AGENDA
GRANT COUNTY PUBLIC UTILITY DISTRICT
Via Conference Call
+1 509-703-5291   Conference ID: 678 050 6#
COMMISSION MEETING
Tuesday, July 14, 2020

An Executive Session may be called at any time for purposes authorized by the Open Public Meetings Act

9:00 a.m.  Commission Convenes
           Review and Sign Vouchers

10:00 a.m.  Reports from Staff

12:00 Noon  Lunch

1:00 p.m.  Safety Briefing
           Pledge of Allegiance
           Attendance
           Public requests to discuss agenda items/non-agenda items
           Correspondence
           Business Meeting

1.  Consent Agenda

   Approval of Vouchers

   Meeting minutes of June 23, 2020

2.  Regular Agenda

   8944 – Resolution Superseding Resolution No. 8879 Relating to Amending Rate Schedules No. 2, No. 6 and Fee Schedule.

   Motion authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 6 to Contract 430-4151 with Jack R. Benjamin and Associates, increasing the not-to-exceed contract amount by $510,000.00, for a new contract total of $1,500,000.00, extending the contract completion date to December 31, 2021 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 6.  (3334)

3.  Review Items For Next Business Meeting

   Motion authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 3 to Contract 430-09950 with Arch Staffing & Consulting, increasing the not-to-exceed contract amount by $1,000,000.00 for a new contract total of $1,750,000.00 and resetting the delegated
authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 3. (xxx)

Motion authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 3 to Contract 130-08756 with North Sky Communications, LLC, increasing the not-to-exceed contract amount by $13,400,000.00 for a new contract total of $33,900,000.00 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 3. (xxx)

Motion authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 2 to Contract 130-09724 with Quanta Electric Power Construction, LLC, increasing the not-to-exceed contract amount by $3,442,954.31 for a new contract total of $5,736,295.26 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 2. (xxx)

4. Calendar

5. Reports from Staff (if applicable)

Adjournment
CONSENT AGENDA
REGULAR MEETING
OF PUBLIC UTILITY DISTRICT NO. 2 OF GRANT COUNTY

June 23, 2020

The Commission of Public Utility District No. 2 of Grant County, Washington, convened at 9:00 a.m. via Microsoft Teams Meeting / +1 509-703-5291 Conference ID: 678 050 #6 with the following Commissioners present: Tom Flint, President; Larry Schaapman, Vice-President; Judy Wilson, Secretary; Dale Walker, Commissioner; and Nelson Cox, Commissioner.

The Commission convened to review vouchers and correspondence.

The Commission recessed at 9:10 a.m.

The Commission resumed at 9:50 a.m.

A round table discussion was held regarding the following topics: COVID response update and recent change in Incident Criticality Level; Grant PUD correspondence submitted to Governor Jay Inslee requesting utility customer assistance programs be developed at the local level as opposed to jurisdiction of the Utilities and Transportation Commission (UTC); Port of Moses Lake community outreach; overwhelming success of the June 18 Safety Days virtual event; upcoming retirement of former General Manager, Tony Webb; and ongoing Integrated Resource Plan (IRP) efforts.

RJ Fronsman, Senior Safety Coordinator, presented the June Safety report.

Craig Bressan, Senior Manager of Safety, presented the Safety Health and Improvement (SHIP) Plan report.

Richard Cole, Customer Services Supervisor, presented a modification proposal to Rate Schedule Nos. 2 and 6.

Fallon Long, Security Manager, provided the Security report.

Robert Lougee, Corrective Action Manager, presented the Corrective Action report.

The Commission recessed at 11:45 a.m.

The Commission resumed at 1:00 p.m.

Correspondence was noted received from Nellie Robinson, of Quincy, Washington, expressing dissatisfaction with Grant PUD’s decision to disallow the 4th of July fireworks display at Sunland Estates.
Rob Skordas, USBR Deputy Regional Director, expressed appreciation to Grant PUD Commissioners and staff for the continued opportunity to work together on the Cost of Service Study (COSS). In addition, he requested a phone-in option for the upcoming July 7 technical transmission workshop and further stressed desire that the July 13 transmission workshop be held under an in-person format or postponed until such time all are allowed to gather face-to-face.

Consent agenda motion was made Mr. Schaapman and seconded by Mrs. Wilson to approve the following consent agenda items:

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After consideration, the above consent agenda items were approved by unanimous vote of the Commission and signatures were affirmed.

The Commissioners reviewed future agenda items.

The Commission calendar was reviewed.

Thomas Stredwick, Senior Manager of Organizational Development, provided the Organizational Development report.

Phil Law, Term Marketer, Rich Flanigan, Senior Manager of Wholesale Marketing and Supply, and Paul Dietz, Enterprise Risk Manager, presented the Integrated Resource Plan (IRP).

The Commission further discussed a proposed “Rate Holiday” scenario previously brought forward by Commissioner Walker.

The Commission recessed at 3:20 p.m.

The Commission resumed at 3:30 p.m.

An executive session was announced at 3:30 p.m. to last until 4:30 p.m. to review performance of a public employee with legal counsel present pursuant to RCW 42.30.110(1)(g). The executive session concluded at 4:30 p.m. and the regular session resumed.

There being no further business to discuss, the Commission adjourned at 4:30 p.m. on June 23 and reconvened on Tuesday, July 7 at 1:00 p.m. via Microsoft Teams Meeting for the purpose of holding a transmission/wheeling rate workshop and any other business that may come before the Commission with the following Commissioners present: Tom Flint, Larry Schaapman, Judy Wilson, Dale Walker and Nelson Cox. A copy of the notice of adjournment was posted to the Grant PUD website.
There being no further business to discuss, the Commission adjourned at _____ p.m. on July 7 and reconvened on Monday, July 13 at 1:00 p.m. via Microsoft Teams Meeting for the purpose of holding a transmission/wheeling rate workshop and any other business that may come before the Commission with the following Commissioners present: Tom Flint, Larry Schaalman, Judy Wilson, Dale Walker and Nelson Cox. A copy of the notice of adjournment was posted to the Grant PUD website.

There being no further business to discuss, the June 23 meeting officially adjourned at _____ p.m. on July 13, 2020.

______________________________________________
Tom Flint, President

ATTEST:

______________________________________________  ________________________________________________
Judy Wilson, Secretary                          Larry Schaalman, Vice President

______________________________________________  ________________________________________________
Dale Walker, Commissioner                        Nelson Cox, Commissioner
REGULAR AGENDA
RESOLUTION NO. 8944

A RESOLUTION SUPERSEDING RESOLUTION NO. 8879 RELATING TO AMENDING RATE SCHEDULE NO. 2, NO. 6, AND FEE SCHEDULE

Recitals

1. Pursuant to RCW 54.16.040, Grant PUD is authorized to regulate and control the use, distribution, rates, service, charges, and price of electric energy;

2. Resolution No. 8879 previously adopted Rate Schedule Nos. 1, 2, 3, 6, 7, 14, 15, 16, and 85;

3. The General Manager and Grant PUD staff recommend amending Grant PUD Rate Schedule No. 2 as set forth in Exhibit A;

4. The General Manager and Grant PUD staff recommend amending Grant PUD Rate Schedule No. 6 as set forth in Exhibit B; and

5. The General Manager and Grant PUD staff recommend amending Grant PUD Fee Schedule as set forth in Exhibit C.

NOW, THEREFORE, BE IT RESOLVED by the Commission of Public Utility District No. 2 of Grant County, Washington that Rate Schedule Nos. 2, 6 and the Fee Schedule are effective and amended as set forth in Exhibits A, B & C.

PASSED AND APPROVED by the Commission of Public Utility District No. 2 of Grant County, Washington, this 14th day of July, 2020.

________________________________________
President

ATTEST:

________________________________________  __________________________________________
Secretary                            Vice President

________________________________________  __________________________________________
Commissioner                         Commissioner
MEMORANDUM

June 23, 2020

TO: Kevin Nordt, General Manager/Chief Executive Officer

VIA: Dave Churchman, Chief Customer Officer

FROM: Rich Cole, Energy Service Specialist
       Bob Brill, Rates and Pricing Economist
       Terry McKenzie, Sr. Manager, Customer Solutions

SUBJECT: General Service Rate Schedule 2, Street Lighting Rate Schedule 6, and Fee Schedule

Purpose: To request Commission approval of revised General Service Rate Schedule 2, Street Lighting Service Rate Schedule 6, and the Fee Schedule

Background: Customer Solutions and Rates & Pricing are recommending changes to General Service Rate Schedule 2, Street Lighting Service Rate Schedule 6, and the Fee Schedule. The modification to Rate Schedule 2 would add a new fee schedule for small devices that consume energy but do not justify the cost of a meter. The change to Rate Schedule 6 would add LED into the Street Lighting schedule in response to recent interest from cities within the County. Changes to the Fee Schedule corrects fees associated with Customer Service Policy Section 4.5.1.A.

Rate Schedule 2 Discussion: Currently, the PUD has 20 Rate Schedule 2F customers with 282 active service agreements in Grant County. This calculation methodology has been the PUD’s historical practice; however, staff believes it was never properly adopted into Rate Schedule 2. Grant PUD’s business practice of billing a flat rate for energy usage for non-metered infrastructure started with the City of Warden when they constructed a streetlight in 1956. Since that time, the flat rate calculation appropriate for certain infrastructure (i.e.; streetlights, security cameras, communication boosters, and Grant PUD equipment) was continued. This rate calculation is used in instances where the equipment uses very little energy so that estimating consumption is a more cost-effective method than metering the energy. The proposed changes to Rate Schedule 2 documents the use of a flat rate and describes how that rate is calculated. The charges for Rate Schedule 2F are the same as those for Rate Schedule 2, however the kWh energy usage is estimated based on the equipment and calculated at the time the customer requests service. The estimated energy usage is entered in the Customer Information System for billing purposes.

Rate Schedule 6 Discussion: The Cities within Grant County PUD’s operational area expressed a desire to have current conventional lights changed to LED. Streetlight technology, cost and availability has changed over the years. LED lights have a longer life span which lowers the maintenance costs. The energy consumption of an LED light is less than 50% of the energy consumed by an equivalent conventional High-Pressure Sodium (HPS) streetlight. LED lights have the capability of having different color output from the “Cool” (bluish light) to the “Warm”
Updating Rate Schedule 6 to include LED’s clarifies the rates charged to customers that choose to convert or install LED streetlights. Staff is not proposing any change to the existing rate blocks currently reflected on Rate Schedule 6.

**Fee Schedule Discussion:** This change corrects the fee schedule referenced in the Customer Service Policy on Line Extension Fees, 4.5.1.A to change from “up to 2500 KVA” to “up to 500 KVA”. This modification was missed after previous resolution approval of Section 8 of the Customer Service Policy. Section 8 addresses charges for Rate 7 customers above 500 KVA. Rate 7 customers over 500 kVA now pay 100% of service facility costs per the existing unchanged policies in Section 8 of the Customer Service Policy. Rate 7 customers below 500KVA will continue to pay 75% of the estimated line extension cost.

This change to the fee schedule corrects the statement “One hundred percent (100%) of the Estimated Extension Cost plus 100% of the cost in excess of the applicable maximum amount listed.” to now read “Seventy-five percent (75%) of the Estimated Extension Cost plus 100% of the cost in excess of the applicable maximum amount listed.” With this update the Fee Schedule and the Customer Service Policy align.

**Economic Analysis Rate Schedule 6:** Washington State Transportation Improvement Board is offering a grant for LED lighting funding for smaller cities within the County to cover all costs to switch existing lighting to LED lighting. Under this program, Grant PUD replacement costs are eligible to be reimbursed by the State for LED streetlights. Cities apply for the grant, Grant PUD would perform or contract out the work to replace the bulbs, and the PUD would be compensated for its costs including fully loaded labor and materials. Several cities in the County have expressed interest in applying for the grant.

Grant PUD maintains (and primarily owns) the streetlights and charges the cities under Rate Schedule 6. Replacing existing lights with LED’s has the following benefits:

1. Virtually all streetlights are on a flat rate therefore any energy savings accrue to the PUD while retail revenue under Rate Schedule 6 will remain nearly the same.
2. The longer lifespan of LED’s (10-years compared to 3-5 years for existing lighting) will significantly reduce O&M cost of replacement. Once the LED streetlights are in place, staff estimates the net present value of savings to be approximately $497,000 over a ten-year period (see Exhibit D). This amount includes both installation and electric cost savings.
3. GPUD can claim the energy efficiency savings under I-937.

**Recommendation:** To request Commission approval of:
1) Revised Rate Schedule 2, incorporating 2F
2) Revised Rate Schedule 6, incorporating LED, and
3) Revised Fee Schedule related to Customer Service Policy Section 4.5.1.A.

**Legal Review:** See attached e-mail(s).
Robbie, I approve.

Hi Terry, Can you please approve the memo via e-mail?

Thank you,
Robbie
Motion was made by ___________ and seconded by ___________ authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 6 to Contract 430-4151 with Jack R. Benjamin and Associates, increasing the not-to-exceed contract amount by $510,000.00, for a new contract total of $1,500,000.00, extending the contract completion date to December 31, 2021 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 6.
TO: Kevin Nordt, General Manager
VIA: Richard Wallen, Chief Operating Officer
      Ty Ehrman, P.E., Managing Director of Power Production
      Dale Campbell, P.E., Senior Manager of Power Production Engineering
      Rebecca Simpson, Manager of Dam Safety Engineering
      Kevin Marshall, P.E., Outgoing Chief Dam Safety Engineer
      Brandon Little, P.E., Incoming Chief Dam Safety Engineer
FROM: Zach Ruby, P.E., Dam Safety Engineer
SUBJECT: Contract 430-4151, Change Order No. 6

Purpose: To request Commission approval of Change Order No. 6 for Contract 430-4151, Jack R. Benjamin Associates, Inc., to increase the total contract price from $990,000 to $1,500,000 and extend the contract completion date to December 31, 2021.

Discussion: The District is committed to performing seismic analyses of the Priest Rapids Project embankments. The District and several consultants have been performing detailed seismic fragility, life safety, and seismic risk analyses for the Wanapum left embankment. The seismic fragility analysis includes a Senior Seismic Hazard Analysis Committee (SSHAC) Level 3 study. This project began following the completion of the mid-Columbia Probabilistic Seismic Hazard Analysis (PSHA, 2012) and has been led by Dr. Martin McCann of Jack R. Benjamin Associates, Inc. (JBA) since that time.

Along with JBA, other projects participants include a four-member Technical Integration (TI) Team with a supporting geotechnical consultant, a three-member Participatory Peer Review Panel (PPRP), and a three-member Risk Review Board (RBB).

The analyses being performed are very detailed and have covered new ground technically in evaluating the fragility of the Wanapum left embankment. While the scope has not changed, the rigorous level of detail for the analyses along with peer reviews and regulatory coordination have impacted the schedule and fee. The additional time and funds being requested in this Change Order are intended to take the project to successful completion. That is, to complete the fragility, life safety, and risk analyses and to perform a Risk Informed Decision Making (RIDM) evaluation based on the results of those analyses. We anticipate that the life safety analysis will be completed third quarter 2020, the fragility analysis first quarter 2021, the risk analysis second quarter of 2021, and the RIDM evaluation fourth quarter 2021.

Justification: The seismic fragility, life safety, and seismic risk analyses are required to quantify the probability and consequences of an embankment breach resulting in an uncontrolled release of the reservoir (URR).

- The seismic fragility and risk analyses consider uncertainties in the data and models used to evaluate the performance of the embankment during and after a seismic event. Identifying and quantifying these uncertainties helps the District better understand and appropriately respond to the associated risks. Using this method will likely result in a solution that is more cost effective and better protects against an uncontrolled release of the reservoir than other methods.
• If the project is not continued to completion, our regulator may require remedial measures without adequately understanding the seismic performance of the embankment and downstream consequences of a potential breach. In such a case, the required remediation may be both overly conservative on the one hand while not addressing the actual performance issues on the other. If this option was selected it would lead to an immediate deterministic analysis to assess remediation options for the left embankment. The cost for this option was estimated at $110M to $200M in 2011. The estimate has not been revised since that time, but Douglas PUD is estimating a similar remediation at Wells Dam to be $500M. This option is not recommended.

Financial Considerations:
• No other alternatives have been considered. This is a continuation of a project that the FERC has been monitoring since completion of the 2012 PSHA. The FERC expectation is that the District will continue to apply probabilistic analysis techniques in the seismic evaluation of the Wanapum left embankment.
• This work is currently included in the 2020 District budget under Budgetary Contract No. 1100-05, PID 103088, Cost Center EB5300.
• The work will be added to the 2021 budget to accommodate completion of the project.

Change Order History: See attached change order table.
• See attached change order table.

Legal Review: See attached email.

Recommendation: Commission approval of Change Order No. 6 to Contract 430-4151 to increase the total contract price from $990,000 to $1,500,000 and extend the contract completion date to December 31, 2021.
CHANGE ORDER
NO. 6

Pursuant to Section 5, the following changes are hereby incorporated into this Contract:

A. **Description of Change:** Increase the Contract Price and extend the Contract completion date.

B. **Time of Completion:** The revised completion date shall be December 31, 2021.

C. **Contract Price Adjustment:** As a result of this Change Order, the not to exceed Contract Price shall be increased by the sum of $510,000.00 plus applicable sales tax. This Change Order shall not provide any basis for any other payments to or claims by the Contractor as a result of or arising out of the performance of the work described herein. The new total revised maximum Contract Price is $1,500,000.00, including changes incorporated by this Change Order.

D. Except as specifically provided herein, all other Contract terms and conditions shall remain unchanged.

Public Utility District No. 2 of Grant County, Washington

Accepted By: ____________________________

Accepted By: ____________________________

Name: __________________________________

Name: __________________________________

Title: ___________________________________

Title: ___________________________________

Date: __________________________________

Date: ___________________________________
## Change Order Table

**Contract Title:** SSHAC Process Facilitator for Embankment Seismic Hazard Evaluations  

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<th>Approved by</th>
<th>Executed Date</th>
<th>Revised Completion Date</th>
<th>Cost Change Amount</th>
<th>Revised Contract Amount</th>
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**Total Change Order Cost Change Amount:** $1,425,000.00
Motion was made by ___________ and seconded by ___________ authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 3 to Contract 430-09950 with Arch Staffing & Consulting, increasing the not-to-exceed contract amount by $1,000,000.00 for a new contract total of $1,750,000.00 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 3.
MEMORANDUM

Date June 25, 2020

TO: Kevin Nordt, General Manager/Chief Executive Officer

VIA: Jeffrey Bishop, Chief Financial Officer

FROM: Derin Bluhm, Chief Technology Officer

SUBJECT: Change Order No. 3 for Contract 430-09950

Purpose:

To request Commission approval to increase the awarded contract price with Arch Staffing & Consulting, Contract No. 430-09950. Arch Staffing provides staff augmentation services for IT, PMO and other Grant PUD business units.

Discussion:

Arch provides Grant PUD with contracted labor resources whose skills and capacity are needed to execute technology projects and run business activities that directly support Grant PUD’s business objectives and the strategic plan. This contract is an on-demand agreement utilizing statement of work task authorizations for each resource procured. Grant PUD cannot successfully execute its strategic plans and related project work without staff augmentation and specialized services.

This was originally a technology roadmap agreement and has since expanded for broader use throughout the enterprise. The increased demand for services drives the need to increase additional expenditures with the provider.

