Contractor will ensure that all QELWs meet the following:

- 1.1 Documented Department of Labor (DOL) approved apprenticeship certificate, an Electrical Engineering degree, or equivalent. Related training is a course of study, covering the theoretical aspects of the trade, which may be accomplished by correspondence or classroom instruction or a combination of correspondence and classroom instruction.
 - 1.1.1 Demonstrated proficiency with recent experience installing, maintaining, erecting and/or repairing power line structures, lines and equipment operating at voltages of 12.5 kV and/or higher. Line workers will be qualified by experience or training to perform the specific type of work outlined in this contract. Line workers working on BPA transmission lines rated at 115 kV or above will have sufficient experience and training to understand and safely work in proximity to the hazards posed by high voltage transmission lines;
 - 1.1.2 QELWs certified to hold a BPA Work Clearance will have a demonstrated work history of successfully working under at least three Clearances on the BPA or an equivalent power system. At the discretion of the COR, documented training may be substituted for this requirement;
 - 1.1.3 Will have completed in the past 2 years a grounding/bonding training course that includes appropriate grounding techniques, step and touch, and the creation of an equipotential zone;
 - 1.1.4 Will have a current First Aid/CPR/AED card;
 - 1.1.5 Will be fluent in the English language as well as the language(s) of Contractor workers under their Supervision;
 - 1.1.6 The Contractor will make available, upon request by the Contracting Officer or authorized representative of the Contracting Officer, documentation verifying the QELWs qualifications.

2. Minimum Crew Size:

- 2.1 When climbing structures, all work crews will have a minimum of 1 Qualified Electrical Line Worker and another electrical worker (electrical apprentice or journey-level worker in training) who has been approved by both the Contractor's personnel responsible for directing the work task and the qualified line worker involved.
- 2.2 The minimum crew for installing PPGs will consist of 2 Qualified Electrical Line Workers, or one Qualified Electrical Line Worker and an electrical worker (electrical apprentice or journey-level worker in training) who has been approved by both the Contractor's personnel responsible for directing the work task and the Qualified Electrical Line Worker involved. When working on line structures, the required electrical workers must be in the structure and be assisted by adequate help on the ground.

- 2.2.1 When applying PPGs on transmission lines, the required electrical workers will be in the structure and/or an aerial lift device and be assisted by adequate help on the ground. These required electrical workers will work closely together observing each other testing for voltage and applying PPGs. Additional PPG sets may be installed on the same circuit and all sets may be removed by one Qualified Electrical Worker and one other worker;
- 2.2.2 Additional PPG sets may be installed on the same circuit and all sets may be removed by 1 qualified line worker and one other worker.
- 2.3 All other electrical work crews will have a minimum ratio of one Qualified Electrical Line Worker to one non-qualified worker. Crews not performing electrical work or aerial work (e.g., road crews) need not comply with this requirement.
- 2.4 A crew is defined as a group of workers performing a task at the same work location. A work location is defined as a specific tower site or conductor span between towers.

3. Requirements for Work on Lines Physically Separated from the BPA System, Including New Construction and Return to Construction Status:

- 3.1 When Clearances Are Not Required:
 - 3.1.1 New Construction: During the construction of new facilities, a Clearance is not required if power system equipment is not in place to provide a connection to the power system by the closing of an isolating device.
 - 3.1.2 Return to Construction Status: Reconductoring of existing lines, removal and/or replacement of facilities, or for other similar type work. A Clearance is not required for this work providing that a letter requesting the work to be accomplished without a Clearance has been submitted to and approved in writing by the Manager of the Dispatching Office having jurisdiction over the equipment. Under the protection of a Clearance, the facilities will be separated from all possible sources of energization by the physical removal of the predefined circuit parts such as risers, wire spans, bus work, or other conductor, which completely separates the equipment from the power system. Reference BPA Work Standard BPA-WS-3-3, *Work on Equipment Separated from the Power System*, which is available upon request.
- 3.2 The Contractor will not perform any work on energized BPA high voltage conductors or equipment and will not come within the MAD of energized lines or equipment specified in the applicable tables in Chapter 1.
- 3.3 All conductors and equipment will be treated as energized until a Letter of Return to Construction Status has been issued, and it has been tested and grounded with portable protective grounds. No worker or equipment will come within the MAD in the tables in Chapter 1 unless these provisions are met.
- 3.4 De-energized conductors and equipment, which are to be grounded, will first be tested for voltage using approved methods.
- 3.5 A determination will be made by the Contractor to ensure that hazardous step and touch voltages are not present when grounding lines for worker protection.
- 3.6 New lines or equipment may be considered de-energized and worked as such where:
 - 3.6.1 The lines or equipment are grounded, or

- 3.6.2 The hazard of induced voltages is not present, and adequate clearances or other means are implemented to prevent contact with energized lines or equipment and the new lines or equipment.

4. Requirements for Work on Normally Energized Lines and Equipment that are Separated by an Isolating Device Under the Provisions of a Work Clearance:

- 4.1 The Contractor will not perform any work on any energized BPA high voltage conductors or equipment and will not come within the MAD of energized lines or equipment specified in the applicable MAD tables in Chapter 1.
- 4.2 A Contractor will only perform work on normally energized BPA transmission lines under the protection of a Work Clearance. However, a Contractor may request, as an extra layer of protection, a Hold Order for work in proximity to energized lines and equipment when there is no intent or expectation that the MAD will be violated.
 - 4.2.1 Contractor Clearance Holder: All work carried out by a Contractor under a Work Clearance or Hold Order held by a Contract worker will be governed by the Transmission Line Maintenance Standard TLM-STD-3-1-14, *Contractor Clearance, Hold Order, and Work Permit Procedure* and BPA, Clearances on Line Sections. The BPA Dispatcher will have full authority to deny issuance of a Clearance or Hold Order to any Contract worker who, in the Dispatcher's opinion, has not adequately met or performed all the requirements contained in these documents. The Contractor accepts full responsibility for the failure of its Clearance Holder to faithfully and accurately perform all the requirements stated therein or if the Clearance Holder is removed for cause under the provisions of this document. Multiple Clearance Holders may be required on the same project, depending on the situation. This will be determined by BPA on a case-by-case basis;
 - 4.2.2 Workers will be familiar with, know, and understand their responsibilities when working under a Clearance or Hold Order in accordance with the "Contractor Clearance, Hold Order, and Work Permit Procedure."
- 4.3 Contractor Clearances taken on the BPA system, or on foreign utility lines and equipment, to facilitate the construction of BPA transmission lines will be accomplished in accordance with the documents titled "Contractor Clearance, Hold Order, and Work Permit Procedure", and BPA TLM-STD-3-1-14, *Clearances on Line Sections*, which is available upon request.
- 4.4 Clearance Holder Certification:
 - 4.4.1 The Contractor will submit the resumes, including work experience and training history, of a minimum of two qualified line workers proposed to be certified as Clearance Holders to the CO or COR. Qualified line workers must meet the minimum qualifications identified previously in this clause.
 - 4.4.2 The CO or COR will schedule the training and written exam and notify the Contractor of the time and date. Training and written examination will require approximately 8 hours to complete and may be held at various locations in the BPA system.

