Special Meeting Agenda PUD Board of Commissioners

Thursday, April 21, 2022 10:00 AM zoom
Port Townsend, WA 98368



To join online go to: https://zoom.us/my/jeffcopud. Follow the instructions to login. Meetings will open 5 minutes before they begin. TOLL FREE CALL IN #: 833-548-0282, Meeting ID# 4359992575#. Use *6 to mute or unmute. *9 to raise a hand to request to begin speaking.

1. Call to Order

Per the Governor's Extended Proclamation 20-28 and in response to the COVID-19 Pandemic, Jefferson County PUD is no longer providing an in-person room for meetings of the BOC. All meetings are held remotely via Zoom. Participant audio will be muted upon entry. Please unmute at the appropriate time to speak. If you are calling in, use *6 to mute and unmute and *9 to raise a hand to request to speak.

2. Agenda Review

3. Presentation: Western Public Agencies Group (WPAG) Power Purchase Update

2 - 28

Utility Framework of Future and Strategic Issues.pdf

4. Broadband Engineering Contract

29 - 35

Finley Final Engineering Services Contract 2022 04 14_.pdf

2022 Finley JPUD Scope.pdf

Rate Schedule.pdf @

1.18 Project Schedule.pdf Ø

Recommended Action: Approve a motion authorizing General Manger Kevin Streett to enter into a contract for FTTP for with Finley Engineering

5. Adjourn



PRESENTED BY EES CONSULTING

JEFFERSON COUNTY PUD

UTILITY FRAMEWORK OF THE FUTURE AND ASSOCIATED STRATEGIC ISSUES BOARD WORK SESSION

April 21, 2022

Gary Saleba, Executive Consultant Kevin Mara, P.E., Executive Vice President

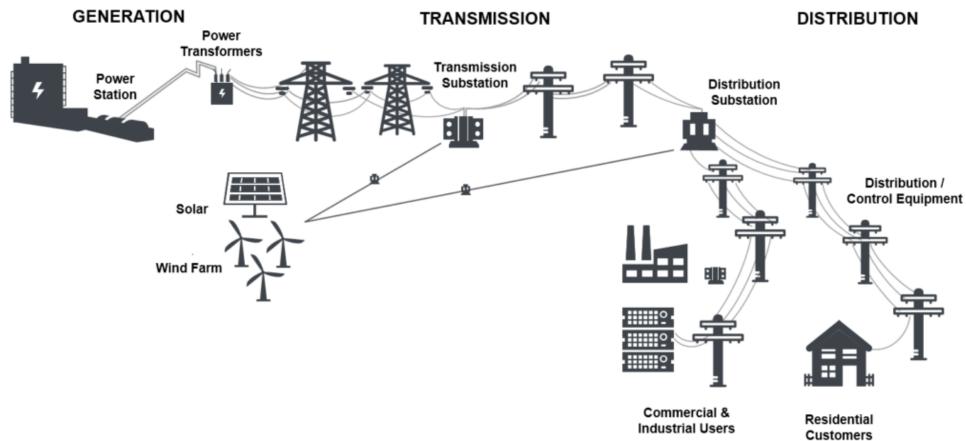
EES Consulting, a GDS Associates Company

AGENDA

- □ Introductions and Session Objectives
- □ Functional Components of Utilities
 - Generation
 - Transmission
 - Distribution
- □ Key Strategic Issues Going Forward by Function
- Conclusion and Wrap-Up
- Questions and Answers