The initial agreement was for $250,000.00 was signed on November 20, 2019, the change order for an additional $500,000.00 was signed on March 17, 2020. We anticipate an ongoing relationship with this provider thanks to the high level of service in providing staffing resources. The allocation of funds and price spent to date are outlined in the table below.

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**Justification:**

Each project and/or activity that will require staff augmentation to reduce risk and create a successful outcome will be independently justified and funded, either through capital or O&M budgets. Scaling our resources up and down quickly and efficiently via on demand staff augmentation is an effective long-term strategy for resourcing projects. Staff augmentation and resources required to execute projects will typically be included and justified in the budget and value statement for the project itself. This contract is merely a mechanism for acquiring those resources as efficiently as possible.

If not approved, project and other ongoing work will be unable to be executed in the desired time frame, with high quality results. We have reached the limits of the existing change order and are currently unable to staff additional short-term need.

**Financial Considerations:**

Grant PUD has ability to negotiate rates and accept or reject potential staff augmentation resources presented by Arch. Having this contract in place significantly lowers the administrative work required to onboard resources by maintaining a relationship with a proven partner and issuing task/work authorizations. Quickly scaling resources up and down per project demand and priority is more efficient than adding full time resources which have a long-term impact to District finances.

Grant PUD also has other staff augmentation contracts in place for technology resources and can leverage those current and past agreements for competitive purposes.
**Contract Specifics:**

This agreement is intended to be ongoing through 2022.

**Recommendation:**

Commission approval of Change Order No. 3 to Contract No. 430-09950 to increase the total contract price from $750,000.00 to $1,750,000.00.

**Legal Review:**

See attached e-mail(s).
CHANGE ORDER
NO. 3

Pursuant to Section 5, the following changes are hereby incorporated into this Contract:

A. **Description of Change**: Increase the Contract Price.

B. **Time of Completion**: The completion date shall remain November 15, 2022.

C. **Contract Price Adjustment**: As a result of this Change Order, the not to exceed Contract Price shall be increased by the sum of $1,000,000.00 plus applicable sales tax. This Change Order shall not provide any basis for any other payments to or claims by the Contractor as a result of or arising out of the performance of the work described herein. The new total revised maximum Contract Price is $1,750,000.00, including changes incorporated by this Change Order.

D. Except as specifically provided herein, all other Contract terms and conditions shall remain unchanged.

Public Utility District No. 2
of Grant County, Washington

Arch Staffing & Consulting

Accepted By: ____________________________

Accepted By: ____________________________

Name: __________________________________

Name: __________________________________

Title: __________________________________

Title: __________________________________

Date: __________________________________

Date: __________________________________
## Contract Title:

<table>
<thead>
<tr>
<th>Contract No.</th>
<th>430-09950</th>
<th>Award Date:</th>
<th>11/18/2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Manager:</td>
<td>Derin Bluhm</td>
<td>Original Contract Amount:</td>
<td>$250,000.00</td>
</tr>
<tr>
<td>District Representative (If Different):</td>
<td></td>
<td>Original Contract completion:</td>
<td>11/15/2022</td>
</tr>
<tr>
<td>Contractor:</td>
<td>Arch Staffing &amp; Consulting</td>
<td>Total CO Cost Change Amt</td>
<td>$1,500,000.00</td>
</tr>
</tbody>
</table>

### Change Order Table

<table>
<thead>
<tr>
<th>CO#</th>
<th>Change Description</th>
<th>Approved by</th>
<th>Executed Date</th>
<th>Revised Completion Date</th>
<th>Cost Change Amount</th>
<th>Revised Contract Amount</th>
<th>Authority Level Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase Contract Price</td>
<td>Executive Mgmt</td>
<td>03/17/20</td>
<td>N/A</td>
<td>$500,000.00</td>
<td>$750,000.00</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>2</td>
<td>Revise Section 1, Part A Scope of Work to include District referred resources and replace Appendix 'A' to allow District referred resources to be contracted back to the District at reduced rates.</td>
<td>Senior/Plant Mgr</td>
<td>05/29/20</td>
<td>N/A</td>
<td>$0.00</td>
<td>$750,000.00</td>
<td>$500,000.00</td>
</tr>
<tr>
<td>3</td>
<td>Increase Contract Price</td>
<td>Comm</td>
<td>N/A</td>
<td>$1,000,000.00</td>
<td>$1,750,000.00</td>
<td>$1,500,000.00</td>
<td></td>
</tr>
</tbody>
</table>

- **Increase Contract Price**
  - Executive Mgmt: $500,000.00
  - Revised Contract Amount: $750,000.00
  - Authority Level Tracking: $500,000.00

- **Revise Section 1, Part A Scope of Work**
  - Senior/Plant Mgr: $0.00
  - Revised Contract Amount: $750,000.00
  - Authority Level Tracking: $500,000.00

- **Increase Contract Price**
  - Comm: $1,000,000.00
  - Revised Contract Amount: $1,750,000.00
  - Authority Level Tracking: $1,500,000.00
| Total Change Order Cost Change Amount | 1,500,000.00 |
Motion was made by ___________ and seconded by ___________ authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 3 to Contract 130-08756 with North Sky Communications, LLC, increasing the not-to-exceed contract amount by $13,400,000.00 for a new contract total of $33,900,000.00 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 3.
TO: Kevin Nordt, General Manager/Chief Executive Officer

VIA: Russ Brethower, Senior Manager Wholesale Fiber
Julie Pyper, Senior Manager of Project Management Office
Russ Seiler, PMO Manager Power Delivery

FROM: Jeremy Conner, Project Manager

SUBJECT: Contract 130-08756 Change Order No. 3, Fiber Optic Design and Construction Services 2019-2023

Purpose:

To request Commission approval of Change Order No. 3 to Contract 130-08756 in the amount of $13,400,000.00 for a new total contract Not to Exceed price of $33,900,000.00. This will provide funding to continue with North Sky Communications, LLC (NSC) for Fiber Optic Design and Construction for the twelve month period beginning in late August 2020.

Discussion:

The original contract was awarded on December 11, 2018. NSC continues to design and build out fiber in areas of the County that are designated for connectivity. The District is managing the activities and expenses of NSC.

Funding for this contract was originally set at $10,000,000.00 for 2019 with the intent to add additional funding via change order on an approximately annual basis. At the beginning of 2020 an additional $10,500,000.00 was added via Change Order 1. It is projected that NSC will require additional funding beginning in mid to late August of 2020.

Justification:

The District is committed to expanding the wholesale fiber optic network to all the people of Grant County per Strategic Plan Objective 6. Since the expansion is a major project that has a definable end, the District uses contract labor and equipment to accomplish the task rather than increase and decrease staff levels. This is a five-year contract that helps maintain a stable contract workforce and reduce overall procurement costs.

Financial Considerations:

The $10M dollars approved for NSC in 2019 covered their costs for the first full calendar year. The $10,500,000 amount approved at the beginning of 2020 via Change Order 1 is projected to be spent by mid to late August of 2020. Increasing North Sky’s contract amount now is critical to maintaining forward momentum on the project without a break in funding. See Table 1.
Table 1: Summary of Total Contract Spend

<table>
<thead>
<tr>
<th>Item</th>
<th>2019 Actuals</th>
<th>2020 Actuals Through 6/6/20</th>
</tr>
</thead>
<tbody>
<tr>
<td>Completion of Prior Builds (ML5 and George)</td>
<td>$1,052,653.50</td>
<td>$0.00</td>
</tr>
<tr>
<td>Maintenance Support</td>
<td>$78,760.33</td>
<td>$0.00</td>
</tr>
<tr>
<td>Fiber Drops</td>
<td>$1,738,663.21</td>
<td>$1,122,938.89</td>
</tr>
<tr>
<td>Fiber Buildout Project (40 Areas)</td>
<td>$7,045,870.26</td>
<td>$5,973,685.94</td>
</tr>
<tr>
<td>Annual Total</td>
<td>$9,915,947.30</td>
<td>$7,096,624.83</td>
</tr>
</tbody>
</table>

Several factors have contributed to the fact that the $10.5M for 2020 will be used prior to the end of the calendar year.

1. In 2020 NSC was able to begin the year at full capacity having gotten the project fully off the ground in the first half of 2019.

2. The project team made the decision in 2020 to accelerate NSC’s engineering work. The engineering work drives the rest of the activity on the project. Getting the design work further out ahead of the construction work will make construction more efficient. NSC has added engineering resources in 2020. The target is to have design one year ahead of construction by the beginning of 2021.

3. The project is setting records for the number of new customer connections each month. The COVID pandemic has increased the demand for good internet connections for people working and going to school from home. NSC has been working overtime for the last three months to connect as many new customers as possible.

The fiber buildout budget for 2020 is $13.3M and the connect the customer or “drops” budget for 2020 is $4.5M. It is projected that the work being authorized via this change order will exceed the $13.3M 2020 budget for the fiber buildout and begin using money from the 2021 forecast.

**Change Order History:** See attached change order table.

**Legal Review:** See attached email.

**Recommendation:**

Commission approval of Change Order No. 3 to Contract 130-08756 in the amount of $13,400,000.00 with North Sky Communications, LLC for Fiber Optic Design and Construction in the twelve month period beginning in late August 2020.
Hi Patrick,
Consider it approved and initialed from me.

Thank You,

Jeremy Conner
Fiber Project Manager

From: Patrick Bishop <Pbishop@gcpud.org>
Sent: Thursday, June 25, 2020 11:44 AM
To: Jeremy Conner <Jconner@gcpud.org>; Russell Seiler <Rseiler@gcpud.org>; Julie Pyper <Jpyper@gcpud.org>; Russ Brethower <Rbretho@gcpud.org>
Cc: Vangie Crago <Vcrago@gcpud.org>
Subject: Contract 130-08756 - Fiber Optic Design and Construction Services 2019-2023 - Change Order No. 3 - Commission Packet

Hi all,

We have Legal approval to proceed. Since we are all working remotely, a return email stating approval will take the place of initialing the memo. Can I please get that from each of you and then we will move it on to the Manager’s office for the next Commission Packet? Thank you.

Regards,

Patrick Bishop
Procurement Officer

From: Patrick Bishop <Pbishop@gcpud.org>
Sent: Thursday, June 25, 2020 11:44 AM
To: Jeremy Conner <Jconner@gcpud.org>; Russell Seiler <Rseiler@gcpud.org>; Julie Pyper <Jpyper@gcpud.org>; Russ Brethower <Rbretho@gcpud.org>
Cc: Vangie Crago <Vcrago@gcpud.org>
Subject: Contract 130-08756 - Fiber Optic Design and Construction Services 2019-2023 - Change Order No. 3 - Commission Packet

Hi all,

We have Legal approval to proceed. Since we are all working remotely, a return email stating approval will take the place of initialing the memo. Can I please get that from each of you and then we will move it on to the Manager’s office for the next Commission Packet? Thank you.

Regards,

Patrick Bishop
Procurement Officer
From: Russell Seiler
To: Patrick Bishop; Jeremy Conner; Julie Pyper; Russ Brethower
Cc: Vangie Crago
Subject: RE: Contract 130-08756 - Fiber Optic Design and Construction Services 2019-2023 - Change Order No. 3 - Commission Packet
Date: Friday, June 26, 2020 8:22:36 AM

Thanks Pat. I approve the memo.

Russ

Russ Seiler
Manager of Power Delivery Projects

CELL  509.760.3067
OFFICE  509.793.1558
EXT.  4194
EMAIL  rseiler@gcpud.org

grantpud.org

From: Patrick Bishop <Pbishop@gcpud.org>
Sent: Thursday, June 25, 2020 11:44 AM
To: Jeremy Conner <Jconner@gcpud.org>; Russell Seiler <Rseiler@gcpud.org>; Julie Pyper <Jpyper@gcpud.org>; Russ Brethower <Rbretho@gcpud.org>
Cc: Vangie Crago <Vcrago@gcpud.org>
Subject: Contract 130-08756 - Fiber Optic Design and Construction Services 2019-2023 - Change Order No. 3 - Commission Packet

Hi all,

We have Legal approval to proceed. Since we are all working remotely, a return email stating approval will take the place of initialing the memo. Can I please get that from each of you and then we will move it on to the Manager’s office for the next Commission Packet? Thank you.

Regards,

Patrick Bishop
Procurement Officer

Office  509.793.1556
Email  pbishop@gcpud.org
I approve.

Thank you and take care, Jules

Julie E. Pyper
Senior Manager of the Enterprise Project Management Office

grantpud.org

From: Patrick Bishop <pbishop@gcpud.org>
Sent: Thursday, June 25, 2020 11:44 AM
To: Jeremy Conner <jconner@gcpud.org>; Russell Seiler <rseiler@gcpud.org>; Julie Pyper <jpyper@gcpud.org>; Russ Brethower <rbretho@gcpud.org>
Cc: Vangie Crago <vcrago@gcpud.org>
Subject: Contract 130-08756 - Fiber Optic Design and Construction Services 2019-2023 - Change Order No. 3 - Commission Packet

Hi all,

We have Legal approval to proceed. Since we are all working remotely, a return email stating approval will take the place of initialing the memo. Can I please get that from each of you and then we will move it on to the Manager’s office for the next Commission Packet? Thank you.

Regards,

Patrick Bishop
Procurement Officer

grantpud.org
I approve the request for Change Order No.3 on Contract 130-08756.

Thanks,
Russ
CHANGE ORDER
NO. 3

Pursuant to Section GC-11, the following changes are hereby incorporated into this Contract:

A.  **Description of Change:** Increase the Contract Price.

B.  **Time of Completion:** The completion date shall remain December 31, 2023.

C.  **Contract Price Adjustment:** As a result of this Change Order, the not to exceed Contract Price shall be increased by the sum of $13,400,000.00 plus applicable sales tax. This Change Order shall not provide any basis for any other payments to or claims by the Contractor as a result of or arising out of the performance of the work described herein. The new total revised maximum Contract Price is $33,900,000.00, including changes incorporated by this Change Order.

D.  Except as specifically provided herein, all other Contract terms and conditions shall remain unchanged.

Public Utility District No. 2  
of Grant County, Washington

Accepted By: ____________________________  Accepted By: ____________________________

Name: __________________________________  Name: __________________________________

Title: ___________________________________  Title: ___________________________________

Date: ___________________________________  Date: ___________________________________
## Change Order Table

**Contract Title:** Fiber Optic Design and Construction Services 2019-2023  

<table>
<thead>
<tr>
<th>CO#</th>
<th>Change Description</th>
<th>Approved by</th>
<th>Executed Date</th>
<th>Revised Completion Date</th>
<th>Cost Change Amount</th>
<th>Revised Contract Amount</th>
<th>Authority Level Tracking</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Increase the not to exceed Contract Price.</td>
<td>Comm</td>
<td>12/11/19</td>
<td>N/A</td>
<td>$10,500,000.00</td>
<td>$20,500,000.00</td>
<td>$10,500,000.00</td>
</tr>
<tr>
<td>2</td>
<td>Revise Exhibit &quot;B&quot; Rate Schedule to add one labor classification and three equipment classifications.</td>
<td>Dept Mgr</td>
<td>06/03/30</td>
<td>N/A</td>
<td>$0.00</td>
<td>$20,500,000.00</td>
<td>$0.00</td>
</tr>
<tr>
<td>3</td>
<td>Increase the not to exceed Contract Price.</td>
<td>Comm</td>
<td>N/A</td>
<td>$13,400,000.00</td>
<td>$33,900,000.00</td>
<td>$13,400,000.00</td>
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</tbody>
</table>

**Total Change Order Cost Change Amount:** $23,900,000.00
Motion was made by ___________ and seconded by ___________ authorizing the General Manager/CEO, on behalf of Grant PUD, to execute Change Order No. 2 to Contract 130-09724 with Quanta Electric Power Construction, LLC, increasing the not-to-exceed contract amount by $3,442,954.31 for a new contract total of $5,736,295.26 and resetting the delegated authority levels to the authority granted to the General Manager/CEO per Resolution No. 8609 for charges incurred as a result of Change Order No. 2.
MEMORANDUM

7/14/2020

TO: Kevin Nordt, General Manager/Chief Executive Officer

VIA: Rich Wallen, Chief Operating Officer
     Jeff Grizzel, Managing Director of Power Delivery
     Julie Pyper, Senior Manager of the PMO
     Russ Seiler, Manager of Power Delivery Projects

FROM: David Klinkenberg, Project Manager

SUBJECT: Change Order No. 2 to Contract 130-09724, Grant County Load Growth Project (DB2)

Purpose: To request Commission approval for Change Order No. 2 to contract 130-09724 with Quanta Electric Power Construction, LLC. in the amount of $3,442,954.31. This will increase the contract price from $2,293,340.95 to $5,736,295.26.

This is a planned change order as part of the Design-Build process authorized in RCW 39.10. This change order extends Phase 1 of the project and will provide funding for the following scope per Attachment 1:

1. Long Lead Material

   Additional long lead material for Quincy Plains Substation, Burke Substation, Royal City Substation, and the added scope to include mobile substation connection points within the Mountain View Switchyard. See attachment 2.

2. Continued Engineering

   The current engineering scope is to complete a 30% design for each of the ten project sites within Design-Build. This change order further funds the design of Quincy Plains, Burke, and Royal City from 30% through completed Issued for Construction (IFC) design packages. This change order also funds the IFC design package for increased project scope at the Mountain View Switchyard site for new mobile substation connection points.

3. Design-Builder General Conditions

   Design-Builder’s General Conditions costs include program management activities related to planning, scheduling, pricing development, material ordering, reporting, and coordination between the various companies participating in the work. This also includes funding for the primary subcontractors to support planning and price development in preparation for future change orders that will fund construction.

Discussion:

Design Build 2, also known as the Load Growth Project, utilizes the Progressive Design Build Model to design and construct 10 projects in an expedited time frame. When completed, these projects will help improve the District’s system reliability and provide additional load for District customers.
Design Build 2 includes a combination of building new substations, expanding existing substations and constructing a new transmission line. The project sites are Quincy Plains Substation transformer addition, Mountain View Mobile Tap and Capacitor Banks, Royal Substation rebuild, Burke Substation rebuild, Baird Springs Substation, Frenchman Hills Substation Breaker addition, Red Rock Transmission Line, Red Rock Substation and South Ephrata Substation & Ring Buss.

As mentioned above, funding this portion of the project via change order was planned from the beginning as a standard part of the Design-Build delivery method. The initial scope of work included 30% design for all ten project sites, select long lead material purchases and the development of a price proposal for construction. All subsequent work, including the scope listed here for Change Order 2, is to be funded via negotiated change orders. In parallel with the ongoing work included here, the project team is negotiating final pricing for construction. Once that negotiation is complete, Change Order 3 will be submitted for Commission approval to begin releasing funds for construction work. See Attachment 1.

**Justification:**

Approving this change order at this time provides schedule benefits for the District. Ordering additional material early reduces the risk of potential future supply chain delays associated with the global impact of the COVID-19 pandemic. Also, continued funding for the engineering design maintains forward progress overall. Engineering drives the development of the final Bill of Material for purchasing and is the precursor to construction.