- 4.4.3 A Contractor's Clearance certification expires on January 31st of each year regardless of when the certification was originally granted. Contractors will immediately notify BPA's Substation Operations Group when a worker that holds a current Clearance certification is no longer employed by that Contractor. The Substation Operations Group will deactivate the workers Clearance certification. If the individual is rehired by a Contractor doing work for BPA, the workers Clearance certification may be reactivated at the request of the Contractor provided the request is made within the present Clearance certification cycle.
- 4.5 Clearance Holder Responsibilities:
 - 4.5.1 Prior to the issuance of a Clearance by BPA, the Clearance Holder will request and receive a copy of the one-line diagram showing the equipment on which the Clearance will be issued;
 - 4.5.2 The Clearance Holder will hold a detailed daily job briefing and hazard analysis for each crew working under the provisions of their Work Clearance or Hold Order. Any time conditions change, a new job briefing must be held with all affected crew members;
 - 4.5.3 The Clearance Holder will remain at the job site while work or testing is being performed on equipment under a Clearance. Where the work requires workers at more than one location, the holder of the Clearance is considered to be "At the Job Site" when with a group of workers or traveling between groups of workers, provided that radio or cell phone contact can be maintained with the Dispatcher and all groups of workers.
- 4.6 Concurrent Clearances occur when 2 or more Qualified Electrical Workers are issued clearances with the same clearance limits on a transmission line and/or its terminal equipment. This could include contract electrical crews working in conjunction with BPA electrical crews. The safety of BPA employees and Contractors must be of high priority during these times of integrated work and outages. When a contract requires Concurrent Clearances, the following BPA Work Standards will be included in Contract Documents and the procedures will be followed:
 - 4.6.1 BPA-WS-6-3, *Grounding Policy*;
 - 4.6.2 BPA-WS-6-7, *Multiple Clearance Hazards*;
 - 4.6.3 BPA-WS-10-14, *Communications during Concurrent Work Clearances with Contractors*.
- 4.7 Workers will cease work on equipment under a Clearance when the Clearance Holder is not at the job site.
- 4.8 BPA electrical workers will clear and tag the equipment. The Contractor will then be issued a Clearance by a Dispatcher or other authorized employee and, for the protection of its workers, properly install portable protective grounds at each work site.
 - 4.8.1 The Clearance Holder will identify all parts of the protective grounding circuit prior to the installation of portable protective grounds to ensure that a thorough understanding of the specific grounding circuit exists by all crew members prior to the start of work;
 - 4.8.2 A visible AC three-phase short and ground will be applied at each work site before any worker or equipment comes within the MAD of any de-energized line (as specified in MAD tables in Chapter 1 as applicable);

- 4.8.3 A work site is defined as each specific location where a task is being performed. PPGs will be installed as close to the work being performed as practical, and in such a manner as not to be disturbed during the course of the work. Care will be taken to ensure that PPGs are not placed where they may be inadvertently knocked off or damaged by the work process;
- 4.8.4 Any reference to PPGs will mean an adequate number of 2/0 copper ground leads or equivalent to effect, and maintain at all times, a visible three-phase short and ground on the AC circuit. Visible short-circuiting may be accomplished through conductive parts of equal current carrying capacity as the PPGs require, but will not be effected through a ground grid or other concealed conductors. All PPGs will be installed and removed with approved live-line tools.
- 4.9 Identification of PPGs: The Contractor will employ an adequate PPG identification and inventory system to ensure that the location and status of each identified applied PPG is positively accounted for and will inform and give positive and documented assurance to the Clearance Holder and to the BPA COR or the onsite BPA Representative of the status and location of each inventoried PPG before releasing any Clearance.
- 4.10 PPGs for each Clearance: Before workers or equipment contact or come within the MAD of a circuit, separate grounds will be installed for each Clearance issued. When grounding overhead transmission lines grounding procedures and measuring of step-and-touch voltages will be done in accordance with BPA Transmission Line Maintenance Standard TLM-STD-1-1-4, *Grounding BPA Transmission Lines, Equipment and Structures*, which is available upon request.
- 4.11 Ground Switches:
 - 4.11.1 The Clearance Holder is responsible for requesting the status of ground switches from the BPA Dispatcher and for ensuring that the ground switch position does not contribute to hazardous voltage conditions;
 - 4.11.2 At no time will a ground switch be considered a substitute for PPGs.
- 4.12 All projects restricted solely to pole and arm replacement (no conductor is being moved or replaced) will be subject to the grounding provisions contained in this section and will require the installation of an AC three-phase short and ground at each work location for worker protection.

5. Hand Lines and Rope Used in Energized Corridors:

- 5.1 The Contractor will make every effort to ensure that hand lines and other rope used in energized corridors are maintained in as dry and clean a condition as possible in order to maintain a high resistance, dielectric condition. Hand lines and ropes will not be left in work positions overnight.

6. Proximity of Equipment, Machinery, and Vehicles to Transmission Line Structures:

- 6.1 Equipment, machinery, and vehicles traveling on BPA's right-of-way will follow the MAD, Table 1, for any BPA transmission line structure or guy wires unless:
 - 6.1.1 Guy wires have been flagged before work commences;
 - 6.1.2 Spotters are used to ensure safe work distances from structures.

7. Counterpoise:

- 7.1 There may be buried counterpoise (a mini-ground mat) associated with the structures, and the Contractor will avoid cutting or damaging the counterpoise. Counterpoise may extend the full width of the ROW and hundreds of feet in any direction from the structures. Locates may be required to determine extents.
- 7.2 If the counterpoise is compromised in any way immediately notify the COR and onsite BPA Representative.

8. Stringing or Removing Conductor:

- 8.1 Prior to stringing operations a job briefing will be held setting forth the plan of operation and specifying the type of equipment to be used and portable protective grounding procedures to be followed.
- 8.2 All pulling and tensioning equipment will be isolated, insulated, or effectively grounded.
- 8.3 During stringing operations, each bare conductor, sub-conductor, and overhead ground conductor will be grounded at the first tower adjacent to both the tensioning and pulling setups.
 - 8.3.1 These grounds will be left in place until conductor installation is completed;
 - 8.3.2 Such grounds will be removed as the last phase of aerial cleanup;
 - 8.3.3 Grounds will be placed and removed with a live-line tool.
- 8.4 Each conductor, sub-conductor, and overhead ground conductor will be grounded at all dead-end or catch-off points. Work on dead-end towers will require grounding on all de-energized lines.
- 8.5 A ground will be located at each side and within 10 feet of working areas where conductors, sub-conductors, or overhead ground conductors are being spliced at ground level. The two ends to be spliced will be bonded to each other.
- 8.6 All conductors, sub-conductors, and overhead ground conductors will be bonded to the tower at any isolated tower where it may be necessary to complete work on the transmission line.
- 8.7 Grounds may be removed as soon as the work is completed: Provided that the line is not left open circuited at the isolated tower at which work is being completed. (Grounds on an isolated line section will not be removed until jumpers are closed.)
- 8.8 Contractors stringing over energized lines will use tension stringing methods, guards, barriers, and/or other methods to positively prevent accidental contact with those lines. Contractors will make arrangements to obtain either a Clearance or a Hold Order when crossing over or under any line energized in excess of 600 volts. Contract workers who are required to take Clearances or Hold Orders on foreign utility lines, or obtain a foreign utility Clearance or Hold Order through the BPA Dispatcher (as a result of a foreign utility's policy) for such proximity work must first obtain a BPA Term Contractor Certification. Qualified applicants must pass a test administered by BPA's Substation Operations Group.

CHAPTER 4 – COMMERCIAL AVIATION SERVICES (NON- TRANSPORTATION)

In addition to the requirements of Chapter 1, the following specific work requirements apply.