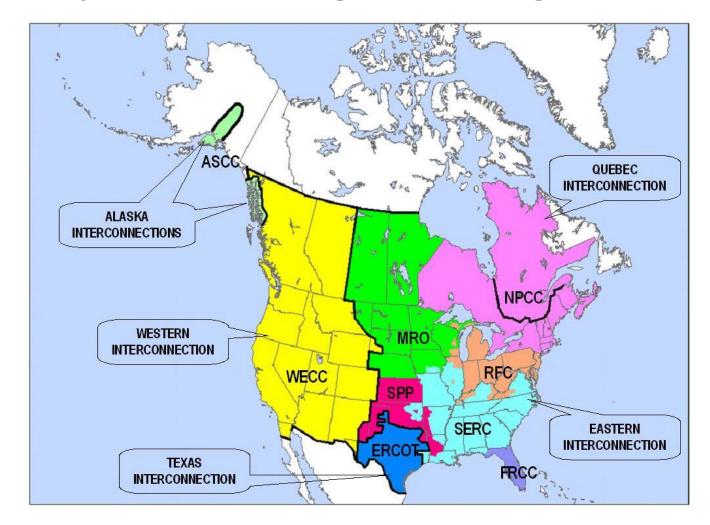


INTRODUCTION/SESSION OBJECTIVES



GENERATION INFRASTRUCTURE

□ Reliability Councils – Do Long-Term Planning



GENERATION INFRASTRUCTURE (CONT'D)

□ Balancing Areas – Do Short-Term Operations



GENERATION INFRASTRUCTURE (CONT'D)

■ What Do They Do?

- Long-term planning reserve levels, resource adequacy, renewable development and integration into grid
- Make sure generation supply and demand long-term and instantaneously match up
- Real time balancing of supply and demand maintain frequency
- Run the wholesale market (spot market) transactions
- Settle up imbalances between loads and resources by utility
- All currently handled for JPUD by BPA

GENERATION INFRASTRUCTURE (CONT'D)

- What Products are Bought/Sold on Wholesale Power Market?
 - Energy (kWh)
 - Shaped
 - Blocks
 - Season
 - Daily
 - Capacity (kW)
 - Resource adequacy
 - Ancillary services
 - Operating reserves
 - Regulation services
 - Balancing
 - Congestion revenue rights
 - Renewable energy projects
 - Transmission access
 - Point to point
 - Network
 - Congestion mitigation

ISSUES WITH GENERATION

- □ Transacting Energy/Capacity Purchases
 - Bilateral wholesale markets
 - Long-/short-term power purchase agreements (PPA)
 - Day-ahead market
 - Real-time market
 - Fifteen-minute market (FMM)
 - Five-minute market (RTM)
 - Very complex, fluid and transparent
- □ Physical/Financial Transactions
 - Hedging strategies

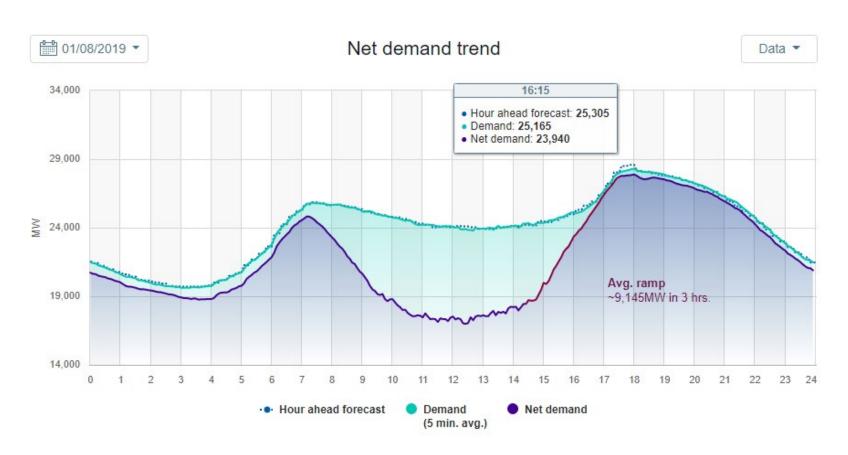
- □ Key Drivers of Energy Market Prices/Causes for Volatility
 - Natural gas runs peaking units
 - Storage volumes of gas
 - Transport constraints/bottlenecks and outages
 - Demand for natural gas is largely temperature sensitive
 - Weather local and regional
 - Hydrology/rainfall
 - Policy and changing supply composition
 - Resource Portfolio Standard requirements
 - GHG/Carbon free objectives
 - Preferred location for generation
 - Distributed energy resources/demand response programs
 - Transmission constraints/bottlenecks



- □ Risk Management
 - Volumetric risk
 - Price risk
- □ Big Deal and Drives Hedging Strategies
- □ Delegated Authority Side Boards



□ Integration of Renewables



- □ Long-Term to Short-Term Hedge Strategy
 - Long-term hedging
 - Load forecasting
 - Coverage objectives
 - Market conditions
 - Resource composition
 - Short-term hedging
 - Refined load forecast
 - Intra-month/intra-day shaping
 - Market conditions
 - Fixed price energy hedging
 - Contract for differences
 - Fixed for variable price swaps
 - How much to hedge??