**Financial Considerations:**

The following table shows the cost breakdown for the change order:

<table>
<thead>
<tr>
<th>Item</th>
<th>Price</th>
<th>Timeline</th>
</tr>
</thead>
<tbody>
<tr>
<td>Long Lead Material Purchases</td>
<td>$1,810,221.08 (Lump Sum)</td>
<td>Next 20 weeks</td>
</tr>
<tr>
<td>Engineering Professional Services</td>
<td>$1,295,149.28 (Lump Sum)</td>
<td>Four Months</td>
</tr>
<tr>
<td>Design Builder General Conditions Costs</td>
<td>$337,583.95 (Not to Exceed)</td>
<td>Through start of construction, August Timeframe</td>
</tr>
</tbody>
</table>

The Design-Builder’s initial price proposal for this work was reviewed by District Staff and the District’s Owner’s Representative, Stanley Consultants. The final costs shown above were negotiated over the course of three weeks. The District and Stanley Consultants have determined that the final agreed upon costs are fair and reasonable for the included scope. See Attachment 3.

**Contract Specifics:**

Per RCW 39.10, the Design-Builder is selected based on qualifications and best value. This means that Design-Build contract pricing is based on an open book negotiation with the owner, not a competitive low bid. For long lead material purchasing portion of the project, the Design-Builder does seek multiple bids to ensure best value for the District.
**Recommendation:** Commission approval to Change Order No. 2 to Contract 130-09724 in the amount of $3,442,954.31.

**Legal Review:** See attached e-mail(s).
Approved.

Jeff

---

**From:** Russell Seiler <rseiler@gcpud.org>
**Sent:** Wednesday, June 10, 2020 10:02 AM
**To:** Julie Pyper <jpyper@gcpud.org>; Jeff Grizzel <jgrizzel@gcpud.org>
**Cc:** Patrick Bishop <pbishop@gcpud.org>; David Klinkenberg <dklinkenberg@gcpud.org>
**Subject:** DB2 Change Order 1 - Emails approving the Memo

Julie and Jeff,

I have emails from both of you approving this memo. In both cases the approval was wrapped in a longer message and wasn’t 100% direct. Would you be willing to respond to this email with a definite approval of this memo?

Thanks,

Russ

**Russ Seiler**
*Manager of Power Delivery Projects*

**CELL** 509.760.3067  
**OFFICE** 509.793.1558  
**EXT.** 4194  
**EMAIL** rseiler@gcpud.org

[grantpud.org](grantpud.org)
Approved. Take care, Jules

Julie E. Pyper  
*Senior Manager of the Project Management Office*

**From:** Julie Pyper  
**To:** Russell Seiler; Jeff Grizzel  
**Cc:** Patrick Bishop; David Klinkenberg  
**Subject:** RE: DB2 Change Order 1 - Emails approving the Memo  
**Date:** Wednesday, June 10, 2020 10:09:31 AM

---

Russ Seiler  
*Manager of Power Delivery Projects*

---

Julie and Jeff,

I have emails from both of you approving this memo. In both cases the approval was wrapped in a longer message and wasn’t 100% direct. Would you be willing to respond to this email with a definite approval of this memo?

Thanks,

Russ
**Phase 1 Contract Change Order**

Public Utility District No. 2 of Grant County  
"Owner"  

Quanta Electric Power Construction, LLC  
"Design-Builder" or "QEPC"

---

**Project Name:** Load Growth Project Contract #130-09724  
**Change Order #:** 2

<table>
<thead>
<tr>
<th>WBS #</th>
<th>Description of Change</th>
<th>Change in Contract Time</th>
<th>Change in Phase 1 NTE</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>QEPC General Program Management incorporating the changes set forth in the Revised Exhibit C to the Agreement, Attachment 1 to this Change Order (&quot;Revised Exhibit C&quot;). This amount includes a $75,000 deduction for the underrun in survey costs. The costs for the General Program Management set forth in this Change Order shall be paid as a Not to Exceed Amount pursuant to Section 6.4.2 of the Agreement. The amount set forth herein includes QEPC’s Fee Percentage.</td>
<td>See below</td>
<td>283,957.60</td>
</tr>
<tr>
<td>0.0</td>
<td>HDR Engineering (&quot;HDRE&quot;) General Conditions, incorporating the changes set forth in Revised Exhibit C. The HDRE General Conditions costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>214,608.53</td>
</tr>
<tr>
<td>1.1</td>
<td>Quincy Plains Substation Engineering, incorporating the changes set forth in Section 1.1 of Revised Exhibit C. The Quincy Plains Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>87,119.28</td>
</tr>
<tr>
<td>2.1</td>
<td>Burke Substation Engineering, incorporating the changes set forth in Section 2.1 of Revised Exhibit C. The Burke Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>251,687.60</td>
</tr>
<tr>
<td>3.1A</td>
<td>Mountain View Mobile Tap Engineering, incorporating the changes set forth in Section 3.1A of Revised Exhibit C. The Mountain View Mobil Tap Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>227,818.52</td>
</tr>
<tr>
<td>4.1</td>
<td>The Baird Springs Substation Engineering, including additional costs for the work set forth in Revised Exhibit C. The Baird Springs Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>73,060.29</td>
</tr>
<tr>
<td>5.1</td>
<td>The Red Rock Substation Engineering, including additional costs for the work set forth in Revised Exhibit C. The Red Rock Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>27,444.55</td>
</tr>
<tr>
<td>6.1</td>
<td>The Frenchman Hill Substation Engineering, including additional costs for the work set forth in Revised Exhibit C. The Frenchman Hill Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>42,444.78</td>
</tr>
<tr>
<td>7.1</td>
<td>The Red Rock Line Engineering, including additional costs for the work set forth in Revised Exhibit C. The Red Rock Line Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>See below</td>
<td>28,273.34</td>
</tr>
<tr>
<td>Paragraph</td>
<td>Description</td>
<td>Amount</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>8.1</td>
<td>The South Ephrata Substation Engineering, including additional costs for the work set forth in Revised Exhibit C. The South Ephrata Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>43,167.35</td>
<td></td>
</tr>
<tr>
<td>9.1</td>
<td>The South Ephrata Ring Bus Engineering costs for the work set forth in Revised Exhibit C reflect a deduction to costs, bond costs and B&amp;O tax to reconcile the estimated costs with the actual costs on the project.</td>
<td>-16,950.69</td>
<td></td>
</tr>
<tr>
<td>10.1</td>
<td>Royal Substation Engineering, incorporating the changes set forth in Section 10.1 of Revised Exhibit C. The Royal Substation Engineering costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement without additional Fee Percentage to QEPC.</td>
<td>308,920.31</td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>Burke Substation Property Services, incorporating the changes set forth in Section 2.1 of Revised Exhibit C. The Burke Substation Property Services costs set forth in this Change Order shall be paid as a Not to Exceed pursuant to Section 6.4.2 of the Agreement and includes the Fee Percentage to QEPC.</td>
<td>3,777.71</td>
<td></td>
</tr>
<tr>
<td>10.5</td>
<td>Royal Substation Property Services, incorporating the changes set forth in Section 10.2.1 of Revised Exhibit C. The Royal Substation Property Services costs set forth in this Change Order shall be paid as a Not to Exceed pursuant to Section 6.4.2 of the Agreement and includes the Fee Percentage to QEPC.</td>
<td>3,777.71</td>
<td></td>
</tr>
<tr>
<td>1.2, 2.2, 3.2A, 10.2</td>
<td>Long Lead Item Procurement as set forth in Attachment 2 to this Change Order, “Breakdown of Long Lead Item material Costs” The Long Lead Item Procurement also incorporates the changes in Sections 1.2, 2.2, 3.2A, and 10.2 of Revised Exhibit C. The Long Lead Item Procurement Costs set forth in this Change Order shall be paid as a Lump Sum pursuant to Section 6.4.3 of the Agreement. The Lump Sum includes a Cost of the Work Contingency, the Design-Builder’s Fee Percentage, and B&amp;O Tax. Based on payment of the Design-Builder’s Fee Percentage within the Lump Sum, the parties agree to modify Section 6.2.3 of the Agreement as set forth below</td>
<td>1,810,221.08</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Additional Bond Costs</td>
<td>27,627.25</td>
<td></td>
</tr>
<tr>
<td></td>
<td>B&amp;O Tax</td>
<td>25,999.10</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Exhibit C to the Agreement is hereby revised, and the parties agree that the Revised Exhibit C describes the Work for Phase 1 and that this Change Order Number 2 includes sufficient funds to perform the Work set forth herein without additional costs.</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The following Attachments to this Change Order are incorporated herein by reference:</td>
<td>n/a</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.1 Attachment 1, Revised Exhibit C to the Agreement “Phase 1 Extension”</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.2 Attachment 2, Phase 1 Extension Long Lead Material Pricing</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.3 Attachment 3, Phase 1 Extension Schedule of Values</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>3,442,954.31</td>
<td></td>
</tr>
</tbody>
</table>

| Original Phase 1 Not to Exceed Amount | $2,028,023.14 |
| Net change by previous authorized Change Orders | $265,317.81 |
| Total net [check one] ☒ Increase / □ Decrease in the Phase 1 NTE by this Change Order | $3,442,954.31 |
| New Phase 1 NTE including this Change Order | $5,736,295.26 |

The new Contract Time including this Change Order is:
EXHIBIT G
PHASE 1 CHANGE ORDER

<table>
<thead>
<tr>
<th>New Phase 1 Completion Date</th>
<th>September 30, 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>New Interim Milestone Dates:</td>
<td></td>
</tr>
</tbody>
</table>

The changes in the Phase 1 Not to Exceed Amount and Contract Time identified in this Change Order include all costs and time extensions associated with performing the changes set forth herein.

<table>
<thead>
<tr>
<th>Public Utility District No. 2 of Grant County</th>
<th>Quanta Electric Power Construction, LLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>By: ________________________________</td>
<td>By: ________________________________</td>
</tr>
<tr>
<td>Signature</td>
<td>Signature</td>
</tr>
<tr>
<td>Printed Name</td>
<td>Printed Name</td>
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<tr>
<td>Title: ________________________________</td>
<td>Title: ________________________________</td>
</tr>
<tr>
<td>Date: ________________________________</td>
<td>Date: ________________________________</td>
</tr>
</tbody>
</table>
Below is the current scope of services for phase 1 of the project which is to focus on the coordination and communication between the selected Design Builder and Owner (GCPUD) necessary for the Design Builder to clearly identify the scope of work, budget and schedule for each project site to develop a final, not to exceed Guaranteed Maximum Price (GMP).

Certain aspects of Phase 1 have included the final scope to complete design and procurement

**PROJECT UNDERSTANDING**

The project scope has been organized into a Work Breakdown Structure (WBS) Packages, each with several deliverables. Each WBS Package has a defined scope of work and deliverable(s). Because each WBS Package builds on the deliverables from other WBS Packages, it is important at the completion of each WBS Package deliverable that the deliverables are reviewed by GCPUD and any comments are resolved and incorporated by the Design Builder.

**Introduction**

**Work Package Descriptions**

The WBS is a package-oriented division of work necessary to complete Phase 1 of the Project. It categorizes successively smaller packages, in order to achieve schedule and budget control at the most practical level. The description provides a summary of the work that will be done during each task and the deliverables that will be produced.

The Work Package Descriptions describe the services that will be provided for this phase of the project and form the basis for project management and identification of scope changes. Unless otherwise noted, the deliverables outlined in the Work Package Descriptions are the responsibility of the Design Builder.
Work Group 0.0: General Conditions

Scope: The Phase 1 scope of general conditions has been expanded to provided services through the first GMP amendment change order. The cost for this work is included in the updated schedule of values.

Work Package 0.01: Project Management

Scope: Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.

Deliverables:
- Phase 1 Monthly Progress Reports
  - Project summary
  - Financial summary
  - Work completed in current period
  - Work planned for upcoming period
  - Critical path narrative
  - Issues and concerns
  - Submittal log
  - RFI log
- QA/QC Plan
- Safety Plan
- Communication Plan
- Develop Work Breakdown Structure (WBS) for Phase 2
- Develop Scope of Work (SOW) Narrative for Phase 2
  - Update Exhibit C to include all of Phase 1 and Phase 2 scope
- Develop final Guaranteed Maximum Price (GMP) and Schedule of Values (SOV) for Phase 2
  - Update attachment B to include hours and cost for Phase 1 and Phase 2 scope

Work Package 0.02: Project Administration / Document Control

Scope: Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.

Deliverables:
- Phase 1 coordination time to learn and work within GCPUD SharePoint
- Meeting minutes
- Monitor and Control submittals for Phase 1 within SharePoint
  - Transmittal / Submittal log
  - RFI log

Work Package 0.03: Project Controls/Scheduling

Scope: Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.
The schedule shall define each of the phases and deliverables defined in this Exhibit C SOW. The Phase 1 schedule will be updated and issued monthly and shall be developed in Primavera P6 format.

**Deliverables:**

- **Phase 1 - Primavera P6 Schedule**
  - Due 1 month after NTP
  - Tracks the deliverables listed in Phase 1 Exhibit C
  - Schedule will be provided with monthly progress report submittals in XER and PDF formats

- **Develop Phase 2 resource loaded, critical path method (CPM) schedule in Primavera P6 version 8.0 or greater**
  - XER and PDF format
  - Organized around Exhibit C WBS
  - Critical Path Method Schedule
    - List all deliverables in Exhibit C document required to complete Phase 2 scope of work
    - All deliverables have appropriate durations to complete Phase 2 project milestones
    - All deliverables are logically tied

- **Develop Earned Value Progress Reporting**
  - To be utilized with the phase 2 GMP to monitor and track progress
    - Planned work to be completed monthly
    - Spent monthly
    - Earned monthly
    - Forecast to complete monthly
  - Monitor and Track
    - Cost Performance Index (CPI)
    - Schedule Performance Index (SPI)

**Provided by others:**

- **GCPUD to provide**
  - Project milestones
  - Project site in-service dates
  - Project site outage constraints
  - GCPUD procurement vendor deliverable dates

**Work Package 0.04: Meetings**

**Scope:** Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.

- Kickoff meeting with GCPUD office in Ephrata, Washington Office.
- Twenty (20) – weekly meetings for phase 1 scope. One per week for 4 months.
- Six (6) periodic remote meetings during the Phase 1 design to finalize Phase 2 Scope, Budget and Schedule.
- Three (4) periodic Face to Face meetings during Phase 1 to finalize Phase 2 Scope, Budget and Schedule.
- Two (2) face to face monthly meeting in Ephrata, Washington
- Two (2) remote monthly meeting
Deliverables:
- Meeting Minutes.

**Work Package 0.05: Progress Reports**

**Scope:** Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.

**Deliverables:**
- Phase 1 Monthly Progress Reports
  - Project summary
  - Financial summary
  - Work completed in current period
  - Work planned for upcoming period
  - Updated PDF schedule layout (total project and 4 week look ahead)
  - Critical path narrative
  - Earned Value progress summary
    - Earned Value S-curve
      - Planned
      - Earned
      - Spent
      - Forecasted
    - Cost Performance Index narrative
    - Schedule Performance Index narrative
  - Issues and concerns
  - Action Item Register
  - Submittal log
  - RFI log

**Work Package 0.06: Phase 2 GMP Development**

**Scope:** Services provided will be “level of effort” activities throughout the duration of phase 1 of the project.

**Deliverables:**
- Update Project Site Design Criteria and Design Outlines
- Update Exhibit C Scope of Work Narrative
- Update Attachment B Schedule of Values with Final GMP
- Update Contract Documents

**Work Package 0.07: Phase 1 General Condition Cost of Work**

**Scope:** All additional costs that may occur during phase 1 of the project as identified in section 6.3 of the Grant PUD DB2 DBIA 530 agreement.
**Work Package 0.08: HDRE General Conditions**

**Scope:** Services provided will be “level of effort” activities throughout the duration of phase 1 of the project. Services provided will be “level of effort” activities throughout the duration of phase 2 of the project for Quincy Plains, Burke, Mountain View Mobile, and Royal. All additional costs that may occur during phase 1 of the project as identified in section 6.3 of the Grant PUD DB2 DBIA 530 agreement

**Work Package 0.08.01: Project Management**

Provide project leadership by driving scope, schedule, cost, and quality of deliverables for HDR for “Group 1” projects from detailed design through construction and close-out.

*Quincy Plains, Burke, Mountain View Mobile, Royal Project Management*

**Scope:** Provide project management during the period of design completion and project close-out.

**Deliverables:**
- Monthly Progress Reports
- Schedule Revisions

**Provided By Others:**
N/A

**Work Package 0.08.02: Project Administration / Document Control**

**Group 1 Project Administration / Document Control**

**Scope:** Provide administrative support to design team tracking meeting minutes, submittals, RFIs, and action items. Management of design log through design period and close-out.

**Deliverables:**
- Design Log
- Design Submittals (33)
  - Quincy Plains – 3 Packages x 3 Submittal
  - Burke – 4 Packages x 3 Submittals
  - Mountain View Mobile – 0 Packages
  - Royal – 4 Packages x 3 Submittals

**Provided By Others:**
- N/A

**Work Package 0.08.04: Meetings**

**Weekly Meetings – Phase 2 Group 1**

**Scope:** Attend prime led client weekly meetings during Phase 2 design period. Respond to open action items, and project status for RFI, design considerations.
Meeting will be attended by Design Manager and Substation Lead Engineer via Phone Conference.
Attend contractor internal weekly meetings during Phase 2 design period.
Meetings will be attended by Design Manager(s) via Conference.
Deliverables:
- Agenda (Comments)
- RFI (Comments)
- Action Items (Comments)

Provided By Others:
- N/A

Design Review Meeting – Phase 2 Group 1

Scope: Attend client review meeting for design submittals. Discipline leads or lead designer will attend meeting. In the meetings resolution to open design topics will be discussed and completed and noted within a comment log. Any additional items will be tracked as an action item or RFI as required.

Meetings will be completed remotely using video conference tools.
- Quincy Plains – 4 Disciplines x 2 Meetings
- Burke – 5 Disciplines x 2 Meetings
- Mountain View Mobile – 0 Disciplines
- Royal – 6 Disciplines x 2 Meetings

Deliverables:
- Meeting Minutes

Provided By Others:
- N/A

Work Package 0.08.07: General Conditions Cost of Work

Scope: Accounting and General Admin Cost (expenses - drawings reproduction). Complete charge tracking and invoices on a monthly basis. Invoices will be supplied to prime and passed through to Customer. Expenses to cover general administration cost for drawing reproduction during design period.

Deliverables:
- Invoice - Monthly
Work Group 1.0: Quincy Plains Substation

**Project Site Description:** Quincy Plains is an existing 230/13.8 kV distribution substation where a new second distribution lineup will be added. The new lineup will be similar to the existing lineup and will utilize existing foundations, conduit, and ground grid when possible. The station service for AC & DC panels are sized for this addition however the DC system will require installation of a best battery selector system. New protection and control panels will be added using a comparable philosophy from Randolph Road. The new lineup will include a main MV breaker located in the distribution rack instead of a main disconnect and the distribution main/aux bus will be designed with 3” IPS and 2000A disconnect switches. The new main breaker QP21 will require home run conduits and circuit QP22 and QP24 will be upgraded from (2) 6” conduits to (3) 6” conduits by intercepting the QP23 circuit. The distribution path between vault QP24 and V2771 will be upgraded to (3) 6” conduits. Breaker position Q23 will be left open and the station will require additional yard lighting on a new light pole, existing structures and the control enclosure. A new bus tie will connect the new switchrack to the existing switchrack utilizing existing conduits. The bus tie shall be between breaker position QP13 on the existing switchrack and breaker position QP27 on the new switchrack.

Work Package 1.1: Quincy Plains Substation Engineering

**Scope:** Design Builder shall complete the following engineering deliverables. The existing oil containment design, a perimeter concrete berm, is sufficient for the upgrade.