1. Commercial Aviation Services (CAS) General -- Applicable to ALL CAS Operations:

- 1.1 The Contractor has sole responsibility for the airworthiness, operation, and safety of the aircraft operations and the public during the conduct of operations.
- 1.2 An aircraft is defined by the FAA as a device that is used or intended to be used for flight in the air. A drone/UAS/UAV is classified as an aircraft by the FAA.
- 1.3 Small Unmanned Aircraft Systems (sUAS) (defined as those under 55 lbs) are the only type of unmanned system currently allowed to operate under contract at BPA.
- 1.4 Aircraft vendors performing work under this contract must comply with the applicable Federal Aviation Regulations reference Title 14 CFR, Chapter 1, 49 CFR, Chapter XII, and 49 CFR Subchapter C, and/or DOT Special Permit(s) or exemptions and must comply with the civil aircraft regulations applicable to the type of operations conducted while in service to the Bonneville Power Administration. BPA has made a declaration to the FAA that aircraft operations for BPA are civil aircraft and not public aircraft at any time while in service to BPA under this contract.
- 1.5 All CAS vendors must be vetted by the Department of Energy (DOE) through BPA's Aircraft Services prior to the performance of any work on BPA's power system or property.
 - 1.5.1 An initial assessment, and thereafter every 2 years if a continuing need exists, will be made by the Aircraft Service Manager, their designee or DOE aviation consultant to ensure that the Contractor meets the qualifications for this contract.
 - 1.5.2 The assessment will be conducted by Bonneville Aircraft Services, their designee, or the DOE aviation consultant. The CAS vendor must provide access to, as applicable, the Contractor's General Operations Manual, Rotorcraft Load Combination Manual, General Maintenance Manual, Safety Management System document, aircraft maintenance and inspection records, pilot training records, and key management personnel.
 - 1.5.3 The DOE Office of Aviation Management will accept Contractors, on a case-by-case basis, that have been approved by the Department of Defense (DOD) and/or other Executive Agencies. Requests for this alternate acceptance method must be made through BPA Aircraft Services.
 - 1.5.4 Some sUAS operators can be considered non-CAS operators (those operators that have been contracted to provide a deliverable to BPA and the means by which they chose to provide that deliverable is not reasonably determined to require a sUAS). For example, an excavator providing weekly progress calculations using a sUAS and software processing instead of a measuring tape and theodolite. These types of operations do not have to meet the vetting and quarterly reporting requirements of this section.
- 1.6 The Contractor must perform, and record, weight and balance calculations prior to flight to ensure that aircraft are within the manufacturers and FAA established weight and balance limitations for each operation, flight, or mission profile for which the aircraft are to be operated. Unless otherwise approved by the FAA, actual weights will be used for the weight and balance calculations.
- 1.7 The Contractor will only provide aircraft maintained, airworthy and safe for the intended operation in accordance with an FAA maintenance and inspection regulations 14 CFR Parts 21, 43, §91.409, 133 or the Contractor's FAA Part 133 Operations Specifications and/or 135, if Part 135 is applicable.

1.8 The Contractor is required to submit quarterly reports of flight hours, costs, and other relevant information to the Bonneville Aircraft Service's Manager or designee as required by Federal Management Regulation or successor regulation promulgated by Government Service Administration (GSA).

1.8.1 The report must include:

1.8.1.1 Agreement Start date;

1.8.1.2 Agreement End Date;

1.8.1.3 Aircraft Manufacturer;

1.8.1.4 Aircraft Model;

1.8.1.5 Vendor Name;

1.8.1.6 Vendor Location;

1.8.1.7 Registration #;

1.8.1.8 Costs. Flight Hours;

1.8.1.9 Mission Description.

The report dates are: January 15, April 15, July 15, and October 15.

Note: This reporting requirement is applicable to any aircraft operations by either the Contractor or their Subcontractor.

1.9 Contractors that operate under 14 CFR Part 135 will comply with the Pilot Records Improvement Act of 1996 (PRIA) and will have a DOT/FAA approved drug and alcohol program in place covering all pilots and ground support personnel. If an operator is conducting aerial work under 14 CFR Part 91 or only certified to operate under 14 CFR Part 133, then the company should have a company drug and alcohol program in place covering all pilots, mission crew and ground support personnel.

1.10 To mitigate the potential for mid-air collision with other BPA aircraft, when the aircraft operation requires flight within or along a BPA right-of-way the CAS Vendor must perform the following prior to flight. For sUAS operations see the sUAS Section of this chapter:

1.10.1 Contact Dittmer Dispatch at 360-418-2281 or 800-392-0816;

1.10.2 Provide the company name and aircraft registration number;

1.10.3 Purpose of flight (Transportation, aerial survey, power line patrol, etc.);

1.10.4 Departure location with estimated time of departure;

1.10.5 Destination.

1.10.6 Route of flight or name of power line (e.g. John Day – Grizzly #1 500 kV line);

1.10.7 Estimated time of arrival or completion of work;

1.10.8 Provide Contractor contact's name and phone number (must be available at all times during aircraft usage);

- 1.10.9 These requirements do not relieve the Contractor from their responsibility to adhere to the vendor's flight locating procedures.
- 1.11 Upon completion of flight:
 - 1.11.1 Contact Dittmer Dispatch at 360-418-2281 or 800-392-0816;
 - 1.11.2 Notify Dispatch that air operations are complete;
- 1.12 The Contractor should have implemented an Integrated Safety Management System, which is subject to review by Bonneville Aircraft Services;
- 1.13 The Contractor will notify immediately the Bonneville Aircraft Services' Manager/Director of Operations, or Chief Pilot or designee if while in service to BPA an aircraft accident, incident, or FAA violation occurs;
- 1.14 Aircraft equipped with position tracking devices will have the device functional during the times they are working for Bonneville, or on Bonneville property.

2. Airplane Services (Non-Transportation):

- 2.1 Airplane(s) supporting BPA construction or maintenance activities may be used for any of the following: aerial surveys, Light Detection and Ranging (LiDAR) data acquisition, and aerial photography. The personnel transported during these airplane operations must be essential to or directly associated with the aircraft operation.
- 2.2 These airplane operations are considered aerial work and performed under the provisions applicable to civil aircraft in accordance with 14 CFR Parts 21, 39, 43, 45, 47, 61, 91 and 119.
- 2.3 Aircraft Maintenance Programs:
 - 2.3.1 The Contractor must provide aircraft that have completed an annual inspection and been approved for return to service in accordance with 14 CFR Part 43, and the manufacturers approved inspection program or an FAA accepted/approved alternative method of inspection (e.g. AAIP);
 - 2.3.2 The Contractor must comply with the mandatory replacement times, inspection intervals, and related procedures specified in the manufacturer's maintenance manual or instructions for continued airworthiness applicable to the make and model of aircraft, OR
 - 2.3.3 Comply with the section or alternative inspection intervals and related procedures set forth in the operator's FAA approved maintenance program defined in 14 CFR Part 91.409 or if applicable the vendor's FAA Operations Specifications or International Aviation Authority's equivalent;
 - 2.3.4 Must follow Instructions for Continued Airworthiness for additional equipment and modifications to the aircraft;
 - 2.3.5 Must comply with all applicable Airworthiness Directives to the make and model of aircraft and engines, and propellers.