- □ Renewable Energy Mandates/CETA
 - No coal by 2025
 - GHG neutral by 2030
 - 100% GHG-free by 2045
- □ Incentives to Invest in Grid Enhancements through 2029
- □ Resource Adequacy Meetings with WUTC and Department of Commerce Periodically to Check Status

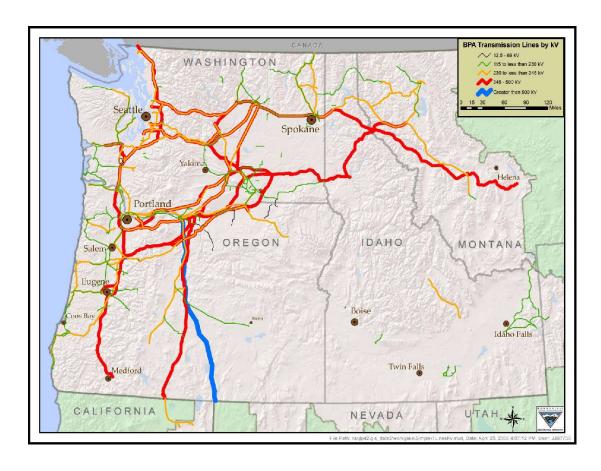
☐ How to Plan and Buy Wholesale Power?

- Load forecast with renewable requirements included
- Identify demand-side and supply-side options (both resource acquisitions and purchase power agreements)
- Issue request for proposal
 - Developers
 - Marketers/brokers
 - Other utilities
- Select least cost mix
- Negotiate the best deal
- Usually supported by an integrated resource plan
- Think about what you want from BPA to support your preferred acquisition plan/power supply strategy/storage??

- ☐ How to Plan and Buy Wholesale Power (cont'd)
 - Operations
 - Need real time scheduling desk
 - Preschedule day ahead
 - Adjust hour ahead
 - Some real time adjustments okay
 - Audit bill from balancing authority
 - Usually done by consultants
 - Prices can swing significantly (weather/forced majeure)

TRANSMISSION INFRASTRUCTURE

Current Status



Transmission System

Operating Voltage	e Circuit Miles
1,000	
kV	264*
500 kV	4,735
345 kV	570
287 kV	229
230 kV	5,324
161 kV	119
138 kV	50
115 kV	3,556
below 115 kV	368
Total 1:	5.215

*BPA's portion of the PNW/PSW directcurrent intertie. The total length of this line from The Dalles, OR to Los Angeles, CA is 846 miles.

TRANSMISSION INFRASTRUCTURE (CONT'D)

□ Issues

- Lots of congestion currently
- Mostly an old system/needs major capital upgrades
- Renewables/storage have special transmission integration needs/locations for renewables are not optimal
- Lots of transmission operators or centralized operator/organized market?
- Coordination among balancing authorities
- Pricing for transmission
- Availability of transmission
- Aesthetics/right-of-way acquisition
- Alternatives to new construction
- Post-2028 BPA transmission needs and products

DISTRIBUTION INFRASTRUCTURE

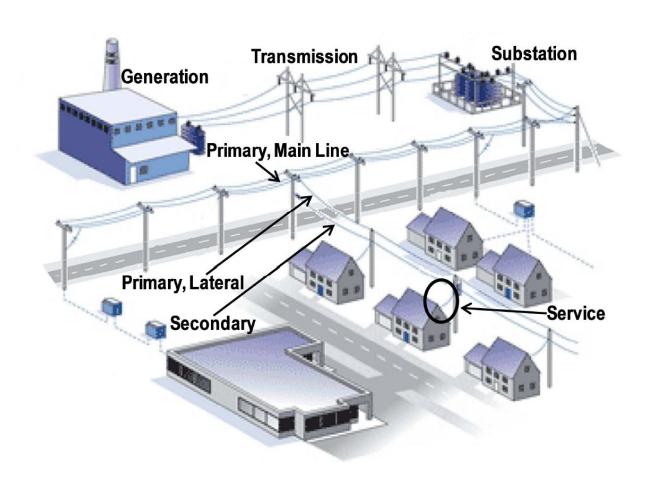
- □ Current Status
- □ Distribution Grid of the Future
- □ Pending Issues