**Work Package 1.1.1: Civil Engineering**

**Scope:** Not needed

**Deliverables:** None

**Provided by Others:** None

**Work Package 1.1.2: Structural Engineering**

**Scope:** The structural engineering required for Quincy Plains Substation will consist of review and modification of existing foundations and design of structural steel to support the new equipment installation. Specific engineering and design activities will include installation of adhesive anchors within the existing circuit switcher foundation, low voltage rack foundation and validation of remaining existing foundations.

Substation structural steel will be based upon GCPUD existing designs with new detailing. Fabrication drawings and supporting calculations are required for the 15KV Bus Support, 15KV distribution bay, and 15KV CT Feeder Pedestals. Calculations will be provided to support all design activities.

The bus support, CT feeder pedestals and distribution rack structural steel will differ from the existing substation transformer bay lineup to accommodate the required 2000A tandem disconnect switches and removal of the main position 15kV Cleveland disconnect switch. A circuit switcher will be installed in place of a live tank breaker which the existing foundation was originally designed to accommodate.

**Design will include:**

Foundations
• Circuit Switcher x1 (GC245) – Modify with post installed anchors only
• Distribution Rack x1 (QP20RT) – Modify with post installed anchors only

Structural Steel
• Circuit Switcher x1 (Steel stand by Manufacturer) (GC245)
• Distribution Rack x1 (QP20RT)
• 15KV Bus Support x1
• CT Feeder/Bus Tie Pedestals x6

Deliverables:
• Review / validate existing documentation
• Validation of existing foundation designs
• Drawing Index updates
• IFC Foundation plan drawings and details
• IFC Steel Plan
• IFC Steel Drawings and Details
• Foundation calculations verification and modification of existing
• Steel calculations for QP20RT bay, CT Feeder Pedestals, and 15KV Bus Support.
• Bus Span Calculation
• Construction Specification

Provided by Others:
• GCPUD will provide:
  o Existing foundation and steel drawings
  o Transformer vendor information
  o MV breaker vendor information
  o Existing geotechnical report

Work Package 1.1.3: Physical Engineering

Scope: The physical engineering and design for Quincy Plains Substation will consist of above and below grade conduit and grounding, substation general arrangement and elevation drawings and control house layouts and elevations to support the installation of new distribution transformer lineup QP20RT. Construction and assembly units will be finalized along with calculations to support all design activities. The new transformer lineup will utilize as much existing infrastructure as possible connecting to the existing substation rigid bus.

Design will include:
• Circuit Switcher x1 (GC245)
• 230/13.8KV Power Transformer x1 (QP20RT)
• 13.8KV Bus Support x1 (QP21)
• 13.8KV Distribution Rack (3” bus, various jumpers, disconnect switches, three (3) potential transformers) w/ 6 circuit breakers
• 13.8KV CT Feeder/Bus Tie Pedestals with three (3) current transformers x5 (QP22, QP24, QP25, QP26, QP28)
• Lighting – Pole L08 w/ fixtures, Dead-end, Control Enclosure x2
• Revise grounding to connect new equipment and structures
• Revise conduit to connect new devices/modified foundations
• Redirect QP23 conduits to QP22 and QP24 routes. QP23 will not be used in the future
Additional 6” conduit from QP22 to vault QP22
Additional 6” conduit from QP24 to vault QP24
Additional 6” conduit from vault QP24 to V2771
- Control enclosure panels including Best Battery Selector system

**Deliverables:**
- Drawing Index updates
- IFC General Arrangement (Developed in Phase 1)
- IFC Elevations / Sections (Developed in Phase 1)
  - Elevation/Section F-F
- IFC Control House Layouts and Elevations (Developed in Phase 1)
- IFC Construction and Assembly Units (Developed in Phase 1)
- IFC Conduit Plan & Details
- IFC Grounding Plan & Details
- Construction Specification
- Calculations:
  - Grounding Study

**Provided by Others:**
- GCPUD will provide:
  - Existing physical drawings
  - Circuit switcher reference vendor information
  - Transformer vendor information
  - MV breaker vendor information
  - Existing grounding study

**Work Package 1.1.4: P&C Engineering**

**Scope:** The protection and controls engineering and design for Quincy Plains substation will consist of review and validation of existing documents, creation of panel layout drawings, AC/DC schematic updates, creation of conduit/cable schedules and a final bill of materials to support installation of new transformer bay QP20RT. All drawings will be finalized and issued for construction and final vendor drawings will be placed on GCPUD borders.

Design will include:
- Relay Rack 3 – Customer Meter Panel
- Relay Rack 4 – Power Transformer QP20RT
- Meter Rack 5 – Power Transformer QP20RT
- Relay Rack 9 – Under-frequency /Under-voltage (Modify existing)
- Circuit Breaker – QP21, QP22, QP24, QP25, QP26, QP27, QP28

**Deliverables:**
- IFC Cable schedule
- IFC Single Line Diagram (Developed in Phase 1)
- IFC Protection Schematics (Developed in Phase 1)
- IFC Panel layout drawings
- IFC Bill of material
- IFC AC & DC drawings
- Vendor drawings placed on GCPUD borders
• IFC Wiring Diagrams
• Construction Specification
• Calculations:
  o Conduit Fill
  o Voltage Drop
  o CT Saturation
  o DC Loading

Provided by Others:
• GCPUD will provide:
  o Existing P&C drawings
  o Circuit switcher vendor information
  o Transformer vendor information
  o MV breaker vendor information
  o Standard schematics and panel wiring drawings
  o Relay settings

Work Package 1.1.5: Communication & SCADA Engineering

Scope: Communications and SCADA engineering will include integrating new protection equipment into the existing SCADA system. Review and validation of existing documentation will be performed along with creation/updates to the station communication block diagram, generation/updates to the points list and design of miscellaneous connections from relays to Panel 15 – Network.

Deliverables:
• IFC Communication Block Diagram
• Final Points List
• SCADA Internet Protocol Communications Parameters
• IFC Wiring Diagrams
• Construction Specification

Provided by Others:
• GCPUD will provide
  o Existing communication and SCADA drawings
  o RTU vendor information
  o SCADA programming

Work Package 1.1.6: Distribution Engineering

Scope: Distribution engineering will only include pulling calculations and material for QP22 and QP24. Design calculations will be for installation of distribution conductor from the substation riser, through the substation vault and into the field vault for each circuit.

Deliverables:
• Pulling Calculations
• Bill of Material

Provided by Others:
• N/A
Work Package 1.1.7: Project Site Closeout

**Scope:** Upon project site closeout, substation drawings will be updated to reflect construction as-left. The revised drawings will incorporate construction red lines, removal of unnecessary construction notes, and completion of title block revision. Completed drawings will be returned to the District’s system and control after a final drafting check.

**Deliverables:**
- Updated station drawings

**Provided by Others:**
- N/A

Work Package 1.2: Quincy Plains Substation Procurement

**Scope:** Design Builder shall complete the following Phase 1 long lead procurement deliverables

**Work Package 1.2.1: Civil Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None

**Work Package 1.2.2: Structural Procurements**

**Scope:** Structural procurement required for Quincy Plains substation will consist of structural steel and anchor bolts to support the interconnecting of new transformer bay QP20RT to the existing substation. It is expected that the bus support, CT supports, and low voltage structural steel will differ from the existing substation transformer bay lineup (And GCPUD standards) to accommodate the required 2000A tandem disconnect switches and the removal of the main position 15kV Cleveland disconnect switch.

Foundations and rebar as required for any new foundations or modification of foundations are included in the structural construction price (1.3.2).

Major Procurement Items:

*Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item*

- Distribution Rack x1 (QP20RT)
- 15KV Bus Support x1
- CT Feeder/Bus Tie Pedestals x6

**Deliverables:**
- Steel structures delivered to jobsite/laydown
- Anchor bolts and templates delivered to jobsite/laydown
- Final steel fabricator drawings (Non GCPUD Standard Structures)

**Provided By Others:**
- GCPUD will provide:
  - Steel stands for all GCPUD provided major equipment
Work Package 1.2.3: Physical Procurements

Scope: The physical procurement for Quincy Plains substation will consist of above and below grade conduit and grounding, substation bus, insulators, hardware and wiring/cable, and miscellaneous control house internals to support the installation of new distribution transformer lineup QP20RT.

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

- Circuit Switcher Including Stand x1 (GC245)
- 13.8KV Distribution Rack Bus, Wiring and Hardware (3” bus, various jumpers, disconnect switches, insulators, three (3) potential transformers)
- Three (3) current transformers x5 Installed on CT/Pedestals (QP22, QP24, QP25, QP26, QP28)
- 15kV 2000A VEE Switch x24
- 15kV 2000A Tandem Switch x24

Deliverables:

- Substation equipment delivered to jobsite
- Control enclosure panels delivered to jobsite
- Vendor data sheets and O&M manuals

Provided By Others:

- GCPUD will provide:
  - Circuit Switcher specification
  - MV Breakers

Work Package 1.2.4: P&C Procurements

Scope: The protection and controls procurement for Quincy Plains substation will consist of relay and meter racks along with control and power cable, terminations and miscellaneous control house material.

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

- Relay Rack 3 – Customer Meter Panel
- Relay Rack 4 – Power Transformer QP20RT
- Meter Rack 5 – Power Transformer QP20RT
- Panel 9 Loose Material – Per Drawing Package
- Power Quality Retrofit – Plate 14

Deliverables:

- Control enclosure panels delivered to jobsite
- Vendor data sheets and O&M manuals
Provided By Others:
- GCPUD will provide:
  - Protection and control panel specification

**Work Package 1.2.5: Communication & SCADA Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 1.3: Quincy Plains Substation Construction**

**Scope:** Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

**Work Package 1.3.1: Civil Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 1.3.2: Structural Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 1.3.3: Physical Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 1.3.4: P&C Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 1.3.5: Communication & SCADA Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None
Provided by Others: None
Work Group 2.0: Burke Substation

Project Site Description: Scope of work includes the complete rebuild of Burke Substation, replacing the existing main station and detached distribution yard with a new inclusive substation in one combined fenced area. The rebuilt substation sourced from Ancient Lake and Frenchman Hills transmission lines will allow ultimately eight (8) distribution circuits to reinforce the local area. Construction of the new station will be completed on District land adjacent to the existing station. The existing Burke substation and distribution yard will be demolished once the new site is energized except for the Control House, which will become a designated Fiber Hut.

The new Burke Substation will consist of an 115KV main transmission bus, and two (2) 25MVA distribution lineups with six (6) positions each. The transmission voltage section will include disconnect points for the transmission lines, transformer banks, and allocated mobile substation. Each distribution lineup will be powered from a 25MVA 115/13.8KV transformer and the lineups will attach to distribution bays each consisting of one (1) main position, one (1) bus tie position, and four (4) distribution circuit positions. Sanitary facilities will be installed on the property for District use.

The substation will also include a new control house with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers, automatic transfer switch and station control equipment. Station control equipment will consist of three (3) protection and control panels and two (2) communication panels. The 115kV equipment will be connected to two (2) protection and control panels for the power transformers, and one (1) bus auto sectionalizing panel. The feeder protection will be installed in the circuit breakers. The SCADA / communication panels consist of one (1) HMI “Human Machine Interface” and one (1) Network panel.

To integrate the new substation into the District’s system, the nearby transmission and distribution systems will be modified. The transmission system will require removal of three (3) poles and installation of three (3) new poles. Four (4) distribution circuits will be replaced by the new substation using underground circuits and vaults where feasible while minimizing overhead road crossings.

Work Package 2.1: Burke Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables

Work Package 2.1.1: Civil Engineering

Scope: The civil engineering required for Burke Substation includes the design development of the new substation platform on approximately 170’ x 213’of area near the existing Burke Substation. Included in the grading design for the pad is off-site detention basins for water runoff and an enclosed area within the substation for sanitary facilities. To reach the main access road to the new substation, a driveway entrance will be designed.

As part of the final demolition drawing package, indication for removal and salvage of existing station top rock will be noted and areas for final seed and straw will be provided.

Design will include:
- Grading substation platform - ~ 170’ x 213’
  - Surfacing Rock
  - Driveway
  - Detention Pond
Demolition Design:
- Existing surface rock to be salvaged as much as possible and area converted to parking
- Restoration of site

Deliverables:
- IFC Topographic Survey (Developed in Phase 1)
- Drawing Index Updates (Developed in Phase 1)
- IFC Erosion Control (Developed in Phase 1)
- IFC Initial Earthwork (Developed in Phase 1)
- IFC Final Grading (Developed in Phase 1)
- IFC Grading Details (Developed in Phase 1)
- IFC Final Site & Yard Construction (Developed in Phase 1)
- Construction Specification

Provided by Others:
- GCPUD will provide:
  - Existing Burke drawing set
  - Boundary Survey

Work Package 2.1.2: Structural Engineering

Scope: The structural engineering required for Burke substation will consist of developing fence/curb, foundation and structural steel drawings to support installation of substation equipment, bus, insulators and hardware including transmission equipment (dead-end, disconnect switch, potential transformers, circuit switches, bus supports), transformers, distribution (distribution rack, feeder pedestals, bus supports, circuit breakers), control house, and sanitary facility.

The design for the perimeter fence with barb wire and curb will include up to three (3) drive gates, two (2) walk through gates and an enclosed area for sanitary facilities that also includes two (2) walk through gates.

As part of the design package, demolition drawings will be created for removal of the existing substation fence and curb except around the existing control house which will be converted to a fiber hut. New substation fence will be designed for installation around the fiber hut such that security and access to only approved employees can be provided. Demolition drawings will also be provided that outline the removal of concrete foundations within the existing Burke and distribution substation areas. Deep foundations will be removed to four (4) feet below grade and shallow foundations will be removed completely.

Design will include:
- Foundations:
  - H-Frame (Transmission Dead-End) x2
  - Disconnect Switch x4
  - Bus Support – 115kV Single Stand x8
  - Potential Transformer - 115KV x2
  - Circuit Switcher x2
  - Transformer x2
  - Distribution Bay w/ circuit breakers x2
  - CT Feeder Pedestal – 13.8KV x10
  - Main Power Transformer - 13.8KV Bus Support x2
  - Control House x1
Sanitary Facility x1
Perimeter Concrete Curb x 1 & (Additional curbing – Fiber Hut)

Structural Steel:
H-Frame (Transmission Dead-End) x2
Disconnect Switch x4
Bus Support – 115KV Single Stand x8
Potential Transformer - 115KV x2
Circuit Switcher (Steel stand by Manufacturer) x2
Distribution Bay w/ circuit breakers x2
CT Feeder Pedestal - 13.8KV x10
Main Power Transformer - 13.8KV Bus Support x2

Perimeter Curb
Includes up to three (3) drive gates, two (2) man gates and an area for sanitary facilities with two (2) man gates

Demolition Design:
Foundations (Deep foundations removed to at least 4’ below grade and others completely removed)
Circuit Switcher x1 (GB1041) (Substation)
115kV Dead End x1 (Substation)
115KV Bus Pedestals x6 (Substation)
Transformer x1 (Substation)
13.8kV Rack x2 (Substation)
13.8kV Circuit Breaker x4 (Distribution Yard)
13.8kV Rack x8 (Distribution Yard)
Radio Tower x1
Perimeter Concrete Curb x1

Structural Steel
Circuit Switcher x1 (GB1041) by Manufacturer
115kV Dead End x1 (Substation)
115KV Bus Pedestals x6 (Substation)
13.8kV Rack x2 (Substation)
13.8kV Rack x8 (Distribution Yard)
Radio Tower x1

Perimeter Fence

Deliverables:
Demolition drawings
Drawing Index Updates
IFC Foundation Plan and details (Developed in Phase 1)
IFC Steel Plan (Developed in Phase 1)
IFC Structural Steel drawings and details (Developed in Phase 1)
IFC Dead-end performance / load trees
IFC Fence plan and details including concrete curb
Construction Specification
Calculations – (Developed in Phase 1)
Foundation
Structural Steel
Bus Span
Provided by Others:

- GCPUD will provide:
  - Transformer vendor drawings

**Work Package 2.1.3: Physical Engineering**

**Scope:** The physical engineering and design for Burke substation will consist of above and below grade conduit and grounding, substation general arrangement and elevation drawings and control house layouts and elevations to support the installation of the new Burke substation adjacent to the existing station that will be demolished. Construction assembly units will be finalized along with calculations to support all design activities. The new substation design will include integration of existing infrastructure and demolition of existing.

Design will include:
- H-Frame (Transmission Dead-End) x2 – Frenchman Hills, Ancient Lake
- Disconnect Switch w/ Interrupters x3 (GBXX1, GBXX4, GBXX6)
- Disconnect Switch w/ Motor Operator – (GBXX3)
- High Voltage Bus – 5” IPS
- 115kV Bus Supports x 8
- Potential Transformer - 115KV x2 (PT11, PT21)
- Circuit Switcher x2, S&C2010, 48VDC, 240VAC, 2000A (GBXX2, GBXX5)
- Transformer x2, 115-13.8KV 25MVA (B10RT, B20RT)
- 13.8KV Bus Support x1 (B11)
- Station Service Pedestal with mounted equipment - fuse holder x2, 50KVA power potential transformer, and meter (B21)
- 13.8KV Distribution Rack (3” bus, various jumpers, disconnect switches, three (3) potential transformers) w/ 6 – 2000A circuit breakers x2
- 13.8kV CT Feeder Pedestals with three (3) current transformers x10 (B12, B13, B14, B15, B16, B22, B23, B24, B25, B26)
- Control House with doors, outlets, lights, HVAC, 48VDC battery system, 120/240 VAC system x1
- Sanitary Facility x1
- Yard Lighting
- Ground Grid and grounding system including mobile transformer grounds
- Conduit between yard equipment and control enclosure
- Control cable, power cable, and fiber between yard equipment and control enclosure
- Signage – varies

Design Demolition (Burke and Distribution):
- Circuit Switcher x1 (GB1041) (Substation)
- 115kV Dead End x1 (Substation)
- 115KV Pedestals x6 (Substation)
- 13.8kV Rack x2 (Substation)
- 13.8kV Rack x8 (Distribution Yard)
- 13.8kV Circuit Breaker x4 (B5, B6, B7, B8)
- Misc. Bus, Hardware and Conductor
- Misc. Light poles
- Grounding – provide isolation from new substation and existing property
Cut grounding to below grade
  • Conduit to below grade
  • Radio Tower

Deliverables:
  • Drawing Index Updates
  • IFC General Arrangement (Developed in Phase 1)
  • IFC Elevations / Sections (Developed in Phase 1)
  • IFC Control House Layouts and Elevations (Developed in Phase 1)
  • IFC Conduit Plan & Details (Developed in Phase 1)
  • IFC Grounding Plan & Details (Developed in Phase 1)
  • Construction and Assembly Units (Developed in Phase 1)
  • IFC Lighting Plan (Developed in Phase 1)
  • Demolition Drawings
  • Construction Specification
  • WSDOT Hazardous Material Analysis Report (Environmental Site Assessment)

Calculations:
  o Grounding Study

Provided by Others:
  • GCPUD will provide:
    o Transformer vendor drawings
    o MV breaker vendor drawings
    o Existing go by station drawings
    o Alternate design for station service via local distribution system

Work Package 2.1.4: P&C Engineering
Scope: The protection and controls engineering and design for the new Burke substation will consist of the creation of panel layout drawings, AC/DC schematic updates, creation of conduit/cable schedules, yard interface wiring and a final bill of materials to support construction of the new Burke substation. All drawings will be finalized and issued for construction and final vendor drawings will be placed on GCPUD borders.