- 2.4 A flight and duty hours schedule meeting the following minimum requirements:
 - 2.4.1 Maximum flight time while performing aerial surveys will be limited to 8 hours in each 24 hour period; except that an exceedance of 8 hours flight time may be allowed by permission of the BPA Aircraft Services Manager to complete a specific mission or for an emergency flight;
 - 2.4.2 Each pilot will be provided one rest day 24 hours in every 7 day period or two rest days will be provided in every 14 day period;
 - 2.4.3 The pilot must have 10 hours of uninterrupted rest prior to initiating flight operations each workday while operating for BPA.
- 2.5 No vendor will operate an airplane, except when necessary for takeoff or landing, below the following altitudes:
 - 2.5.1 Anywhere: Any altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface;
 - 2.5.2 Over Congested Areas: Over any congested area of a city, town, or settlement, or over any open-air assembly of persons, an altitude of 1,000 feet above the highest obstacle within a horizontal radius of 2,000 feet of the aircraft;
 - 2.5.3 Over Other than Congested Areas: An altitude of 500 feet above the surface, except over open water or sparsely populated areas. In those cases, the aircraft may not be operated closer than 500 feet to any person, vessel, vehicle, or structure.
- 2.6 All CAS vendor airplane pilots must meet the following minimum qualifications:
 - 2.6.1 Possess a current FAA Airline Transport Pilot or Commercial Pilot Certificate with a single-engine land class with instrument rating or if applicable multi-engine land class with instrument rating;
 - 2.6.2 Possess a current FAA Class I or II Medical Certificate;
 - 2.6.3 Assigned as pilot-in-command under the Contractor's training program;
 - 2.6.4 Qualified and current under the Contractor's training program;
 - 2.6.5 Meets the proficiency requirements of FAA Regulations Part 61 and 91;
 - 2.6.6 Must have 200 hours in the category and class of aircraft being flown on the contract, and currency in the make and model being flown;
 - 2.6.7 Must be knowledgeable and familiar with guidance and hazards identified in the Helicopter Association International's Utilities, Patrol and Construction Guide, Chapters 1 – 7;
 - 2.6.8 Must have completed the CAS vendors FAA, International aviation authority equivalent approved initial, recurrent, or qualification-training program in the previous 12 months.

3. Helicopter Services – (Non-Transportation) General Requirements:

- 3.1 Aircraft vendors performing work under this contract must be certified under the applicable Federal Aviation Regulation reference 14 CFR Parts 119, 133 and/or 135 and comply with the vendor's FAA issued Part 133 and/or 135 Operation Specifications and FAA approved Rotorcraft Load Combination Flight Manuals and if applicable, the vendor's FAA accepted General Operations Manual.
- 3.2 Class B Human External Cargo (HEC) operations may be authorized by BPA's Aircraft Services Manager. The vendor must demonstrate through documentation the vendor's pilot(s) and workers are trained in these techniques and the aircraft equipment includes the use of a personal safety device (belly band) during these operations.
- 3.3 All CAS vendor helicopter pilots must meet the following minimum qualifications:
 - 3.3.1 Possess a current FAA Airline Transport Pilot or Commercial Pilot Certificate with a Rotorcraft/Helicopter Rating;
 - 3.3.2 Possess a current FAA Class I or II Medical Certificate.
 - 3.3.3 Assigned as pilot-in-command under the Contractor's FAA Regulations Part 91, 133 and/or 135 programs;
 - 3.3.4 Qualified and current under the Contractor's FAA Regulations Part 133 and/or 135 programs;
 - 3.3.5 Meets the proficiency requirements of FAA Regulations Part 61, 133 and/or 135;
 - 3.3.6 Must have 200 hours (or as required by the level of pilot certificate possessed) in the category and class of aircraft being flown on the contract, and currency in the make and model being flown;
 - 3.3.7 Must be knowledgeable and familiar with guidance and hazards identified in the Helicopter Association International's Utilities, Patrol and Construction Guide, Chapters 1 – 7;
 - 3.3.8 Should have attended a formal pilot training program (i.e. factory school such as Sikorsky, Bell, Eurocopter, McDonnell Douglas, etc.) for the model of aircraft being contracted or the Contractors approved FAR 135 training program;
 - 3.3.9 Must have completed the CAS vendors initial, recurrent or qualification-training program in the previous 12 months;
 - 3.3.10 Completed a "flying in the wire" environment training course within the preceding 24 months.
- 3.4 Helicopter Maintenance Programs
 - 3.4.1 The contract aircraft must comply the mandatory replacement times, inspection intervals, and related procedures specified in the manufacturer's maintenance manual or instructions for continued airworthiness applicable to the make and model of aircraft, OR
 - 3.4.2 Comply with the section or alternative inspection intervals and related procedures set forth in the operator's FAA approved maintenance program defined in 14 CFR Part 91.409 or if applicable the vendor's FAA Operations Specifications or International Aviation Authority's equivalent;

- 3.4.3 Must follow Instructions for Continued Airworthiness for additional equipment and modifications to the aircraft;
 - 3.4.4 Must comply with all applicable Airworthiness Directives to the make and model of aircraft and engines, and propellers;
 - 3.4.5 All maintenance must be recorded and been approved for return to service in accordance with 14 CFR Part 43 or the Contractor's FAA Approved Aircraft Inspection Program.
- 3.5 No vendor will operate a helicopter, except when necessary for takeoff or landing, below the following altitudes:
- 3.5.1 Anywhere: Any altitude allowing, if a power unit fails, an emergency landing without undue hazard to persons or property on the surface;
 - 3.5.2 External load operations over/within a congested area must have an FAA approved Congested Area Plan and a copy of that approved plan provided to BPA Aircraft Services.
- 3.6 A minimum ceiling and visibility will be established by the Contractor prior to initiating work that ensures safety during operations.
- 3.7 The vendor will ensure during all Class A and B external load operations that all workers can communicate either by radio or combination of hand and head signals during the external load operation. Loss of communication or lack of understanding between the pilot and workers as to the meaning of the hand and head signals will require the work to stop, until effective communications are re-established.

4. Helicopter Services – Aerial Survey Operations (Non-Electrical Contractors) (14 CFR Part 91):

- 4.1 Helicopter(s) supporting BPA construction or maintenance activities may be used for any of the following aerial survey operations: aerial photography, aerial surveys, or LiDAR data gathering. The personnel being transported during these rotorcraft operations must be essential to or directly associated with the aircraft operation.
- 4.2 The Contractor will only provide aircraft that are airworthy and safe for the intended operation and maintained under a FAA approved maintenance program defined in 14 CFR Part 91.409.
- 4.3 A flight and duty hours schedule meeting the following minimum requirements:
 - 4.3.1 Maximum flight time while performing aerial surveys will be limited to 8 hours in each 24 hour period; except an exceedance of 8 hours flight time for single pilot operations may be allowed by permission of BPA's Aircraft Services Manager to complete a specific mission or for an emergency flight;
 - 4.3.2 Each pilot will be provided one rest day in every 7 day period or two rest days will be provided in every 14 day period;
 - 4.3.3 The pilot must have 10 hours of uninterrupted rest prior to initiating flight operations each workday while operating for BPA.