CURRENT STATUS OF DISTRIBUTION GRID

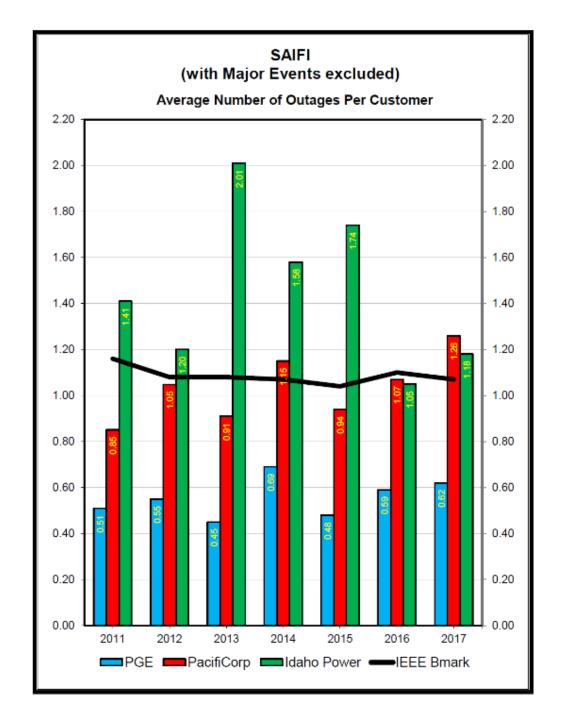
CENTRAL DESIGN

- □ Transmission to Substation
- Substation to Main Line
- Main Line to Lateral
- □ Transformer to Service
- □ Service to Meter



SHORT-TERM ISSUES

- □ Reliability and Resiliency
- Outage Data for Jefferson PUD
 - How does it compare to peers
 - SAIFI avg should be 1.00 to 1.20
 - SAIDI avg should be 1 to 1.5 hours/customers
- Resiliency
 - How fast restore service after major weather event



FIRE SAFETY

- □ Liability from Fires
- Investments in Mitigation Strategies
 - Reduce liability risks



AGING INFRASTRUCTURE AND TECHNICAL OBSOLESCENCE

- □ Aging Plant Must Constantly be Replaced and Upgrade
 - Ignoring reduces reliability
- □ Replacement of Equipment and Systems Due to Obsolescence
 - SCADA systems (JPUD complete)
 - OMS/work order management systems (JPUD Complete)
 - AMI meters (JPUD pending)



DISTRIBUTION GRID OF THE FUTURE

■ Distributed Generation and Storage

- Solar and batteries in the home
- No longer central design power can flow two directions

□ Electric Vehicles

- Car manufacturers setting end of internal combustion engine (ICE) in 2030 to 2040
- Sell only electric cars
- Significant increase in demand and energy at existing homes
 - 4 to 8 kW for 120 volt and 240 volt charger, respectively
 - Many homes with two cars

COMMUNICATION WITH GRID DEVICES

- Downline Reclosers
- DER Devices
 - Monitor and control
 - Lower battery costs offer resiliency options and demand side management
- □ Fault Indicators
- Meters
 - Time of use, EV charger rates
- EV Chargers
 - Manage charging times for customers
- □ Communication to Customers
 - Outage
 - Usage
 - Peak demand controls

- Cybersecurity
 - Information
 - Communication
- □ IT Department
 - More sophisticate
 - More central to operation of the system

PENDING ISSUES

- System Reliability
 - Aging infrastructure
 - System hardening
 - Veg management
 - Restoration methods
- □ Fire Mitigation/Risk Management
- □ Technology Upgrades
- □ Supply Chain Shortages



SUMMARY AND WRAP-UP

QUESTION/ANSWER



ENGINEERING SERVICE CONTRACT

	AGREEMENT MADE AS OF	4/20/2022	BETWEEN
Public U	tility District No. 1 of Jefferson County	OF	310 Four Corners Rd, Port Townsend, WA
(HE	REINAFTER CALLED THE "OWNER") AN	ID	FINLEY ENGINEERING COMPANY, INC.
OF	1981 ENGEBRETSON STREET SL	AYTON, MI	(HEREINAFTER CALLED THE "CONSULTANT").