Design will include:
  • Relay Rack 5 – Transformer B10RT
  • Relay Rack 6 – Transformer B20RT
  • Relay Rack 7 – Bus Auto Sectionalizing
  • Circuit Breaker– B11, B12, B13, B14, B15, B16, B21, B22, B23, B24, B25, B26
  • Transformer Monitors - B10RT, B20RT

Design Demolition (Burke and Distribution)
  • Station Relay & Metering Panel (Existing Control House)
  • Alarm Patch Panel
  • Control and Power Cables

Deliverables:
  • Drawing Index Updates
  • IFC Cable schedule
• IFC One line drawing (Developed in Phase 1)
• IFC Protection Schematics
• IFC Panel layout drawings
• IFC Bill of material
• IFC AC & DC drawings
• Vendor drawings placed on GCPUD borders
• IFC Wiring Diagrams
• Construction Specification
• Calculations:
  o Conduit Fill
  o Voltage Drop
  o CT Saturation
  o AC Loading
  o DC Loading

Provided by Others:
• GCPUD will provide:
  o Transformer vendor information
  o MV breaker vendor information
  o Standard schematics and panel wiring drawings
  o Relay settings

Work Package 2.1.5: Communication & SCADA Engineering

Scope: Communications and SCADA engineering will include review and validation of existing documentation and the creation of panel layouts, wiring diagrams, a communication block diagram and a points list for the new Burke substation. The design will incorporate equipment that will provide remote access and control of the substation and information will be displayed on a Human Machine Interface (HMI) local to that station that can be shared with the District via a fiber optic network.

Design will include:
• Rack 1 – HMI (Human Machine Interface)
• Rack 2 – Network

Existing Burke Design:
• Substation Fiber – Design connection of new control house to existing control house (Fiber Hut) with fiber in new conduit designed as part of the physical design package. Pathway will be diverse.
• Fiber Hut Improvement – Design a diverse fiber pathway from fiber hut to existing fiber pole with riser.

Deliverables:
• Drawing Index Updates
• Validation of Existing Documentation
• IFC Communication Block Diagram
• Final Points List
• SCADA Internet Protocol Communications Parameters
• IFC Wiring Diagrams
• Construction Specification
Provided by Others:

- GCPUD will provide
  - Rack 3 – Telecom by GCPUD (If required)
  - Existing go by substation drawings
  - SCADA programming

**Work Package 2.1.6: Transmission Engineering**

**Scope:** Transmission line engineering for the new Burke substation will include validation of existing transmission line design and structure locations and the creation of new plan, profile and structure hardware and detail drawings to allow 115KV interconnection from the District’s transmission system to the new substation while disconnecting from the existing substation. A final bill of material will be provided.

Design and Demolition will include:

- Replace GB1084 switch and pole
- Replace pole west of GB1084 pole. (Immediately adjacent)
- Replace GB1040 pole. (GB1040 will be replaced with substation GXX6)
- Install new conductor.

**Deliverables:**

- IFC Plan & Profile Drawings
- IFC Staking sheets
- IFC Structure Geometry Drawings, Assembly Details
- IFC Laminated Pole Design
- IFC Bill of Material
- IFC Sag Tables
- IFC Grounding Details
- IFC Stringing Charts
- Construction Specification

Provided by Others:

- GCPUD will provide
  - Existing go by transmission line drawings

**Work Package 2.1.7: Distribution Engineering**

**Scope:** Distribution engineering for the new Burke substation will include the design for allowing new substation feeder circuits to replace existing distribution infrastructure. Specifically, new substation feeder circuits will be engineered from the risers at each low voltage distribution bay through conduits to distribution vaults located just outside of the substation fence. Design and installation of some circuits to replace existing will be performed and existing poles with fiber infrastructure will be retained.

Design will include:

- B13 – Substation riser, substation vault, field vault, new pole w/ riser. Interconnect to existing pole with OH transformer.
- B14 – Substation riser, substation vault, field vault, new pole w/riser. Interconnect to B13 pole. Design circuit north, crossing highway.
- B15 - Substation riser, substation vault – conduit, no cable.
- B16 - Substation riser, substation vault – conduit, no cable
- B22 - Substation riser, substation vault, riser to existing pole.
- B23 - Substation riser, substation vault – conduit, no cable
- B24 - Substation riser, substation vault, field vault, new pole w/ riser. Interconnect to existing pole.
- B25 – Substation riser, substation vault, field vault – conduit, no cable.
- Control House (Fiber Hut) – New distribution service from OH transformer.

Design Demolition:
- B5 – Design Demolition/Disconnect and replace with new circuit.
- B6 – Design Demolition/Disconnect and replace with new circuit.
- B7 – Design Demolition/Disconnect and replace with new circuit.
- B8 – Design Demolition/Disconnect and replace with new circuit.

Deliverables:
- IFC Feeder Getaway Drawings
- IFC Vault Detail Drawings
- IFC Riser Detail Drawings
- IFC Conduit Ductbank Drawings
- IFC Bill of Material
- IFC Calculations:
  - Pulling Calculations
  - Cable Ampacity Calculations

Provided By Others:
- GCPUD will provide
  - Existing go by distribution line drawings

**Work Package 2.1.8: Project Site Closeout**

**Scope:** Upon project site closeout, substation, transmission and distribution drawings will be updated to reflect construction as-left. The revised drawings will incorporate construction red lines, removal of unnecessary construction notes and completion of title block revisions. Completed drawings will be returned to the District’s system and control.

**Deliverables:**
- Updated station, transmission and distribution drawings

**Work Package 2.2: Burke Substation Procurement**

**Scope:** Design Builder shall complete the following long lead Phase 1 procurement deliverables

**Work Package 2.2.1: Civil Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None
Work Package 2.2.2: Structural Procurements

Scope: Structural procurement required for Burke substation will consist of the fence/curb, foundations, control house, anchor bolts/templates and structural steel to support installation of substation equipment, bus, insulators and hardware.

The new perimeter fence will have barb wire, curb and will include up to three (3) drive gates, two (2) walk through gates and an enclosed area for sanitary facilities that also includes two (2) walk through gates. A small section of new fence will also be procured for installation around the existing fiber hut.

Material for foundations, rebar, fence and concrete curb to be installed under the new substation fence are included in the structural construction price (2.3.2).

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

- H-Frame (Transmission Dead-End) x2
- Disconnect Switch Stand x4
- Bus Support Stand – 115KV Single Stand x8
- Potential Transformer Stand - 115KV x2
- Distribution Bay Steel x2
- CT Feeder/Bus Tie Pedestal Stands - 13.8KV x10
- Main Power Transformer - 13.8KV Bus Support Stands x2
- Control Enclosure
- Vaults x12

Deliverables:

- Steel structures delivered to jobsite/laydown
- Anchor bolts and templates delivered to jobsite/laydown
- Final steel fabricator drawings (For any non GCPUD standard structures)

Provided by Others:

- GCPUD will provide:
  - Steel stands/supports for all GCPUD provided major equipment

Work Package 2.2.3: Physical Procurements

Scope: The physical procurement for Burke substation will consist of above and below grade conduit and grounding, substation bus, insulators, hardware, wiring/cable and miscellaneous control house internals to support the installation of the new Burke substation adjacent to the existing station that will be demolished.

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

- Disconnect Switch w/ Interrupters x3 (GBXX1, GBXX4, GBXX6)
- Disconnect Switch w/ Motor Operator – (GBXX3)
- Potential Transformer - 115KV x2 (PT11, PT21)
• Circuit Switcher Including Stand x2, S&C2010, 48VDC, 240VAC, 2000A (GBXX2, GBXX5)
• Mounted Station Service Equipment - fuse holder x2, 50KVA power potential transformer, and meter (B21)
• Three (3) current transformers x10 on CT/Bus Tie Pedestals (B12, B13, B14, B15, B16, B22, B23, B24, B25, B26)

**Deliverables:**
- Substation equipment delivered to jobsite
- Vendor data sheets and O&M manuals

**Provided by Others:**
- GCPUD will provide:
  - Circuit Switcher specification
  - Main Power Transformers
  - MV Breakers
  - Station service secondary source (off site) transformer

**Work Package 2.2.4: P&C Procurements**

**Scope:** Not needed for Phase 1
**Deliverables:** None
**Provided by Others:** None

**Work Package 2.2.5: Communication & SCADA Procurements**

**Scope:** Communications and SCADA procurement will generally be performed as part of the
**Scope:** Not needed for Phase 1
**Deliverables:** None
**Provided by Others:** None

**Work Package 2.2.6: Transmission Procurements**

**Scope:** Not needed for Phase 1
**Deliverables:** None
**Provided by Others:** None

**Work Package 2.2.7: Distribution Procurements**

**Scope:** Not needed for Phase 1
**Deliverables:** None
**Provided by Others:** None
Work Package 2.3: Burke Substation Construction
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 2.3.1: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 2.3.2: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 2.3.3: Physical Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 2.3.4: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 2.3.5: Communication & SCADA Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 2.3.6: Transmission Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Group 3.0: Mountain View Cap Bank

Project Site Description: A new capacitor bank will be installed at the Mountain View Substation. The construction will consist of the following:

- 230 kV bus double bus double breaker configuration:
  - Install sixteen (16) 230 kV disconnect switches
  - Install four (4) 230 kV 3000A normal circuit breakers
  - Install six (6) 230 kV zero crossing detection breaker
  - Install one (1) 230 kV 80 MVAR capacitor bank (20/20/40) – Bay 11/12
  - Install one (1) 230 kV 100 MVAR capacitor bank (20/40/40) – Bay 19/20
  - Install one (1) rung (Bay 17/18) foundations for future buildout.
    - Five (5) 230 kV disconnect switches
    - Three (3) 230 kV 3000A normal circuit breakers
    - Two (2) 230 kV Potential Transformers
    - One (1) 230 kV Transmission Dead-end
    - Eight (8) 230 kV Bus Supports
- Perimeter Yard Lighting
  - A control enclosure unit measuring approximately 36 feet x 20 feet that is large enough for the entire transmission build out complete with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers and ATS will be installed. Also, two (2) protection and control panels for the new circuit breakers, one (1) protection and control panel for the new capacitor bank, and one (1) communication panel will be designed.

Notes:
1. The preliminary layout provided is subject to change but will be similar in nature. The new cap bank may be located west of the existing transformers.
2. The proposed in service date is driven by projected load growth in the Quincy Area which is subject to change. The in service date will be finalized during Phase 1.
3. Rough grading at the site has been completed.
4. The District owns the project property.
5. Work will be performed in or adjacent to a live yard.
6. The District does not commonly design and construct HV Capacitor banks. The District is currently developing a new HV Capacitor Specification. The Design-Builder will work with District Staff to develop an approved design for the site.

Work Package 3.1: Mountain View Cap Bank Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GMP pricing.

Work Package 3.1.1: Civil Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:
- IFC – Fencing drawings and details
- IFC - Aggregate drawings and details
- IFC – Grading plan
Provided by Others:
- GCPUD will provide:
  - Existing site civil drawings

Work Package 3.1.2: Structural Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
- Review / validate existing documentation
- Preliminary - Foundation design
- Preliminary - Steel Drawings and Details
- Calculations – (as needed)

Provided by Others:
- GCPUD will provide:
  - Existing foundation and steel drawings
  - Capacitor bank sizing
  - Existing geotechnical report

Work Package 3.1.3: Physical Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
- Review / validate existing documentation
- Preliminary - General Arrangement
- Preliminary - Elevations / Sections
- Preliminary - Control House Layouts and Elevations
- Preliminary – Conduit Plan Revisions
- Preliminary – Conduit Plan Details
- Preliminary – Construction and Assembly Units
- Preliminary – Grounding Plans and Details
- Preliminary – Shielding Plan
- Calculations – (as needed)

Provided by Others:
- GCPUD will provide
  - Existing physical drawings
  - Existing grounding study

Work Package 3.1.4: P&C Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
- Review / validate existing documentation
- IFB – Panel layout drawings
- Preliminary – AC & DC drawing updates
• Preliminary – Cable schedule
• Preliminary – Bill of material
• Preliminary – One line
• Preliminary – AC & DC Schematics
• Place vendor drawings on GCPUD borders

Provided by Others:
• GCPUD will provide
  o Existing P&C drawings

Work Package 3.1.5: Communication & SCADA Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary – Communication block diagram
• Preliminary – Points list

Provided by Others:
• GCPUD will provide
  o Existing communication and SCADA drawings
  o RTU vendor information

Work Package 3.1.6: Project Site Closeout
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2: Mountain View Cap Bank Substation Procurement
Scope: Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

Work Package 3.2.1: Civil Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.2: Structural Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Package 3.2.3: Physical Procurements
Scope: Not needed for phase 1
Deliverables: None

Provided by Others:
- GCPUD will provide
  - Capacitor sizing

Work Package 3.2.4: P&C Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.5: Communication & SCADA Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.3: Mountain View Cap Bank Construction
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 3.3.1: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.2: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.3: Physical Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.4: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.5: Communication & SCADA Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Group 3.0A: Mountain View Mobil Tap
Project Site Description: Scope of work includes upgrading two (2) transmission rungs to accept mobile substations. Rungs 17/18 and 15/16 will be upgraded with bus, disconnect switches and static masts and rung 15 will also include installation of a station dead-end for a line termination.

Two (2) Joint Access Zones “JAZ” will be installed on the western side of the property for access by the customer and the District to coincide with two of the line-up/mobile substations.

Work Package 3.1A: Mountain View Mobil Tap Engineering
Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 3.1.1A: Civil Engineering
Scope: The existing substation site is fully developed and does not require grading or drainage civil engineering or design. As part of the civil construction, portions within the substation that are disturbed will be cleaned-up/re-rocked and areas outside of the substation will be seeded and strawed as necessary.

The civil engineering required for the Joint Access Zones includes the design development of property near the west gate. Included in the grading design for the pad (60’x60’) is a drive access, fencing with two (2) drive gates and two (2) walk gates.

Design will include:
- JAZ grading substation platform - ~ 60’ x 60’
  - Surfacing Rock
  - Driveway Access x 2
  - Fencing with Two (2) Drive Gates and Two (2) Walk Gates

Deliverables:
- IFC Topographic Survey (Developed in Phase 1)
- Drawing Index Updates (Developed in Phase 1)
- IFC Erosion Control (Developed in Phase 1)
- IFC Grading Plans & Section (Developed in Phase 1)
- IFC Fence Plan & Details (Developed in Phase 1)
- Construction Specification

Provided by Others:
• GCPUD will provide:
  o Existing Mountain View drawing set and calculations
  o Boundary Survey
  o Existing geotechnical report

**Work Package 3.1.2A: Structural Engineering**

**Scope:** The structural engineering required for Mountain View substation Joint Access Zones (JAZ) will consist of developing foundation and structural steel drawings to support new rungs 15/16, 17/18 and expansion of the existing main bus. Design for additional lightning protection in the form of a new masts will be required.

Design will include:

**Foundations**
- 230KV Low Disconnect Switch x4
- 230KV High Disconnect Switch x4
- 230KV Circuit Breaker x 6
- 230KV Bus Support Three Phase Diagonal x4
- 230KV Bus Support Three Phase Diagonal x4
- Static Mast x3
- 230KV Transmission Dead-End x1

**Structural Steel**
- 230KV Low Disconnect Switch x4
- 230KV High Disconnect Switch x4
- 230KV Bus Support Three Phase Diagonal x4
- 230KV Bus Support Three Phase Diagonal x4
- 230KV Transmission Dead-End x1
- Static Mast x3

**JAZ Installation**
- 13.8KV JAZ Feeder Pedestal x4
- 13.8KV JAZ Switch Stand x2

**Deliverables:**
- Drawing Index Updates
- IFC Foundation Plan and Details (Developed in Phase 1)
- IFC Structural Steel Plan (Developed in Phase 1)
- IFC Structural Steel Drawings and Details (Developed in Phase 1)
- IFC Dead-end Performance / Load Trees
- Construction Specification
- Calculations – (Developed in Phase 1)
  o Foundation
  o Structural Steel
  o Bus Span

**Provided by Others:**
- GCPUD will provide:
  o Breaker vendor drawings
  o Existing Mountain View drawing set and calculations
Work Package 3.1.3A: Physical Engineering

Scope: The physical engineering and design for Mountain View Substation Joint Access Zones (JAZ) will consist of above and below grade conduit and grounding and substation general arrangement and elevations to support the connection of mobile substations, distribution line-up and transmission line. The current design will not require connection to a control house at this time although conduits will be stubbed out for future connections.

Construction assembly units will be finalized along with calculations to support all design activities.

The new substation design will include integration of existing infrastructure.

Design will include:

- 230KV Low Disconnect Switch x4
- 230KV High Disconnect Switch x4
- 230KV Bus Support Three Phase Diagonal x4
- 230KV Bus Support Three Phase Diagonal x4
- 230KV Transmission Dead-End x1
- Static Mast x4
- Grounding Tails and Mobile Substation grounding infrastructure
- Conduit for Lighting

Deliverables:

- Drawing Index Updates
- IFC General Arrangement (Developed in Phase 1)
- IFC Elevations / Sections (Developed in Phase 1)
- IFC Conduit Plan & Details (Developed in Phase 1)
- IFC Grounding Plan & Details (Developed in Phase 1)
- IFC Construction and Assembly Units (Developed in Phase 1)
- IFC Lighting Plan (Developed in Phase 1)
- Construction Specification
- Calculations:
  - Grounding Study

Provided by Others:

- GCPUD will provide:
  - Existing Mountain View Station Drawings
  - MV breaker vendor drawings

Work Package 3.1.4A: P&C Engineering

Scope: Protection and control design for Mountain View Joint Access Zones (JAZ) will not be required including connection to the existing system.

Deliverables:

- Single Line Diagram (Developed in Phase 1)
- Vendor Drawings (Developed in Phase 1)
- Construction Specification

Provided by Others:

- GCPUD will provide:
Existing Mountain View Station drawings

**Work Package 3.1.5A: Communication & SCADA Engineering**

**Scope:** SCADA and communication design for Mountain View Joint Access Zones (JAZ) will not be required including connection to the existing system.

**Deliverables:**
- N/A

**Provided by Others:**
- N/A

**Work Package 3.1.6A: Project Site Closeout**

**Scope:** Upon project site closeout, substation, transmission and distribution drawings will be updated to reflect construction as-left. The revised drawings will incorporate construction red lines, removal of unnecessary construction notes and completion of title block revisions. Completed drawings will be returned to the District’s system and control.

**Deliverables:**
- Updated station, transmission and distribution drawings

**Provided by Others:**
- N/A

**Work Package 3.2A: Mountain View Mobil Tap Procurement**

**Scope:** Design Builder shall complete the following long lead Phase 1 procurement deliverables

**Work Package 3.2.1A: Civil Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None

**Work Package 3.2.2A: Structural Procurements**

**Scope:** Structural procurement required for Mountain View Substation Tap will consist of the fence/curb, foundations, anchor bolts/templates and structural steel to support installation of substation equipment, bus, insulators and hardware.

The new perimeter fence will have barb wire, curb and will include up to two (2) drive gates and two (2) walk through gates.

Material for foundations, rebar, fence and concrete curb to be installed under the new substation fence are included in the structural construction price (3.3.2).