5. Helicopter Services – Construction/Repair External Load Work (14 CFR Part 133):

- 5.1 Helicopters supporting BPA construction activities may be used for any of the following operations: rotorcraft load combinations including Class A, B or C loads. The personnel being transported during these rotorcraft load combinations must be essential to or directly associated with the aircraft and construction activities.
- 5.2 All rotorcraft external load operations must use a FAA approved load attachment means and the load carrying devices must meet industry standards.
- 5.3 All CAS vendor helicopter pilots must meet the following minimum qualifications in addition to those in Section 6.3, above:
 - 5.3.1 Must have 200 documented hours or more of vertical reference long line experience;
 - 5.3.2 Have received briefings or training on induced voltage hazards and other electrical hazards when working in a high voltage environment. The Contractor will provide to CAS for their review, upon request.
- 5.4 When helicopters are used to land tower sections or poles or cross arms, the following will apply:
 - 5.4.1 When landing a tower section load in an elevated position, a positive guide and positioning system will be used. Fabricated temporary load carrying devices must be designed and stamped by a Professional Engineer and will be of sufficient strength to safely support the specific load calculated for each load placement. Working Load Limits must be posted and visible on all lifting devices;
 - 5.4.2 Qualified workers may work under a hovering helicopter only to guide and temporarily secure loads, and to attach or disengage load lines;
 - 5.4.3 Loads will not be released until all tower legs, pole or cross arms are secured. Line workers will not belt off to unsecured tower sections or cross arms, and will not climb on to unsecured tower sections, pole, or cross arms;
 - 5.4.4 A maximum wind speed will be established by the Contractor and before the start of each project or lift, based on the effect of wind on the load and helicopter load capacity using standard formulae. Wind speed will be monitored and helicopter external load operations will cease when this limit is reached.
- 5.5 When performing external load work, the Contractor will submit for review by BPA's Aircraft Services at least 10 business days in advance of any proposed flight operations:
 - 5.5.1 A job specific JHA that will include hazard mitigations for the specific type of structures and work to be performed. When working in energized corridors or double circuit structures where a circuit remains energized, the JHA will detail specific procedures to assure that the applicable MAD is maintained by the helicopter and all attachments including a procedure to account for wind and other conditions;
 - 5.5.2 When a congested area plan is required by FAR 133 the Contractor will be responsible for preparation and submittal for approval to the FAA in advance of the lift. A copy will be available to BPA Aircraft Services at their request.
 - 5.5.3 A flight duty hours schedule meeting the following minimum requirements:

- 5.5.3.1 Maximum flight time while performing external load work will be limited to 6 hours in each 24 hour period for single pilot operations and 8 hours in each 24 hour period for aircraft requiring two pilots; except that a maximum of 8 hours flight time for single pilot operations may be allowed by permission of the Aircraft Services Manager to complete a specific mission or for an emergency flight;
 - 5.5.3.2 Each pilot will be provided one rest day in every 7 day period or two rest days will be provided in every 14 day period;
 - 5.5.3.3 The pilot must have 10 hours of uninterrupted rest prior to initiating flight operations each workday while operating for BPA.
- 5.6 When performing any Class C external load operations, including sock line pulls, the CAS vendor will ensure that:
- 5.6.1 All puller-tensioners used for pulling line with a helicopter will be used in the free-wheel mode only and will have a braking system adequate to achieve tension necessary to maintain needed control of the line.
 - 5.6.2 If a breakaway device is used in conjunction with a helicopter line pull, the CAS vendor will ensure that:
 - 5.6.2.1 All personnel remain in the clear to protect them from any hazard in the event of an inadvertent breakaway;
 - 5.6.2.2 The breakaway device is inspected before each pull. If damage is suspected the shear-pin must be replaced;
 - 5.6.2.3 Vendor's operating helicopters, such as the MD 500, 600 or 900 models, that are subject to fuel starvation due to a combination of bank and pitch angles experienced during Class C load operations will establish the following minimum fuel state for the pilot to stop the Class C operation. The limits are:
 - 5.6.2.3.1 150 pounds indicated on the aircraft's fuel gauge, as viewed in level flight, OR
 - 5.6.2.3.2 No less than 250 pounds (approximately 36 gallons) in the fuel tanks of the aircraft.
- 5.7 When performing any Class B external load operations, the CAS vendor will ensure that:
- 5.7.1 All long lines are non-conductive material and provide for an adequate clearance of 20 feet minimum from any infrastructure including towers, conductors, overhead ground wires or terrain features such as trees) for the operation being conducted.
 - 5.7.2 When external load operations are conducted in the wire environment involving an interaction with workers, except for tower or pole placements, an electrically activated remote hook should not be used, due to the potential of induced voltage to the worker that may result in injury.

6. Helicopter Services – Heli-Saw Operations:

- 6.1 Helicopter(s) supporting BPA vegetation management activities may be used for rotorcraft load combinations including Class B loads heli-saw or heli-tree trimming. The personnel being transported during these rotorcraft load combinations must be essential to or directly associated with the aircraft operation. All rotorcraft external load operations must use a FAA approved load attachment means and the load carrying devices must meet industry standards.
- 6.2 Comply with all applicable industry consensus safety standards relating to tree and brush cutting, pruning and trimming in proximity to energized high voltage lines.
- 6.3 All CAS vendor helicopter pilots conducting Heli-saw Operations must meet the following minimum qualifications in addition to those in Section 5.6:
 - 6.3.1 Must have 200 hours or more of vertical reference long line experience;
 - 6.3.2 Pilot-in-command must have 50 hours or more of aerial tree trimming experience with the make and model of aerial saw and helicopter within the previous 12 months.
- 6.4 Must have completed the CAS vendors FAA Regulations Part 133 initial, recurrent or qualification-training program in the previous 12 months.
- 6.5 A maximum wind speed will be established by the Contractor and before the start of each project or lift, based on the effect of wind on the load and helicopter load capacity using standard formulae. Wind speed will be monitored and helicopter-lifting operations will cease when this limit is reached.
- 6.6 When performing external load work, the Contractor will submit for review by BPA's Aircraft Services at least 10 business days in advance of any proposed flight operations:
 - 6.6.1 A job specific JHA that will include hazard mitigations for the specific type of structures and work to be performed. When working in energized corridors or double circuit structures where a circuit remains energized, the JHA will detail specific procedures to assure that the applicable MAD is maintained by the helicopter and all attachments including a procedure to account for wind and other conditions. (See ATTACHMENT 1 – Vegetation Management Job Hazard Analysis Submittal Instructions);
 - 6.6.2 When a congested area plan is required by FAR 133 the Contractor will be responsible for preparation and submittal for approval to the FAA in advance of the lift. A copy will be available to BPA's Aircraft Services Manager at their request.
 - 6.6.3 A flight and duty hours schedule meeting the following minimum requirements:
 - 6.6.3.1 Maximum flight time while performing aerial tree trimming external load work will be limited to 4 hours in each 24 hour period; except that a maximum of 6 hours flight time may be allowed by permission of the pilot and BPA Aircraft Services Manager to complete a specific mission;
 - 6.6.3.2 Maximum flight time including aerial tree trimming and ferry time is 8 flight hours in any 24 hour period;
 - 6.6.3.3 Each pilot will be provided one rest day in every 7 day period or 2 rest days will be provided in every 14 day period;
 - 6.6.3.4 The pilot must have 10 hours of uninterrupted rest prior to initiating flight operations each work day while operating for BPA.

6.7 Daily Job Briefings.

6.7.1 The Contractor will conduct a daily job briefing each morning with safety as an integral part of the briefing. The Contractor will maintain written documentation of daily job briefings using BPA form F 6410.32e, Contract Tailgate Meeting, or an equivalent form approved by BPA. These reports will be made available to BPA upon request. Each briefing will include the following:

- 6.7.1.1 Identify the line(s), the line voltage, and the appropriate MAD;
- 6.7.1.2 Identify the specific work methods that will be used to prevent a violation of the MAD by Contractor personnel on this project or release;
- 6.7.1.3 Identify the qualified personnel needed to safely complete the work;
- 6.7.1.4 Identify if a Clearance or Hold Order will be required to safely conduct the work on each specific release or project;
- 6.7.1.5 Identify any other hazards recognized by the Contractor after an inspection of the work area and how those hazards will be mitigated or controlled;
- 6.7.1.6 All required PPE will be reviewed.

6.8 Communications.

6.8.1 The Contractor will ensure that field supervision maintains a reliable method of emergency communications from all right-of-way work areas in the event of accident or illness.

6.8.2 The Contractor will ensure that field supervision maintains reliable communications at all times with the BPA Clearance Holder when working under the protection of a Clearance or Hold Order.

6.9 Minimum Approach Distance (MAD).

6.9.1 The Contractor will not perform any work on energized BPA high voltage conductors or equipment and will not come within the MAD of energized lines or equipment except under the provisions of a Work Clearance.

6.9.2 All conductors and equipment will be treated as energized unless the Contractor has been informed by a qualified BPA Clearance Holder at their work site that the line or equipment is de-energized and cleared for the Contractor to perform their work.

6.10 Minimum Approach Distance (MAD) Tables.

6.10.1 Refer and adhere to Table 1, MAD for vehicles and equipment.

7. Small Unmanned Aircraft Systems (sUAS) Services – Commercial Aviation Services (CAS) sUAS:

- 7.1 The Contractor will comply with all provisions and restrictions listed under CFR 14 Part 107.
- 7.2 In lieu of the mid-air mitigation prevention notification requirements identified in Section 1 of this Chapter, any SUAS, CAS, or Non-CAS (as described in Section 1 of this Chapter) operators must send a notification email to AircraftServicesUAS@bpa.gov at least 24 hours prior to conducting flight operations. The email will contain UAS FLIGHT NOTIFICATION in the subject line. The body of the email will contain; the contract name/number date(s) and time(s), or date/time range of the flight, purpose of the flight, location of the flight, company name, pilot name, and contact information in the body. All operations must remain outside of all MADs listed in this document.

CHAPTER 5 – VEGETATION MANAGEMENT

In addition to the requirements of Chapter 1, the following specific work requirements apply.

1. Daily Job Briefings:

- 1.1 The Contractor will conduct a daily job briefing each morning with safety as an integral part of the briefing. Job briefings will be held at the work site with additional briefings conducted when work situations changes, that may pose different or additional hazards to workers. The Contractor will maintain written documentation of daily job briefings using BPA form F 6410.32e, Contract Tailgate Meeting, or an equivalent form approved by BPA. These reports will be made available to BPA upon request. Each briefing will include the following:
 - 1.1.1 Identify the line(s), the line voltage, and the appropriate MAD;
 - 1.1.2 Identify any trees or brush on each project or release that if felled, could violate the MAD. Identify specific methods or tools that will be used to determine the potential for trees to fall within the MAD;
 - 1.1.3 Identify the specific work methods that will be used to prevent a violation of the MAD by Contractor workers on this project or release;
 - 1.1.4 Identify the qualified personnel needed to safely complete the work. All work conducted where an electrical hazard exists will be performed by qualified line clearance tree trimmers (QLCTT). Trainees will work under the direct supervision of a qualified line clearance tree trimmer;
 - 1.1.5 Identify if a Clearance or Hold Order will be required to safely conduct the work on each specific release or project;
 - 1.1.6 Identify any other hazards recognized by the Contractor after an inspection of the work area and how those hazards will be mitigated or controlled. Note: This inspection and hazard analysis must be done by a QLCTT when an electrical hazard exists;
 - 1.1.7 All required PPE will be reviewed.

2. Minimum Qualifications for Contractor Workers:

- 2.1 The pruning, trimming, repairing, maintaining, removing, treating, or clearing of trees or the cutting of brush that is within the MAD of electrical lines or equipment, specified in Table 2 below, will be performed by qualified line clearance tree trimmers.
- 2.2 The Contractor will ensure and be able to document that all QLCTTs working on this project or release meet the following minimum qualifications:
 - 2.2.1 Be certified as having completed a program consisting of both coursework and supervised on-the-job training under a recognized line clearance tree trimmer training program. This program will include at a minimum, the safety and training requirements outlined in OSHA 1910.269(r), ANSI Z133.1, *Safety Requirements for Arboricultural Operations*, and applicable State standards;
 - 2.2.2 Have completed at least 35 hours of requisite coursework and 2 years of supervised on-the-job training. This will include at least 6 months of documented experience cutting trees in proximity to energized high voltage lines operated at 50 kV and above. Documented experience will be made available to BPA upon request;

- 2.2.3 Have documented at least 1 year experience felling trees over 40 feet in height and greater than 8 inch diameter;
 - 2.2.4 Have documented experience felling trees greater than 20 inch in diameter;
 - 2.2.5 Have a current First Aid/CPR/AED card;
 - 2.2.6 Have fluency in the English language as well as the language(s) of Contractor workers under their supervision;
- 2.3 The Contractor will make available, upon request by the CO or authorized representative of the CO, documentation verifying worker qualifications.
- 2.4 Company Requirements:
- 2.4.1 Recordkeeping that is current for all employees, and includes all certifications, and training classes completed;
 - 2.4.2 Company manual with printed protocol for becoming a new hire, an apprentice, and a QLCTT journeyman;
 - 2.4.3 Annual internal safety training, 4 hour minimum required;
 - 2.4.4 Provide certificates and attestations to the BPA Contracting Officer annually, by January 1st of each year.

3. Minimum Crew Size:

- 3.1 When climbing structures, all work crews will have a minimum of one qualified line worker and another electrical worker (electrical apprentice or journey-level worker in training) who has been approved by both the Contractor's personnel responsible for directing the work task and the qualified line worker involved.
- 3.2 When climbing any tree where any portion of the tree, work tools, or equipment can enter Zone B, a second Qualified Worker/QLCTT equipped with a second set of climbing tools will be available on the job.
- 3.3 When a qualified worker is climbing a tree and working above 12 feet in height, a second Qualified Worker equipped with a second set of climbing tools will be available on the job that is trained and knowledgeable in rescue methods.
- 3.4 When sagging from a structure (by transit or other), all crews will consist of one worker on the ground qualified in climbing rescue or one of the following:
 - 3.4.1 A ground worker with radio contact with an onsite worker qualified in climbing rescue;
 - 3.4.2 Continuous radio contact with an onsite worker qualified in climbing rescue; or
 - 3.4.3 Visual contact with another worker qualified in climbing rescue.

4. Tree Falling:

- 4.1 The safety of the Contractor's workers and the public, and the integrity of the BPA system will be the Contractor's primary considerations when felling trees on energized right-of-ways. If a conflict or question arises over proper procedure, the safest, most stringent or most conservative interpretation will initially apply and the CO, COR or the onsite BPA Representative will be contacted to resolve the issue.
- 4.2 It is not acceptable to fall trees on BPA lines, equipment or structures whether they are energized or de-energized. All Zone A or B trees (See Section 5.12) will be directionally felled away from transmission lines and towers using methods appropriate to ensure the direction of fall.
- 4.3 Additional methods of mechanical control will be used to safely and positively control the direction of fall whenever:
 - 4.3.1 Lodged trees are encountered. Domino falling is not an adequate method of positive control;
 - 4.3.2 Wind or other conditions make directional falling dangerous or uncertain. Alternately, work will be temporarily suspended until conditions improve;
 - 4.3.3 Decay, rot or other weak spots are present or suspected;
 - 4.3.4 A clear falling path cannot be ensured.
- 4.4 A clear falling path will be assured or:
 - 4.4.1 The tree will be felled under the protection of a Clearance; or
 - 4.4.2 Positive control will be maintained by mechanical equipment; or
 - 4.4.3 The tree will be climbed and pieced out.
- 4.5 A safe work zone and escape path will be established before a tree is felled.
- 4.6 Sufficient hinge wood will be left to hold the tree to the stump during its fall and to guide the intended direction of fall.