**Major Procurement Items:**

*Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item*

- 230kV Low Disconnect Switch x4
• 230kV High Disconnect Switch x 4
• 230kV Bus Support Three Phase Diagonal x4
• 230kV Bus Support Three Phase Diagonal x4
• 230kV Transmission Dead-End x1
• Static Mast x3
• 13.8kV JAZ Feeder Pedestal x
• 13.8kV JAZ Switch Stand x2

Deliverables:

• Steel structures delivered to jobsite/laydown
• Anchor bolts and templates delivered to jobsite/laydown
• Final steel fabricator drawings (For any non GCPUD standard structures)

Provided By Others:

• GCPUD will provide:
  o Steel stands/supports for all GCPUD provided major equipment

Work Package 3.2.3A: Physical Procurements

Scope: The physical procurement for Mountain View Substation Tap will consist of above and below grade conduit and grounding, substation bus, insulators, hardware and wiring/cable to support the installation of the new Joint Access Zone (JAZ) including the connection of mobile substations, distribution line-up and transmission line near the west gate of the existing substation. The current design and procurement will not require connection to the existing control house

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

• 230kV Low Disconnect Switch x4
• 230kV High Disconnect Switch x4

Deliverables:

• Vendor data sheets

Provided by Others:

• N/A

Work Package 3.2.4A: P&C Procurements

Scope: Not needed for Phase 1

Deliverables: None

Provided by Others: None

Work Package 3.2.5A: Communication & SCADA Procurements

Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.3A: Mountain View Mobil Tap Construction
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 3.3.1A: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.2A: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.3A: Physical Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.4A: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 3.2.5A: Communication & SCADA Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Group 4.0: Cyrus One Substation (Baird Springs)

Project Site Description: Cyrus One is a project name for a new substation that will provide service to a new District customer. This substation still requires the District to issue its permanent name. The substation site will be approximately 375’ x 625’ and will accommodate four (4) lineups with transmission isolation equipment and a Joint Access Zone (JAZ) as a demarcation point between the District and customer. A nearby 230kV transmission line circuit will provide the source to this substation. The transmission circuit within the substation will be rigid bus to accommodate transmission line sectionalizing capability. The initial build will only consist of one (1) fully built out lineup. The following is a high level description of the equipment required for this design.

- Three (3) transmission single circuit steel foundation structures
- Twelve (12) 230 kV 3000A ganged operated disconnect switches for transmission sectionalizing
- Rigid bus and support structures required for the installation of the 230kV sectionalizing equipment
- One (1) 230 kV 2000A circuit switcher
- One (1) 41 MVA 230/13.8 kV transformer
- One (1) 15kV standard rack with two (2) 15kV 1200A feeder breakers and two (2) 15kV 2000A breakers for transformer and bus tie connections
- Installation of control enclosure unit measuring approximately 53 feet x 20 feet complete with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, batteries, battery chargers and automatic transfer switch (ATS). This initial design will require one (1) protection and control panel for the power transformer, one (1) SCADA panel, (1) network panel and one (1) telecommunication panel.
- Foundations for future expansion are part of this scope of work
- Proposed In-Service Date = 12/30/2021
- Outage Constraints = The transmission circuit sourcing the new substation will require an outage to incorporate the new substation into the District’s transmission system. District will require close coordination with its customers served from this transmission circuit to help them understand the outage timing and duration.

Work Package 4.1: Cyrus One Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 4.1.1: Civil Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Preliminary - Grading plan and details
- Preliminary - Drainage plan and details
- Preliminary - Erosion control plan
- Preliminary - Site surfacing plan
- Topographic survey
- Preliminary - Calculations
Provided by Others:

- GCPUD will provide:
  - Customer’s property survey

**Work Package 4.1.2: Structural Engineering**

*Scope:* Design Builder will develop the following design to support the GMP pricing.

*Deliverables:*

- Preliminary – Foundation plans and details
- Preliminary – Structural steel drawings and details
- Preliminary – Dead end performance / load trees
- Preliminary – Fence plan and details
- Perform – Geotechnical study and report
- Calculations

Provided by Others: None

**Work Package 4.1.3: Physical Engineering**

*Scope:* Design Builder will develop the following design to support the GMP pricing.

*Deliverables:*

- Preliminary - General Arrangement
- Preliminary – Elevations / Sections
- Preliminary – Control House Layouts and Elevations
- Preliminary – Conduit Plan
- Preliminary – Conduit Plan Details
- Preliminary – Construction and Assembly Units
- Preliminary – Grounding Calculations
- Preliminary – Lighting Plan
- WSDOT Hazardous Material Analysis Report (Environmental Site Assessment)
- Calculations

Provided by Others:

- GCPUD will provide
  - Existing go by substation drawings

**Work Package 4.1.4: P&C Engineering**

*Scope:* Design Builder will develop the following design to support the GMP pricing.

*Deliverables:*

- Preliminary – Panel layout drawings
- Preliminary – One line
- Preliminary – Station service one line

Provided by Others:

- GCPUD will provide existing go by substation drawings
Work Package 4.1.5: Communication & SCADA Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:
- Preliminary – Communication block diagram
- Preliminary – Points list

Provided by Others:
- GCPUD will provide
  - Existing go by substation drawings

Work Package 4.1.6: Transmission Line Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables: None

Provided by Others:
- Existing Transmission Drawings

Work Package 4.1.7: Project Site Closeout
Scope: Not needed for Phase 1

Deliverables: None

Provided by Others: None

Work Package 4.2: Cyrus One Substation Procurement
Scope: Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

Work Package 4.2.1: Civil Procurements
Scope: Not needed for Phase 1

Deliverables: None

Provided by Others: None

Work Package 4.2.2: Structural Procurements
Scope: Not needed for Phase 1

Deliverables: None

Provided by Others: None

Work Package 4.2.3: Physical Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.2.4: P&C Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.2.5: Communication & SCADA Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.2.6: Transmission Line Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.3: Cyrus One Substation Construction**
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

**Work Package 4.3.1: Civil Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.3.2: Structural Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 4.3.3: Physical Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Package 4.3.4: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 4.3.5: Communication & SCADA Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 4.3.6: Transmission Line Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Group 5.0: Red Rock Substation

Project Site Description: The new Red Rock Substation will consist of a circuit switcher tapping a 115kV transmission circuit in an in-out configuration. 115kV will be strain buss throughout. The initial build will consist of

- a single line up with a 41 MVA 115/13.8 kV transformer (RR10RT).
- One (1) 115kV disconnect switch,
- one (1) 115kV circuit switcher, and
- one (1) 13.2 kV standard rack with six (6) 13.2 kV, 1200A feeder breakers and two (2) 13.2 kV 2000A breakers for transformer and bus tie connections.
- Foundations, ground grid, and conduit for a future second lineup will be included in this scope of work. A control enclosure unit measuring approximately 36 feet x 20 feet complete with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers and ATS will be installed. Also, three (3) protection and control panels for the 115kV equipment, two (2) protection and control panels for the power transformers, and one (1) communication panel will be designed.

Notes:

1. Energizing this project is dependent upon the completion of the new 115kV breaker at Frenchman Hills and the new Red Rock Transmission line.
2. The proposed in service date is driven by a large manufacturing customer. The Design-Builder will work with the District to finalize the in service date based on the final load ramp rate for the customer. There will be possible temporary load service options for the customer from the Royal Substation rebuild project that will need to be considered.
3. This is a green field site. The District owns the substation property.
4. The project schedule will need to include 4 to 5 weeks at the end for the District complete Testing and Commissioning.
5. The final design will need to include space for a mobile substation with a connection point between the two substation lineups.
6. The District has well established standards for Distribution substations including stock material, layout and standard designs for foundations and steel. The Design-Builder will work with the District to ensure that all standard elements have been included. Opportunities for innovation are encouraged to be discussed.

Work Package 5.1: Red Rock Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 5.1.1: Civil Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Preliminary - Grading plan and details
- Preliminary - Drainage plan and details
• Preliminary - Erosion control plan
• Preliminary - Site surfacing plan
• Preliminary - Calculations

Provided by Others:
• GCPUD will provide:
  o Existing topographic survey
  o Existing property survey

Work Package 5.1.2: Structural Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Preliminary – Foundation plans and details
• Preliminary – Structural steel drawings and details
• Preliminary – Dead end performance / load trees
• Preliminary – Fence plan and details
• Perform – Geotechnical study and report
• Calculations

Provided by Others: None

Work Package 5.1.3: Physical Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary - General Arrangement
• Preliminary – Elevations / Sections
• Preliminary – Control House Layouts and Elevations
• Preliminary – Conduit Plan
• Preliminary – Conduit Plan Details
• Preliminary – Construction and Assembly Units
• Preliminary – Grounding Calculations
• Preliminary – Lighting Plan
• WSDOT Hazardous Material Analysis Report (Environmental Site Assessment)
• Calculations

Provided by Others:
• GCPUD will provide existing go by substation drawings

Work Package 5.1.4: P&C Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary – Panel layout drawings
• Preliminary – One line
• Preliminary – Station service one line

Provided by Others:
• GCPUD will provide
  o Existing go by substation drawings

**Work Package 5.1.5: Communication & SCADA Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Review / validate existing documentation
- Preliminary – Communication block diagram
- Preliminary – Points list

Provided by Others:
- GCPUD will provide
  o Existing go by substation drawings

**Work Package 5.1.6: Distribution Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Preliminary - Conduit Routing
- Preliminary – Bill of Material

Provided by Others: None

**Work Package 5.1.7: Project Site Closeout**

**Scope:** Not needed for Phase 1

**Deliverables:** None

Provided by Others: None

**Work Package 5.2: Red Rock Substation Procurement**

**Scope:** Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

**Work Package 5.2.1: Civil Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

Provided by Others: None

**Work Package 5.2.2: Structural Procurements**

**Scope:** Not needed for Phase 1
Work Package 5.2.3: Physical Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.2.4: P&C Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.2.5: Communication & SCADA Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.2.6: Distribution Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.3: Red Rock Substation Construction
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 5.3.1: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.3.2: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Package 5.3.3: Physical Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.3.4: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 5.3.5: Communication & SCADA Construction
  • Scope: Not needed for Phase 1
  • Deliverables: None
  • Provided by Others: None

Work Package 5.3.6: Distribution Construction
  • Scope: Not needed for Phase 1
  • Deliverables: None
  • Provided by Others: None
Work Group 6.0: Frenchman Hill Substation

Project Site Description: Project will include the complete build out of bay GB2010 for new Red Rock Transmission Line terminating Frenchman Hills Substation, which is a main and transfer 115kV bay.

- A-Frame (Transmission Dead-End) x1
- Disconnect Switch x3
- Bus Support – 230kV Three Phase Stand x2
- Bus Support – 230kV Three Phase Stand (Diagonal) x2
- Potential Transformer - 115KV x 1
- 115kV Circuit Breaker x 1

In addition to the new bay the work includes replacement of protection and control for Autotransformer FH1RT, all of the 115kV equipment and the SCADA. Construction of the new bay will be completed in the existing yard. The substation will also include upgrades inside the existing control house including best battery selector switches seven (7) protection and control panel and two (2) communication panels. The SCADA / communication panels consist of one (1) HMI “Human Machine Interface” and one (1) Network panel.

Notes:
1. Work will occur within an energized substation.
2. Schedule will need to consider dependencies with Red Rock Transmission Line and Red Rock Substation.
3. A short duration outage to connect the new equipment to the existing bus will be required and must be coordinated with District staff.
4. The project schedule will need to include time at the end for the District to complete Testing and Commissioning.
5. The existing site has adequate space to install the new breaker.
6. Scope of work within existing control house will be determined during phase 1.

Work Package 6.1: Frenchman Hills Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 6.1.1: Civil Engineering

Scope: There is no civil engineering required for this project site.

Deliverables: None

Provided by Others: None

Work Package 6.1.2: Structural Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:
- Review / validate existing documentation
- Preliminary – Foundation drawing and details
• Preliminary - Steel Drawings and Details – (pending final vendor information)
• Calculations – (as needed)

Provided by Others:
• GCPUD will provide:
  o Existing foundation and steel drawings
  o Existing geotechnical report

Work Package 6.1.3: Physical Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary - General Arrangement
• Preliminary - Elevations / Sections
• Preliminary - Control House Layouts and Elevations
• Preliminary – Conduit Plan Revisions
• Preliminary – Conduit Plan Details
• Preliminary – Construction and Assembly Units
• Calculations – (as needed)

Provided by Others:
• GCPUD will provide
  o Existing physical drawings
  o Existing grounding study

Work Package 6.1.4: P&C Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary – Panel layout drawings
• Preliminary – AC & DC drawing updates
• Preliminary – Cable schedule
• Preliminary – Bill of material
• Preliminary – One line
• Preliminary – AC & DC Schematics

Provided by Others:
• GCPUD will provide
  o Existing P&C drawings

Work Package 6.1.5: Communication & SCADA Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Review / validate existing documentation
• Preliminary – Communication block diagram
• Preliminary – Points list

Provided by Others:
• GCPUD will provide
  o Existing communication and SCADA drawings
  o RTU vendor information

Work Package 6.1.6: Project Site Closeout
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.2: Frenchman Hills Substation Procurement
Scope: Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

Work Package 6.2.1: Civil Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.2.2: Structural Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.2.3: Physical Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.2.4: P&C Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.2.5: Communication & SCADA Procurements
Scope: Not needed for Phase 1
Deliverables: None
Work Package 6.3: Frenchman Hills Substation Construction

Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 6.3.1: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.3.2: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.3.3: Physical Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.3.4: P&C Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 6.3.5: Communication & SCADA Construction
- Scope: Not needed for Phase 1
- Deliverables: None
- Provided by Others: None
Work Group 7.0: Red Rock Transmission Line

**Project Site Description:** The Red Rock Transmission Line will consist of building approximately 10 miles of 115kV transmission line from Frenchman Hills Substation to the new Red Rock Substation.

- Proposed In-Service Date = 12/30/2021
- Outage Constraints = None at this time

**Notes:**
1. The District is currently performing a line route selection process which is scheduled to be completing in early 2020.
2. The District expects to self-perform the permitting and easement work.
3. The Design-Builder will provide line design information as required to support the permitting and easement process.
4. See Red Rock Substation notes for comments regarding the in service date.
5. The District has several examples of recent 115kV line construction with standard assembly units that will be shared with the Design-Builder during Phase 1.

Work Package 7.1: Red Rock Transmission Line Engineering

**Scope:** Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

**Work Package 7.1.1: Transmission Line Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Preliminary – Line Design
- Preliminary – Plan & Profile
- Preliminary – Staking sheets
- Conduct survey

**Provided by Others:**
- GCPUD will provide:
  - Route selection

**Work Package 7.1.2: Structural Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Preliminary – Structure Geometry Drawings
- Preliminary – Foundation design
- Perform – Geotechnical study and report
- Calculations
Provided by Others: None

**Work Package 7.1.3: Project Site Closeout**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 7.2: Red Rock Transmission Line Procurement**

**Scope:** Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

**Work Package 7.2.1: Transmission Line Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None  

**Work Package 7.2.2: Structural Procurements**

**Scope:** Not needed for Phase 1  

**Deliverables:** None  
**Provided by Others:** None

**Work Package 7.3: Red Rock Transmission Line Construction**

**Scope:** Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

**Work Package 7.3.1: Transmission Line Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None  

**Work Package 7.3.2: Structural Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None
Work Group 8.0: South Ephrata Substation

Project Site Description: The South Ephrata Substation will be a greenfield substation. The construction will consist of the following:

- Substation transformer bays:
- One (1) 115kV circuit switcher with integrated disconnect switch
- One (1) 25 MVA, 115-13.8 kV transformer with LTC
- One (1) 13.2 kV 1200A main bus breaker
- One (1) 13.2 kV standard rack with four (4) 1200A feeder breakers
- One (1) 13.2 kV 1200A bus tie breaker

The foundations, ground grid, and conduit for future expansion for a second transformer bay will be included in this scope of work. A control enclosure unit measuring approximately 36 feet x 20 feet complete with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers and ATS will be installed. Also, three (3) protection and control panels for the 115kV equipment, two (2) protection and control panels for the power transformers, and one (1) communication panel will be designed.

Demolish existing South Ephrata Substation.

Notes:

1. The in service date for South Ephrata substation is flexible. The project is driven by a need for increased reliability but does not generally affect the District’s ability to serve load.
2. This is a green field site. The District owns the substation property.
3. The project schedule will need to include 4 to 5 weeks at the end for the District complete Testing and Commissioning.
4. The site will require extensive fill.
5. See the South Ephrata Ring Bus notes below for additional information.
6. The District has well established standards for Distribution substations including stock material, layout and standard designs for foundations and steel. The Design-Builder will work with the District to ensure that all standard elements have been included. Opportunities for innovation are encouraged to be discussed.

Work Package 8.1: South Ephrata Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 8.1.1: Civil Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Site Survey
- Preliminary - Grading plan and details
- Preliminary - Drainage plan and details
• Preliminary - Erosion control plan
• Preliminary - Site surfacing plan
• Calculations

Provided by Others:

• GCPUD will provide:
  o Existing topographic survey
  o Existing property survey

Work Package 8.1.2: Structural Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

• Preliminary - Foundation plans and details
• Preliminary - Structural steel drawings and details
• Preliminary - Dead end performance / load trees
• Preliminary - Fence plan and details
• Perform – Geotechnical study and report
• Calculations

Provided by Others:

• GCPUD will provide:
  o Transformer vendor drawings

Work Package 8.1.3: Physical Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

• Preliminary - General Arrangement
• Preliminary - Elevations / Sections
• Preliminary - Control House Layouts and Elevations
• Preliminary - Conduit Plan
• Preliminary - Conduit Plan Details
• Preliminary - Construction and Assembly Units
• Preliminary - Grounding Calculations
• Preliminary - Lighting Plan
• Preliminary Demolition Drawings
• WSDOT Hazardous Material Analysis Report (Environmental Site Assessment)Calculations

Provided by Others:

• GCPUD will provide
  o Existing go by substation drawings
  o Transformer vendor drawings
  o MV breaker vendor drawings

Work Package 8.1.4: P&C Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Preliminary – Panel layout drawings
• Preliminary – AC & DC drawing updates
• Preliminary – Cable schedule
• Preliminary – Bill of material
• Preliminary - One line
• Preliminary - AC & DC Schematics
• Place vendor drawings on GCPUD borders

Provided by Others:
• GCPUD will provide
  o Transformer vendor information
  o MV breaker vendor information

Work Package 8.1.5: Communication & SCADA Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Preliminary – Communication block diagram
• Preliminary – Points list

Provided by Others:
• GCPUD will provide
  o Existing go by substation drawings

Work Package 8.1.6: Distribution Engineering
Scope: Design Builder will develop the following design to support the GMP pricing.
Deliverables:
• Preliminary – Conduit Routing
• Preliminary – Bill of Material

Provided by Others:
• GCPUD will provide
  o Existing distribution drawings

Work Package 8.1.8: Project Site Closeout
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 8.2: South Ephrata Substation Procurement
Scope: Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.
**Work Package 8.2.1: Civil Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.2.2: Structural Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.2.3: Physical Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.2.4: P&C Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.2.5: Communication & SCADA Procurements**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.2.6: Distribution Procurement**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3: South Ephrata Substation Construction**
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

**Work Package 8.3.1: Civil Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3.2: Structural Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3.3: Physical Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3.4: P&C Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3.5: Communication & SCADA Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 8.3.6: Distribution Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Group 9.0: South Ephrata Ring Bus

Project Site Description: The South Ephrata Ring Bus will be greenfield construction adjacent to the new South Ephrata Substation. It will include a four position 115kV ring bus, with three breakers installed initially. The construction will consist of the following:

- Ring Bus:
  - Four (4) 115kV circuit breakers
  - Eight (8) 115kV disconnect switches
  - Nine (9) 115kV CCVTs

A control enclosure unit measuring approximately 36 feet x 20 feet complete with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers and ATS will be installed. Also, three (3) protection and control panels for the 115kV circuit breakers and one (1) communication panel will be designed.