5. Flammable Liquids:

- 5.1 Cutters will not carry portable containers containing flammable liquids on their person.
- 5.2 All storage, handling, and use of flammable liquids will be in accordance with NFPA 30, NFPA 30A, or other applicable standards under the supervision of a qualified person.
- 5.3 All sources of ignition will be prohibited in areas where flammable liquids are stored, handled, and processed. Suitable "NO SMOKING, MATCHES, or OPEN FLAME" signs will be posted in all such areas.

6. Communications:

- 6.1 The Contractor will ensure that field supervision maintains reliable communications at all times with the BPA Clearance Holder when working under the protection of a Clearance or Hold Order.

7. Minimum Approach Distance (MAD):

- 7.1 The Contractor will not perform any work on energized BPA high voltage conductors or equipment and will not come within the MAD of energized lines or equipment except under the provisions of a Work Clearance. In addition to these requirements, please refer to the MAD tables and information found in Chapter 1, Section 25.
- 7.2 All conductors and equipment will be treated as energized unless the Contractor has been informed by a qualified BPA Clearance Holder at their work site that the line or equipment is de-energized and cleared for the Contractor to perform their work.
- 7.3 When applying herbicide, all overspray will be considered conductive. Wind and other conditions will be taken into account to ensure that the MAD is not violated by overspray or equipment.

ATTACHMENT 1 – Vegetation Management Job Hazard Analysis Submittal Instructions

Job Hazard Analysis Submittal Instructions

Contractors Name: _____

Master Agreement Number: _____

All Contractors will consider the Job Hazards on any projects that they compete for. Once a Contractor is selected for award, the Contractor's Job Hazard Analysis (JHA) must be submitted for BPA's review, before the Contract or Master Agreement is issued. The list below is not all-inclusive, and Contractors are solely responsible for the safety practices of its workers. Please address ALL of the following items in your JHA that apply to the type of projects and the work you will perform.

1. Compliance with all Federal and State rules and regulations

- a. Assurance that company will comply with all Federal and State laws and regulations governing the type of work performed on the project.

2. Project Safety Meetings/Daily Safety Briefings

- a. Job safety briefings at start of project - written documentation required.
- b. Daily safety briefings (written documentation required) - including proper name and voltage of transmission lines, appropriate Minimum Approach Distances (MAD), and the need for Clearances or Hold Orders. When work commences on a different transmission line, another safety briefing will be conducted that covers all safety related issues including the SPECIFIC transmission line involved in the work, the proper voltage of the transmission line, and the MAD involved.
- c. The Contractor will maintain written documentation of daily job briefings using BPA form F 6410.32e or an equivalent format approved by BPA. These reports will be made available to BPA upon request.

3. Incident/Injury/Near-Miss Reporting

- a. The Contractor will maintain an accurate record of, and will immediately report to the Contracting Officer Technical Representative (COR) or the onsite BPA Representative in the manner prescribed by the latter, all cases of death, injury, occupational diseases, and near hits arising from, or incident to, performance of work under this contract.
- b. For incidents that involve personal injury, illness, or property damage the Contractor will complete and file with the BPA Safety Organization through the COR, or onsite BPA Representative, BPA Form F 6410.15e, *Contractor's Report of Personal Injury, Illness, or Property Damage Accident*, within 5 business days of such an occurrence.
- c. For incidents that DO NOT involve personal injury, illness, or property damage the Contractor will complete and file with the BPA Organization through the COR, or onsite BPA Representative, BPA form F 6410.18e, *Contractor's Report of Incident/Near-Miss*, within 5 business days of such an occurrence.

4. Use of Personal Protective Equipment

- a. List types of personal protective equipment appropriate for work being performed.
- b. Qualified Line Clearance Tree Trimmers (QLCTT) will wear red hard hats. All other workers will wear white hard hats.

5. Use of Proper Fall Protection

- a. List fall protection measures appropriate for work being performed.

6. Environmental Issues

- a. Snake bites, bees, poison oak, heat stress, cold weather.

7. Chainsaw Safety

- a. List all appropriate safety measures involved with chainsaw work.

8. Minimum Approach Distances (MAD)

- a. How will Contractor ensure MADs are not violated?
- b. Presence of overhead/nearby transmission lines.
- c. Presence of nearby distribution lines.
- d. Include MAD tables – Table 2 for QLCTT, Table G for persons other than QLCTT.
- e. Use of Safety Watchers for bucket truck work, if necessary.
- f. Are Clearances or Hold Orders required?
- g. Use of laser rangefinders capable of determining heights and distances to determine height of trees.
- h. Use of controlled felling methods – safety lines, winches, climbing and piecing out.
- i. Describe methods used to ensure the safety of workers in the felling zone.
- j. Only QLCTTs can work on trees that have potential to get into Zones A and B.

9. Communication

- a. State how reliable methods of communication will be maintained between contract workers, Natural Resource Specialists (CORs), onsite BPA Representative, and BPA Transmission Line Maintenance workers. Communicating with CORs or on-site BPA Representatives is important.
- b. QLCTTs must have fluency in the English language as well as the languages of Contractor workers under their supervision.
- c. Acknowledge that the Inspector has authority to stop work that presents a safety hazard and the Contractor is obligated to comply with that direction.

10. Qualification of Workers Used for Falling Danger Trees (QLTCC)

- a. Assurance that properly qualified workers will be utilized when felling danger trees (QLCTT).
- b. List the name of the QLCTTs that will be felling trees for your company. Names must be updated and resubmitted to the Contracting Officer if these names change.

11. Hazardous Road Conditions

- a. Steep narrow roads for vehicle and brush machine and navigation.
- b. Condition of roads due to weather.

12. Equipment Used on Site

- a. List types of equipment to be used on site.
- b. Include use of extender saws or long pole saws.

13. Machinery Safety

- a. The Contractor will ensure that no workers are exposed to injury from the unexpected or accidental startup or release of stored energy of equipment or machinery that is shut down for repair, maintenance or adjustment.

14. Herbicide Application

- a. Maneuvering on access roads, avoiding poles and guy wires.
- b. Requirement to have Safety Data Sheets (SDSs) on site.
- c. Assurance that herbicide applicators have the proper State permits/licenses to perform work with herbicides.
- d. Use of respirators if required.
- e. Spray will be directed downward, never up towards transmission line conductors.

15. Mowers

- a. Use of spotter/helpers.
- b. Protection of guy wires/wood poles/tower legs.
- c. Protection of workers from flying rocks/wood.
- d. Protection of nearby vehicles or workers.

16. Proper Fueling Procedures

- a. No fueling under power lines.
- b. No fuel carried on body.

17. Fire Safety

- a. Knowledge of fire precaution levels and appropriate rules and regulations when fire precaution levels are raised.
- b. Precautions used to prevent fires on rights-of-way.
- c. The Contractor is responsible for carrying fire suppression tools.

18. Public Safety

- a. Explain measures that will be taken to protect the public (property owners, hikers, boaters, etc.).
- b. Traffic control measures that will be taken to protect the public on roadways.

19. Handling Downed Conductor

- a. Contractors will never handle ungrounded downed conductors. The handling of downed conductor is to be accomplished ONLY by Qualified Electrical Employees using proper techniques. Until the conductor is properly grounded at the location where the work is to be performed and verified by a Qualified Electrical Employee, the Contractor will not handle the downed conductors.

20. Electrical Contact Protocol

- a. Any worker experiencing an electrical shock of any type will be transported to the nearest emergency medical facility as soon as possible.
- b. In case of electrical shock, the worker is advised to contact one of the Electrical Burn Centers that specialize in electrical shock accidents.
- c. There are three Electrical Burn Centers serving BPA's service territory.
 - i. Emanuel (Portland) covers all of Oregon and north to the Kelso/Longview, Washington area.
 - ii. Harborview (Seattle) covers the rest of Washington and into northern Idaho and western Montana.
 - iii. Intermountain (Salt Lake City) covers southern Idaho.
- d. The operative standard is to have a maximum of 3
- e. hours of air travel time to the nearest burn unit. All three work cooperatively.
 - i. Legacy Emanuel Medical Center (Portland, Oregon) – (888) 598-4232
 - ii. Harborview Medical Center (Seattle, Washington) - (888) 731-4791
 - iii. Intermountain Burn Center - University of UT (Salt Lake City, Utah) - (801) 581-2700

ATTACHMENT 2 – Minimum Approach Distance (MAD) Charts and Tables

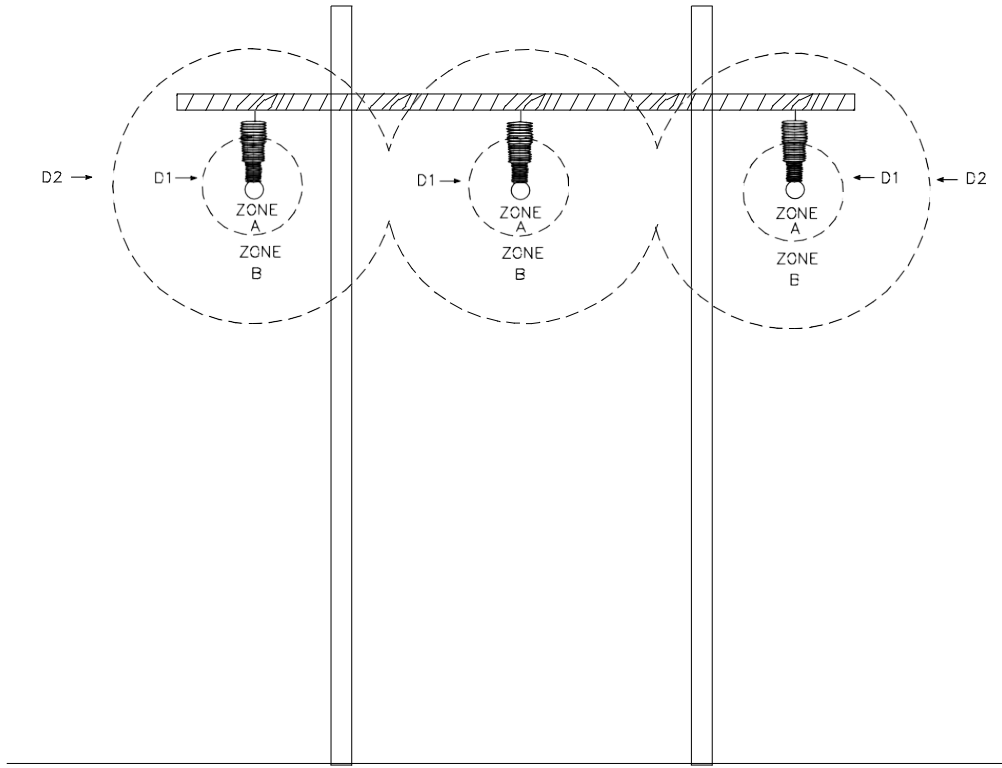


Figure 1 - Minimum Approach Distances (MAD) from Energized Conductors

D1 (distance 1): MAD for Qualified Line-Clearance Tree Trimmer (see Table 2 above)
D2 (distance 2): MAD for all other tree workers (see Table G above)

Zone A – Inside the MAD. Any trees or work completed in this zone requires an outage (Clearance), and the workers will be QLCTTs or under the direct supervision of QLCTTs.

Zone B – If the tree or trees are in this zone, or if there is any potential of the tree, its branches, or tools entering this zone, the workers will be QLCTTs. A Hold Order may be required for work in this zone (see note below).

Note: A Hold Order is required when falling or removing danger trees if an electrical hazard (or a violation of the MAD) could result. The Contractor has the responsibility of determining hazard trees and the need for a Hold Order.

Table 10 – Minimum Approach Distance (MAD) from Energized Conductors for Qualified Line Clearance Tree Trimmers

Table 2 - MAD from Energized Conductors for Qualified Line Clearance Tree Trimmers	
Nominal Voltage (Phase-to-Phase)	Phase-to-Ground (ft-in)
51 – 300 V	Avoid Contact
301 – 5k V	2'-1"
15 kV	2'-9"
34.5 kV	3'-5"
46 kV	3'-10"
69 kV	4'-9"
115 kV	5'-2"
138 kV	5'-11"
161 kV	6'-10"
230 kV	9'-0"
287 kV	11'-3"
345 kV	15'-0"
500 kV	21'-9"

NOTE: MADs are adjusted for maximum elevation on BPA's system and exceed the values listed in in OSHA 1910.269(r) Tables R-7 and R-8. Refer to ANSI Z133.1-2012 and BPA WS-5-1 for additional information

King,James J (CONTR) - CGI-7

From: Hough,Robert G (BPA) - NSSF-BELL-1
Sent: Monday, November 30, 2020 8:20 AM
To: Morse,Christopher S (BPA) - TFBV-DOB-1
Subject: RE: Helicopter Tree Cutting Demo: Documents:

We have no issues if there is not a transaction.
Rob

From: Morse,Christopher S (BPA) - TFBV-DOB-1 <csmorse@bpa.gov>
Sent: Monday, November 30, 2020 8:15 AM
To: Hough,Robert G (BPA) - NSSF-BELL-1 <rghough@bpa.gov>
Subject: RE: Helicopter Tree Cutting Demo: Documents:

They are and I am working with them. Just wanted to make sure we were good with contracting.

From: Hough,Robert G (BPA) - NSSF-BELL-1
Sent: Monday, November 30, 2020 8:13 AM
To: Morse,Christopher S (BPA) - TFBV-DOB-1
Subject: RE: Helicopter Tree Cutting Demo: Documents:

I don't think so, is Safety and Aircraft Services involved?

From: Morse,Christopher S (BPA) - TFBV-DOB-1 <csmorse@bpa.gov>
Sent: Monday, November 30, 2020 8:10 AM
To: Hough,Robert G (BPA) - NSSF-BELL-1 <rghough@bpa.gov>
Subject: Helicopter Tree Cutting Demo: Documents:

Rob,

Swanson Group Aviation is looking to provide us a free demo of the aerial tree topping capabilities. Does contracting need any documents, info, etc. from this company given they are doing this for free?

Chris Morse

Bonneville Power Administration
Supervisory Natural Resource Specialist
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