Notes:
1. See South Ephrata Substation notes for additional information.
2. The Design-Builder may propose to combine the control house for the ring bus and substation or install separate buildings.
3. The transmission tap structures have already been installed and will need to be considered in the site layout.
4. The in service date is flexible. See South Ephrata Substation notes.
5. The District does not have any existing examples of ring bus designs on its current transmission system. The Design-Builder will work with District Staff to develop an approved design. The District will provide an approved 115kV breaker specification.
6. The project schedule will need to include time for the District to complete testing and commissioning and the end.

Work Package 9.1: South Ephrata Ring Bus Engineering

Scope: Design Builder shall complete the following engineering deliverables to support the phase 1 and GPM pricing.

Work Package 9.1.1: Civil Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:
- Site Survey
- Preliminary - Grading plan and details
- Preliminary - Drainage plan and details
- Preliminary - Erosion control plan
- Preliminary - Site surfacing plan
- Calculations

Provided by Others:
- GCPUD will provide:
  - Existing topographic survey
  - Existing property survey
Work Package 9.1.2: Structural Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Preliminary - Foundation plans and details
- Preliminary - Structural steel drawings and details
- Preliminary - Dead end performance / load trees
- Preliminary - Fence plan and details
- Perform – Geotechnical study and report
- Calculations

Provided by Others:

- GCPUD will provide: None

Work Package 9.1.3: Physical Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Preliminary - General Arrangement
- Preliminary - Elevations / Sections
- Preliminary - Control House Layouts and Elevations
- Preliminary - Conduit Plan
- Preliminary - Conduit Plan Details
- Preliminary - Construction and Assembly Units
- Preliminary - Grounding Calculations
- Preliminary - Lighting Plan
- Calculations

Provided by Others:

- GCPUD will provide
  - Existing go by substation drawings

Work Package 9.1.4: P&C Engineering

Scope: Design Builder will develop the following design to support the GMP pricing.

Deliverables:

- Preliminary – Panel layout drawings
- Preliminary – AC & DC drawing updates
- Preliminary – Cable schedule
- Preliminary – Bill of material
- Preliminary - One line
- Preliminary - AC & DC Schematics
- Place vendor drawings on GCPUD borders

Provided by Others:

- GCPUD will provide
Existing go by substation drawings

**Work Package 9.1.5: Communication & SCADA Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Preliminary – Communication block diagram
- Preliminary – Points list

**Provided by Others:**
- GCPUD will provide
  - Existing go by substation drawings

**Work Package 9.1.6: Transmission Engineering**

**Scope:** Design Builder will develop the following design to support the GMP pricing.

**Deliverables:**
- Preliminary – Plan and Profile Drawings
- Preliminary – Bill of Material

**Provided by Others:**
- GCPUD will provide
  - Existing transmission drawings

**Work Package 9.1.7: Project Site Closeout**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None

**Work Package 9.2: South Ephrata Ring Bus Procurement**

**Scope:** Design Builder shall complete the following procurement deliverables to support the phase 1 and GPM pricing.

**Work Package 9.2.1: Civil Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None

**Work Package 9.2.2: Structural Procurements**

**Scope:** Not needed for Phase 1

**Deliverables:** None

**Provided by Others:** None
**Work Package 9.2.3: Physical Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.2.4: P&C Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.2.5: Communication & SCADA Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.2.6: Transmission Procurements**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.3: South Ephrata Ring Bus Construction**

**Scope:** Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

**Work Package 9.3.1: Civil Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.3.2: Structural Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None  
**Provided by Others:** None

**Work Package 9.3.3: Physical Construction**

**Scope:** Not needed for Phase 1  
**Deliverables:** None
Provided by Others: None

**Work Package 9.3.4: P&C Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 9.3.5: Communication & SCADA Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 9.3.6: Transmission Construction**
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None
Work Group 10.0: Royal City Substation

Project Site Description: Scope of work includes the complete rebuild of Royal Substation, replacing the existing substation yard. The rebuilt substation will ultimately allow eight (8) distribution circuits to reinforce the local area. Construction of the new station will be completed on District land adjacent to the existing station. The existing Royal substation will be demolished once the new site is energized except for the Fiber Hut.

The new Royal Substation will consist of an 115KV main transmission bus, and two (2) 25MVA distribution lineups with six (6) positions each. The transmission voltage section will include disconnect points for the transmission lines, transformer banks, and allocated mobile substation. Each distribution lineup will be powered from a 25MVA 115/13.8KV transformer, total two (2). The lineups will attach to distribution bays each consisting of one (1) main position, one (1) bus tie position, and four (4) distribution circuit positions. Sanitary facilities will be installed on the property for District use.

The substation will also include a new control house with associated AC and DC panels, HVAC, lighting, cable tray, smoke detectors, battery and battery chargers, automatic transfer switch and station control equipment. Station control equipment will consist of three (3) protection and control panels and two (2) communication panels. The 115kV equipment will be connected to two (2) protection and control panels for the power transformers, and one (1) bus auto sectionalizing panel. The feeder protection will be installed in the circuit breakers. The SCADA / communication panels consist of one (1) HMI “Human Machine Interface” and one (1) Network panel.

To integrate the new substation into the District’s system, the nearby transmission and distribution systems will be modified. The transmission system will require installation of one (1) new transmission pole adjacent to the existing 115kV tap h-frame structures. Four (4) distribution circuits will be replaced by the new substation using underground circuits and vaults where feasible while minimizing overhead road crossings. Five (5) new distribution circuits will be added from the new substation.

Work Package 10.1: Royal City Substation Engineering

Scope: Design Builder shall complete the following engineering deliverables.

Work Package 10.1.1: Civil Engineering

Scope: The civil engineering required for Burke Substation includes the design development of the new substation platform on approximately 170’ x 213’ of area near the existing Royal Substation. Included in the grading design for the pad is an enclosed area within the substation for sanitary facilities and drive paths to the main substation access road.

As part of the final demolition drawing package, indication for removal and salvage of existing station top rock will be noted and areas for final seed and straw will be provided.

Design will include:

- Grading substation platform - ~ 170’ x 213’
  - Surfacing Rock
  - Driveways/Access

- Demolition Design:
o Existing surface rock to be salvaged as much as possible and area converted to parking
o Restoration of site

Deliverables:
- IFC Topographic Survey (Completed in Phase 1)
- Drawing Index Updates (Completed in Phase 1)
- IFC Erosion Control (Completed in Phase 1)
- IFC Initial Earthwork (Completed in Phase 1)
- IFC Final Grading (Completed in Phase 1)
- IFC Grading Details (Completed in Phase 1)
- IFC Final Site & Yard Construction (Completed in Phase 1)
- Construction Specification

Provided by Others:
- GCPUD will provide:
  o Existing Royal Substation drawing set
  o Boundary Survey

Work Package 10.1.2: Structural Engineering

Scope: The structural engineering required for Royal substation will consist of developing fence/curb, foundation and structural steel drawings to support installation of substation equipment, bus, insulators and hardware including transmission equipment (dead-end, disconnect switch, potential transformers, circuit switchers, bus supports), transformers, distribution (distribution rack, feeder pedestals, bus supports, circuit breakers), control house, and sanitary facility.

The design for the perimeter fence with barb wire and curb will include up to three (3) drive gates, two (2) walk through gates and an enclosed area for sanitary facilities that also includes two (2) walk through gates.

As part of the design package, demolition drawings will be created for removal of the existing substation fence and curb except around the existing control house which will be converted to a fiber hut. New substation fence will be designed for installation around the fiber hut such that security and access to only approved employees can be provided. Demolition drawings will also be provided that outline the removal of concrete foundations within the existing Royal substation area. Deep foundations will be removed to four (4) feet below grade and shallow foundations will be removed completely.

Design will include:
- Foundations:
  o H-Frame (Transmission Dead-End) x2
  o Disconnect Switch x3
  o Bus Support – 115kV Single Stand x8
  o Potential Transformer - 115KV x2
  o Circuit Switcher x3
  o Transformer x2
  o Distribution Bay w/ circuit breakers x2
  o CT Feeder Pedestal – 13.8KV x10
  o Main Power Transformer - 13.8KV Bus Support x2
  o Control House x1
  o Sanitary Facility x1
Perimeter Concrete Curb x 1 & (Additional curbing – Fiber Hut)

- Structural Steel:
  - H-Frame (Transmission Dead-End)
  - Disconnect Switch
  - Bus Support – 115KV Single Stand
  - Potential Transformer - 115KV
  - Circuit Switcher (Steel stands by Manufacturer)
  - Distribution Bay w/ circuit breakers
  - CT Feeder Pedestal - 13.8KV
  - Main Power Transformer - 13.8KV Bus Support

- Perimeter Fence
  - Includes up to three (3) drive gates, two (2) man gates and an area for sanitary facilities with two (2) man gates

Demolition Design:

- Foundations (Deep foundations removed to at least 4’ below grade and others completely removed)
  - Circuit Switcher x2 (GB87, GB88)
  - 115kV Transmission Dead End x2
  - 115KV Pedestals - High x9
  - 115KV Bus Dead End x2
  - 115KV Pedestals – Low x4
  - 115KV Disconnect Switch x2
  - 115KV Bus Support x2
  - Transformer x2
  - 115KV VT Stand x2
  - 13.8kV Dead End x2
  - 13.8kV Circuit Breaker x1
  - 13.8kV Rack x1 (1 Slab)
  - 13.8kV Rack x1 (8 piers)
  - 13.8kV Bus Tie
  - Control House
  - Radio Tower

- Structural Steel
  - Circuit Switcher x2 (GB87, GB88)
  - 115kV Transmission Dead End x2
  - 115KV Pedestals - High x9
  - 115KV Bus Dead End x2
  - 115KV Pedestals – Low x4
  - 115KV Disconnect Switch x2
  - 115KV Bus Support x2
  - Transformer x2
  - 115KV VT Stand x2
  - 13.8kV Dead End x2
  - 13.8kV Distribution Poles x2
  - 13.8kV Circuit Breaker x1
  - 13.8kV Rack x1 (1 Slab)
  - 13.8kV Rack x1 (8 piers)
  - 13.8kV Bus Tie
  - Control House
Radio Tower
• Perimeter Fence

Deliverables:
• Demolition drawings
• Drawing Index Updates
• IFC Foundation Plan and details (Completed in Phase 1)
• IFC Structural Steel Plan (Completed in Phase 1)
• IFC Structural Steel drawings and details (Completed in Phase 1)
• IFC Dead-end performance / load trees
• IFC Fence plan and details including concrete curb
• Construction Specification
• Calculations – (Completed in Phase 1)
  o Foundation
  o Structural Steel
  o Bus Span

Provided by Others:
• GCPUD will provide:
  o Transformer vendor drawings
  o MV breaker vendor drawings

Work Package 10.1.3: Physical Engineering

Scope: The physical engineering and design for Royal substation will consist of above and below grade conduit and grounding, substation general arrangement and elevation drawings and control house layouts and elevations to support the installation of the new Royal substation adjacent to the existing station that will be demolished. Construction assembly units will be finalized along with calculations to support all design activities.

The new substation design will include integration of existing infrastructure and demolition of existing.

Design will include:
• H-Frame (Transmission Dead-End) x2
• Disconnect Switch w/ Interrupters x2 (GBXX1, GBXX4)
• Disconnect Switch w/ Motor Operator – (GBXX3)
• High Voltage Bus – 5” IPS
• Potential Transformer - 115KV x2 (PT11, PT21)
• Circuit Switcher x3, S&C2010, 48VDC, 240VAC, 2000A (GBXX2, GBXX5, GB88)
• Transformer x2, 115-13.8KV 25MVA (R10RT, R20RT)
• Station Service mounted equipment - fuse holder x2, 50KVA power potential transformer, and meter (R21)
• 13.8KV Distribution Rack Material (3” bus, various jumpers, disconnect switches, three (3) potential transformers) w/ 6 – 2000A circuit breakers x2
• 13.8kV CT Feeder Pedestals three (3) current transformers x10 (R12, R13, R14, R15, R16, R22, R23, R24, R25, R26)
• Control House with doors, outlets, lights, HVAC, 48VDC battery system, 120/240 VAC system x1
• Sanitary Facility x1
- Yard Lighting
- Ground Grid and grounding system including mobile transformer grounds
- Conduit between yard equipment and control enclosure
- Control cable, power cable, and fiber between yard equipment and control enclosure
- Signage – varies

Design Demolition:
- Circuit Switcher x2 (GB87, GB88)
- 115kV Transmission Dead End x2
- 115KV Pedestals - High x9
- 115KV Bus Dead End x2
- 115KV Pedestals – Low x4
- 115KV Disconnect Switch x2 (GB27, GB58)
- 115KV Bus Support x2
- Transformer x2 (R1RT, R20)
- 115KV VT Stand x2
- 13.8KV Dead End x2
- 13.8KV Distribution Poles x2
- 13.8kV Circuit Breaker x6 (R2, R6, R7, R8, R11, R12)
- 13.8kV Rack x2
- 13.8KV Bus Tie
- Control House
- Radio Tower
- Misc. Bus and conductor
- Misc. Light poles.
- Static Mast (outside substation fence)
- Grounding – provide isolation from new substation and existing property
  - Cut grounding to below grade
- Conduit to below grade

Deliverables:
- Drawing Index Updates
- IFC General Arrangement
- IFC Elevations / Sections
- IFC Control House Layouts and Elevations
- IFC Conduit Plan & Details
- IFC Grounding Plan & Details
- Construction and Assembly Units
- IFC Lighting Plan
- Demolition Drawings
- Construction Specification
- WSDOT Hazardous Material Analysis Report (Environmental Site Assessment)
- Calculations:
  - Grounding Study

Provided by Others:
- GCPUD will provide:
  - Transformer vendor drawings
MV breaker vendor drawings
Existing go by station drawings
Alternate design for station service via location distribution system

**Work Package 10.1.4: P&C Engineering**

**Scope:** The protection and controls engineering and design for the new Royal substation will consist of the creation of panel layout drawings, AC/DC schematic updates, creation of conduit/cable schedules, yard interface wiring and a final bill of materials to support construction of the new Royal substation. All drawings will be finalized and issued for construction and final vendor drawings will be placed on GCPUD borders.

**New Design:**
- Relay Rack 5 – Transformer R10RT
- Relay Rack 6 – Transformer R20RT
- Relay Rack 7 – Bus Auto Sectionalizing
- Circuit Breaker – R11, R12, R13, R14, R15, R16, R21, R22, R23, R24, R25, R26
- Transformer Monitors - B10RT, B20RT

**Design Demolition**
- Station Relay & Metering Panel (Existing Control House)
- Alarm Patch Panel
- Control and Power Cables

**Deliverables:**
- Drawing Index Updates
- IFC Cable schedule
- IFC One line drawing (Developed in Phase 1)
- IFC Protection Schematics
- IFC Panel layout drawings
- IFC Bill of material
- IFC AC & DC drawings
- Vendor drawings placed on GCPUD borders
- IFC Wiring Diagrams
- Construction Specification
- Calculations:
  - Conduit Fill
  - Voltage Drop
  - CT Saturation
  - AC Loading
  - DC Loading

**Provided By Others:**
- GCPUD will provide:
  - Transformer vendor information
  - MV breaker vendor information
  - Standard schematics and panel wiring drawings
  - Relay settings
**Work Package 10.1.5: Communication & SCADA Engineering**

**Scope:** Communications and SCADA engineering will include review and validation of existing documentation and the creation of panel layouts, wiring diagrams, a communication block diagram and a points list for the new Burke substation. The design will incorporate equipment that will provide remote access and control of the substation and information will be displayed on a Human Machine Interface (HMI) local to that station that can be shared with the District via a fiber optic network.

Design will include:
- Rack 1 – HMI (Human Machine Interface)
- Rack 2 – Network

**Existing Royal Design:**
- Substation Fiber – Design connection of new control house to existing control house (Fiber Hut) with fiber in new conduit designed as part of the physical design package. Pathway will be diverse.
- Fiber Hut Improvement – Design a diverse fiber pathway from fiber hut to existing fiber pole with riser.

**Deliverables:**
- Drawing Index Updates
- Validation of Existing Documentation
- IFC Communication Block Diagram
- Final Points List
- SCADA Internet Protocol Communications Parameters
- IFC Wiring Diagrams
- Construction Specification

**Provided by Others:**
- GCPUD will provide
  - Rack 3 – Telecom by GCPUD (If required)
  - Existing go by substation drawings
  - SCADA programming

**Work Package 10.1.6: Transmission Engineering**

**Scope:** Transmission line engineering for the new Royal substation will include validation of existing transmission line design and structure locations and the creation of new plan, profile and structure hardware and detail drawings to allow 115KV interconnection from the District’s transmission system to the new substation while disconnecting from the existing substation. A final bill of material will be provided.

Design will include:
- Install new pole 27/11
- Install new conductor, insulators and hardware

**Design Demolition:**
- Remove span from pole 27/10 to existing dead-end tower
- Remove span from pole 28/1 to existing dead-end tower
Deliverables:
- IFC Plan & Profile Drawings
- IFC Staking sheets
- IFC Structure Geometry Drawings, Assembly Details
- IFC Laminated Pole Design
- IFC Bill of Material
- IFC Sag Tables
- IFC Grounding Details
- IFC Stringing Charts
- Construction Specification

Provided by Others:
- GCPUD will provide
  - Existing go by transmission line drawings
  - Red Rock Transmission Line Routing

Work Package 10.1.7: Distribution Engineering

Scope: Distribution engineering for the new Royal substation will include the design for allowing new substation feeder circuits to replace existing distribution infrastructure. Specifically, new substation feeder circuits will be engineered from the risers at each low voltage distribution bay through conduits to distribution vaults located just outside of the substation fence. Design and installation of some circuits to replace existing will be performed and existing poles with fiber infrastructure will be retained.

Design will include:
- R13 – Substation riser, substation vault, existing field vault.
- R14 – Substation riser, substation vault, existing field vault.
- R15 - Substation riser, substation vault, new pole w/riser. Interconnect to existing poles.
- R16 - Substation riser, substation vault – conduit, no cable
- R22 - Substation riser, substation vault – conduit, no cable
- R23 - Substation riser, substation vault – conduit, no cable
- R24 - Substation riser, substation vault, field vault, existing pole w/ riser.
- B25 – Substation riser, substation vault, field vault, existing pole w/ riser.

Demolition:
- R16 – Design Demolition/Disconnect and replace with new circuit.
- R17 – Design Demolition/Disconnect and replace with new circuit.
- R18 – Design Demolition/Disconnect and replace with new circuit.
- R21 – Design Demolition/Disconnect and replace with new circuit.

Deliverables:
- IFC Feeder Getaway Drawings
- IFC Vault Detail Drawings
- IFC Riser Detail Drawings
- IFC Conduit Ductbank Drawings
- IFC Bill of Material
- IFC Calculations:
  - Pulling Calculations
Provided by Others:
  • GCPUD will provide
    o Existing go by distribution line drawings

Work Package 10.1.8: Project Site Closeout

Scope: Upon project site closeout, substation, transmission and distribution drawings will be updated to reflect construction as-left. The revised drawings will incorporate construction red lines, removal of unnecessary construction notes and completion of title block revisions. Completed drawings will be returned to the District’s system and control.

Deliverables:
  • Updated station, transmission and distribution drawings

Work Package 10.2: Royal City Substation Procurement

Scope: Design Builder shall complete the following long lead Phase 1 procurement deliverables

Work Package 10.2.1: Civil Procurements

Scope: Civil Procurement for Phase 1 will consist of an approach permit to the site.

Deliverables: Approach Permit

Provided by Others: None

Work Package 10.2.2: Structural Procurements

Scope: Structural procurement required for Royal substation will consist of the fence/curb, foundations, control house, anchor bolts/templates and structural steel to support installation of substation equipment, bus, insulators and hardware.

The new perimeter fence will have barb wire, curb and will include up to three (3) drive gates, two (2) walk through gates and an enclosed area for sanitary facilities that also includes two (2) walk through gates. A small section of new fence will also be procured for installation around the existing fiber hut.

Material for foundations, rebar, fence and concrete curb to be installed under the new substation fence are included in the structural construction price (10.3.2).

Major Procurement Items:

Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item

  • H-Frame (Transmission Dead-End) x2
  • Disconnect Switch Stand x3
  • Bus Support Stand – 115KV Single Stand x8
  • Potential Transformer Stand - 115KV x2
  • Distribution Bay Steel x2
  • CT Feeder/Bus Tie Pedestal Stands - 13.8KV x10
Main Power Transformer - 13.8KV Bus Support Stands x2
- Control Enclosure
- Vaults x12

**Deliverables:**
- Steel structures delivered to jobsite/laydown
- Anchor bolts and templates delivered to jobsite/laydown
- Final steel fabricator drawings (For any non GCPUD standard structures)

**Provided by Others:**
- GCPUD will provide:
  - Steel stands/supports for all GCPUD provided major equipment

**Work Package 10.2.3: Physical Procurements**

**Scope:** The physical procurement for Royal substation will consist of above and below grade conduit and grounding, substation bus, insulators, hardware, wiring/cable and miscellaneous control house internals to support the installation of the new Royal substation adjacent to the existing station that will be demolished.

Major Procurement Items:

**Reference detailed pricing sheet for a complete list including quantities of all items priced per WBS numbered item**

- Disconnect Switch w/ Interrupters x3 (GBXX1, GBXX4, GBXX6)
- Disconnect Switch w/ Motor Operator – (GBXX3)
- Potential Transformer - 115KV x2 (PT11, PT21)
- Circuit Switcher Including Stand x3, S&C2010, 48VDC, 240VAC, 2000A (GBXX2, GBXX5, GB88)
- Mounted Station Service Equipment - fuse holder x2, 50KVA power potential transformer, and meter (B21)
- Three (3) current transformers x10 on CT/Bus Tie Pedestals (R12, R13, R14, R15, R16, R22, R23, R24, R25, R26)
- JOSLYN VAC RUPTER 115KV x18
- 15KV 2000A VEE SWITCH x36
- 15KV 2000A TANDEM SWITCH x36
- 115KV VERTICAL BREAK SWITCH x3

**Deliverables:**
- Substation equipment delivered to jobsite
- Substation bus, wiring, insulators, hardware, lighting (Substation Package) delivered to jobsite/laydown
- Conduit and grounding material delivered to jobsite/laydown
- Vendor data sheets and O&M manuals

**Provided by Others:**
- GCPUD will provide:
  - Circuit Switcher specification
  - Main Power Transformers
Work Package 10.2.4: P&C Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 10.2.5: Communication & SCADA Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 10.2.6: Transmission Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 10.2.7: Distribution Procurements
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 10.3: Royal City Substation Construction
Scope: Design Builder shall complete the following construction deliverables to support the phase 1 and GPM pricing.

Work Package 10.3.1: Civil Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

Work Package 10.3.2: Structural Construction
Scope: Not needed for Phase 1
Deliverables: None
Provided by Others: None

**Work Package 10.3.3: Physical Construction**

Scope: Not needed for Phase 1  
Deliverables: None  
Provided by Others: None

**Work Package 10.3.4: P&C Construction**

Scope: Not needed for Phase 1  
Deliverables: None  
Provided by Others: None

**Work Package 10.3.5: Communication & SCADA Construction**

Scope: Not needed for Phase 1  
Deliverables: None  
Provided by Others: None
<table>
<thead>
<tr>
<th>Material Costs</th>
<th>Phase 1 Additional LL Material</th>
<th>Phase 1 Actual Cost Variance</th>
<th>Cost of Work Contingency</th>
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<th>B&amp;O Tax</th>
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<td>Disconnect Switch</td>
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**Grant Count PUD - DB2 Load Growth Project**  
*Change Order #02 - Phase 1 Extension  
*Contract #130-09724  
*Attachment 2 - QEPG Long Lead Material*

### Material View Mobile Tap

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Material Costs</th>
<th>Phase 1 Additional IL Material</th>
<th>Phase 1 Actual Cost Variance</th>
<th>Cost of Work Contingency</th>
<th>Fee</th>
<th>S&amp;O Tax</th>
<th>Notes/Total Cost</th>
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### Bus and Equipment Support Structures

<table>
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<th>Fee</th>
<th>S&amp;O Tax</th>
<th>Notes/Total Cost</th>
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### Tubular Steel Structures

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<th>Fee</th>
<th>S&amp;O Tax</th>
<th>Notes/Total Cost</th>
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### Control House (Building Only)

<table>
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<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
<th>Material Costs</th>
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<th>Fee</th>
<th>S&amp;O Tax</th>
<th>Notes/Total Cost</th>
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### Contactor

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<th>S&amp;O Tax</th>
<th>Notes/Total Cost</th>
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### Disconnect Switch

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<th>Fee</th>
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### Transformer

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### Additional Costs

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### Notes

- **Total Cost**

---

**Material View Mobile Tap**  
$190,364.70

**Disconnect Switch**  
$223,297.20

**Total Cost**  
$1,045,318.20
## SUMMARY BREAKDOWN

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<th>Material Costs</th>
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Grand Total LL Material Needs (Net including Taxes or FEE) $2,012,921.01
Phase 1 LL Material (No Tax or FEE) $466,735.00
Cost of Work Contingency $76,851.29

| Material Needs (Phase 1 Budget Increase) | $1,643,030.30 |
| Phase 1 LL Material FEE (8%) | $35,738.64 |
| FEE (8%) | $131,443.14 |
| Grand Total (W/ FEE / NO TAX) | $1,810,221.08 |
| B&O Tax | $10,630.25 |
| Grand Total LL Material Increase | $1,820,851.34 |

Includes B&O tax on FEE (Gross Receipts) No Sales Tax
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Total WO revenue $ 1,443,950

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| NTE | OEC &amp; Labor | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - |
| NTE | Torner &amp; Potolicio | $ 27,000 | $ 27,000 | $ 0 | $ 27,000 | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - |
| LS | HORE | $ 1,295,149 | $ 1,295,149 | $ 0 | $ 1,295,149 | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - |
| Bonding | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - | $ - |
| NTE | Survey Underbid | $ (73,997) | $ (73,997) | $ 0 | $ (73,997) | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - |
| Total MS | $ 1,443,555 | $ 1,443,555 | $ 0 | $ 1,443,555 | $ - | $ - | $ - | $ - | $ - | $ 0 | $ - | $ - | $ - | $ - | $ - |</p>
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Grant County PUD - DB2 Load Growth Project
Change Order #02 - Phase 1 Extension
Contract #130-09724

| LS | Equipment / Material | $ | 1,810,221 |
| NTE | OPEC Labor | $ | 331,956 |
| NTE | Torner & Potato | $ | 27,000 |
| LS | HOME | $ | 1,295,149 |
| Bonding | $ | 27,627 |
| Bonding | $ | 27,977 |
| NTE | Survey Underbur | $ | 75,000 |
| Total Pass interfer | $ | 1,442,000 |

| I | II | III | Phase 1 Budgeted | Change Order #4 | Total | Phase 1 Extension Hours | Phase 1 Extension Costs | Phase 1 Extension Contingency | Phase 1 Extension Fee | Phase 1 Extension Bonding | Phase 1 Extension LS & Bond | Total Phase 1 Extension |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 4.5.10 | Develop Handbook of Permits | $ | 644,057 |
| 5.1- Real/Build Substructure | 504,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.1- Engineering Design - (LS) | 540,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.1.1 | Basic of Design | $ | - |
| 5.1.2 | Civil Engineering | $ | - |
| 5.1.3 | Structural Engineering | $ | - |
| 5.1.4 | Electrical Engineering | $ | - |
| 5.1.2 | Electrical Physical Engineering | $ | - |
| 5.1.4 | Electrical P& C Engineering | $ | - |
| 5.1.5 | Communication & SCADA Engineering | $ | - |
| 5.1.6 | Distribution Engineering | $ | - |
| 5.1.1 | Project Site Closeout | $ | - |
| 5.1- Procurement - (LS) | 540,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.2.1 | 1-15KV 1200a Breakers | $ | - |
| 5.2.2 | 1-15KV 000a Breakers | $ | - |
| 5.2.3 | 1-15KV 1000a 1200a | $ | - |
| 5.2.4 | 1-15KV 1200a Breaker | $ | - |
| 5.2.5 | 1-15KV Switchgear (For Furniture) | $ | - |
| 5.2.7 | 1-15KV Switchgear | $ | - |
| 5.3- Construction - (NTS) | 540,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.3.1 | Civil Construction | $ | - |
| 5.3.2 | Structural Construction | $ | - |
| 5.3.3 | Electrical Construction | $ | - |
| 5.3.4 | Water & Control Construction | $ | - |
| 5.3.5 | Communication & SCADA Construction | $ | - |
| 5.4- Commissioning & Testing - (TNTS) | 540,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.4.1 | Commissioning & Testing | $ | - |
| 5.4.2 | Site Specific Testing & Commissioning Plan | $ | - |
| 5.4.3 | Testing & Commissioning | $ | - |
| 5.4.4 | Commissioning & Testing - Observation | $ | - |
| 5.5- Property Services - (NTS) | 540,814 $ | 644,057 $ | 644,057 $ | 401 $ | 525,415.62 $ | 525,415.62 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ | 25,964 $ |
| 5.5.1 | Permitting | $ | - |
| 5.5.5 | Survey Services | $ | - |
| 5.5.6 | Field Services | $ | - |
| 5.5.7 | EIRP | $ | - |

| Total | $ | 1,259,384 |

| 6-8- Field Work Order | $ | 12,590,221 |
| 6.1- Engineering Design - (LS) | 6.2 | 12,590,221 $ | 12,590,221 $ | 12,590,221 $ | 12,590,221 $ | 12,590,221 $ | 12,590,221 $ |
| 6.1.1 | Basic of Design | $ | - |
| 6.1.2 | Civil Engineering | $ | - |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |

| Total Rev | $ | 12,590,221 |
## Electrical Physical Engineering

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### Electrical P&O Engineering

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### Electrical P&O Engineering

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<td>110KV Switches (For Frenchman Hill)</td>
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### Electrical P&O Engineering

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### Electrical P&O Engineering

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### Electrical P&O Engineering

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## Grant County PUD - DB2 Load Growth Project
### Change Order #02 - Phase 1 Extension
#### Contract #130-09724

### Table: Project Breakdown

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### Summary
- Total Revised Hours: 218,442
- Total Revised Cost: $14,442,589
- Total Revised Contingency: $154,025
- Total Revised Bonding: $733,500
- Total Cost: $165,420

---

**NTE**
- OPEC Labor: $331,958
- Tommer & Potelco: $27,000
- LS: $1,295,149
- Bonding: $27,627
- BBO Tax: $23,997
- NTE: Survey Underbid: $75,000
- Total: $1,810,221
## Grant County PUD - DB2 Load Growth Project
### Change Order #02 - Phase 1 Extension
#### Contract #130-09724

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### Phase 1 Permits Review and Submitted
- 3 - 115kV Circuit Breakers

### 8.3: Construction - (NTE)
#### 8.3.1 Civil Construction
- 0 - $0

#### 8.3.2 Structural Construction
- 0 - $0

#### 8.3.3 Electrical Construction
- 0 - $0

#### 8.3.4 Protection & Control Construction
- 0 - $0

#### 8.3.5 Communication & SCADA Construction
- 0 - $0

#### 8.4: Commissioning & Testing - (NTE)
#### 8.4.1 Preliminary Testing & Commissioning Plan
- 0 - $0

#### 8.4.2 Site Specific Testing & Commissioning Plan
- 0 - $0

#### 8.4.3 Testing & Commissioning
- 12,882 - $0

#### 8.4.4 Testing & Commissioning - Observation / Punch list
- 0 - $0

#### 8.5: Property Services - (NTE)
#### 8.5.1 Valuation / Survey Property Location and Survey
- 0 - $0

#### 8.5.2 Substation Orientation Alternatives
- 0 - $0

#### 8.5.3 Utility Landowners of Substation
- 0 - $0

#### 8.5.4 Public Works Participation
- 0 - $0

#### 8.5.5 Concrete Handicap from Public Workshops
- 0 - $0

#### 8.5.6 Final Substation Orientation & Location Selection made / Public
- 0 - $0

#### 8.5.7 NCRP
- 0 - $0

#### 8.5.8 SEPA
- 0 - $0

#### 8.5.9 Survey Scope contracted and Completed
- 0 - $0

#### 8.5.10 Review & Comment of Survey
- 0 - $0

#### 8.5.11 Develop List of Required Permits
- 0 - $0

#### 8.5.12 Review List of Required Permits
- 0 - $0

#### 8.5.13 Survey Permit Applications
- 0 - $0

#### 8.5.14 Permits Revised and Submitted
- 0 - $0

#### 8.5.15 Mowing & Track Permit Submittals
- 0 - $0

#### 8.5.16 Develop Handbook of Permits
- 0 - $0

### 8.6: South Ephrata Ring Bus
- 25,999 - $0

### 9.1: Engineering Design - (LS)
#### 9.1.1 Site Design
- 23,060 - $0

#### 9.1.2 Civil Engineering
- 11,300 - $0

#### 9.1.3 Electrical Engineering
- 11,600 - $0

#### 9.1.4 Electrical Facility Engineering
- 4,932 - $0

#### 9.1.5 Transmission Engineering
- 11,100 - $0

#### 9.1.6 Project Site Closeout
- 0 - $0

### 9.2: Procurement - (LS)
#### 9.2.1 115kV Circuit Breakers
- 0 - $0

#### 9.2.2 115kV Disconnect Switches
- 0 - $0

### Total Costs
- $1,297,057
- $105,048
- $208
- $206
- $62,476

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**Page 8**
### 9.2.2 115kV CCVT's

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<th>Total B/O &amp; Bonding</th>
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#### 9.7 - Project Closeout - (NTT)

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#### 9.8 - Road City Substation - (NTT)

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**Grant County PUD - DB2 Load Growth Project**

**Change Order #02 - Phase 1 Extension**

**Contract #130-09724**

---

**Page 9**
# Grant County PUD - DB2 Load Growth Project

## Change Order #02 - Phase 1 Extension

**Contract #130-09724**

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## Report - Survey Scope

**Generated and Conducted**

**Template Testing & Commissioning Plan**

- Develop List of Required Permits
- Notify Landowners of Substation
- Publish closeout

| 10.2.6 | Transmission Procurement | S | - |
| 10.2.7 | Distribution Procurement | S | - |
| 10.3.5 | Insurance Construction | S | - |
| 10.3.6 | Electrical Construction | S | - |
| 10.3.4 | Protection & Control Construction | S | - |
| 10.3.1 | Communication & SCADA Construction | S | - |
| 10.3.9 | Transmission Construction | S | - |
| 10.3.7 | Distribution Construction | S | - |
| 10.6.8 | Sub General Conditions & Misc Total | S | - |
| 10.4.5 | Template Testing & Commissioning Plan | S | - |
| 10.4.2 | Site Specific Testing & Commissioning Plan | S | - |
| 10.4.3 | Testing & Commissioning | S | - |
| 10.4.4 | Testing & Commissioning - Observation / Punch list | S | - |
| 10.5.1 | Environmental Reports & Site Assessments | S | - |
| 10.5.2 | Substation Orientation Alternatives | S | - |
| 10.5.3 | Utility Landowners of Substation | S | - |
| 10.5.4 | Public Workforce Project | S | - |
| 10.5.5 | Compile Findings from Public Workshops | S | - |
| 10.5.8 | Publish | S | - |
| 10.5.7 | FEIPA | S | - |
| 10.5.9 | Survey Scope General and Conducted | S | - |
| 10.6.10 | Review & Comments of Survey | S | - |
| 10.6.11 | Develop List of Required Permits | S | - |
| 10.6.12 | Review of List of Required Permits | S | - |
| 10.6.13 | Develop Permit Applications | S | - |
| 10.6.14 | Permits Reviewed and Submitted | S | - |
| 10.6.15 | Mitigate & Track Permit Submittals | S | - |

## Change Order #1

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**Total Cost (LS + CO):**

- 10.2.6 Transmission Procurement: $7,497.68, Total Cost: $279.83, Hours: 18.00, Bonding: 17.00, Total Cost: 3,814.48
- 10.5.1 Civil Construction: $3,814.48, Total Cost: $280, Hours: 37, Bonding: 0, Total Cost: 3,814

**Total Cost:**

- 0 $1,496, $280, $17, $3,814

Page 10
## Change Order Table

**Contract Title:** Grant County Load Growth Project  
**Contract No.:** 130-09724  
**Award Date:** 12/10/2019  
**Project Manager:** David Klinkenberg  
**Original Contract Amount:** $2,028,023.14  
**District Representative (If Different):**  
**Contractor:** Quanta Electric Power Construction, LLC.  
**Original Contract completion:** 6/30/2022

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<th>Cost Change Amount</th>
<th>Revised Contract Amount</th>
<th>Authority Level Tracking</th>
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<td>$2,293,340.95</td>
<td>$265,317.81</td>
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**Total Change Order Cost Change Amount:** $3,708,272.12
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<td>10:00am Randalynn Hovland Commission Meeting (HQ-Commission) - Randalynn Hovland</td>
<td>11:00am WPUDA July Association Meetings (Judy) (Virtual Meetings (Judy)) - Commission Meetings</td>
<td>8:00am WPUDA July Association Meetings (Virtual Meeting (Judy))</td>
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Commission Meetings
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Oct 1

- **10:00am** Randalynn Hovland Commission Meeting (HQ-Commission)
- **12:00pm** Lunch with County
- **8:00am** Energy Northwest Executive Board Meeting & Board of Directors
- **8:00am** Energy Northwest Executive Board Meeting & Board of Directors
- **8:00am** Energy Northwest Executive Board Meeting & Board of Directors

**Commission Meetings**
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<td>9:00am Shannon Lowry North RV Park HOA Annual Meeting (NRVP Common Area) - Shannon Lowry</td>
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<td>8:00am Randalynn Hovland HOLIDAY - Randalynn Hovland</td>
<td>10:00am Randalynn Hovland Commission Meeting (HQ-Commission) - Randalynn Hovland</td>
<td>8:00am NWPPA 80th Annual Meeting—and 1st Virtual Annual Meeting (times and login detail coming soon) - Commission</td>
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<td>1:00pm WPUDA September Association Meetings (TBD)</td>
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<td>10:00am Randalynn Hovland Commission Meeting (HOB-118)</td>
<td>8:00am Energy Northwest Executive Board Meeting &amp; Board of Directors Meeting (If Needed - Workshop) (Tri-Cities,</td>
<td>8:00am Energy Northwest Executive Board Meeting &amp; Board of Directors Meeting (If Needed - Workshop) (Tri-Cities,</td>
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Commission Meetings