TERMS OF AGREEMENT:

This Agreement shall become effective as of the date hereof and shall remain in effect until terminated by either party giving thirty (30) days' notice to the other party of its intention to terminate. In all events, this Agreement will terminate in five (5) years.

SERVICES COVERED:

The Consultant shall perform from time to time such services as presented in writing by the Owner and agreed to by Consultant, or by request per the terms of this Agreement (the "Work"). Consultant represents that it possesses qualified personnel and maintains appropriate license and certificates of authority to perform services in a manner consistent with the Standard of Care for other Consultants performing the same services in the same geographic area. On projects of specified scope an Engineering Services Authorization Form will be submitted and signed by both parties to begin Work, Consultant will be an independent Engineer and not an employee of the District. Consultant represents and warrants that it has, or will obtain prior to the start of Work, and will maintain, as required by applicable laws, ordinances, codes, and regulations all registrations, licenses, permits, and other similar documents and certification necessary for its performance of the Work hereunder for the successful performance of this Agreement and any issued Engineering Services Authorization Forms. Consultant shall not represent itself as an agent of the District for any purpose, and has no authority to bind the District, unless specifically granted such authority.

CONFIDENTIALITY:

In the course of their dealing with each other, the undersigned parties may from time to time, disclose certain technical and business information, business plans and strategies which is proprietary and confidential to the disclosing party. The purpose of such disclosures is to enable the parties to engage in performing engineering services as may be request. Confidential information shall mean all information disclosed by either party to the other which relates to the disclosing party's plans and specifications for the project (the "Confidential Information").

The party which received such Confidential Information from the other party agrees to treat the same as confidential and shall not divulge, directly or indirectly, to any other person, firm, corporation, association or entity, for any purpose whatsoever, such confidential information so received, and shall not make use of such information except for the limited, internal purpose referred to above, without the prior written consent of the disclosing party. In addition, the receiving party agrees to use at least the same degree of care to protect confidential information disclosed to it hereunder as it would employ with respect to its own information of like importance which it does not desire to have published or disseminated, but in no event less than reasonable care. Consultant acknowledges that the District is a Public Utility District in Washington State and is subject to the Public Records Act (RCW 42.56), and to the extent that the District determines that any confidential information may be subject to the Public Records Act, Consultant and the District will cooperate with each other to comply with RCW 42.56.

INSURANCE:

The Consultant shall procure and maintain the following insurance which shall provide primary coverage with respect to the services provided under this Agreement.



- a) Commercial General Liability Insurance must include premises//operations, products/completed operation, blanket contractual liability, and broad-form property damage. The policy limit shall not be less than \$1,000,000 per occurrence.
- b) Automobile Liability Insurance must cover owned, non-owned, rented, and leased vehicles. The policy limit shall not be less than \$2,000,000 per occurrence.
- c) Worker's Compensation and Employer's Liability Insurance must be prescribed by applicable law. The employer's liability policy limit shall not be less than \$1,000,000.
- d) Professional Liability Insurance, policy limit shall not be less than \$2,000,000 per occurrence.

The District shall be named as Additionally Insured on policies of insurance as set forth herein. The District, it's officials, officers, agents, and it's elected and appointed officials shall be named as an additional loss payee on all general liability, excess, umbrella and property insurance policies. All insurance provided in compliance with this Agreement shall be primary as to any other valid and collectable insurance or self-insurance programs afforded to or maintained by the District. The Consultant shall submit to the District within fifteen (15) calendar days of the contract start date, a Certificate of Insurance, which outlines the coverage and limits defined in this insurance section. The copies or certifications shall show the insurance coverage, the designated beneficiary, who is covered, the amounts, and the period of coverage.

COMPENSATION:

The Owner shall pay the Consultant for services performed hereunder at the Schedule of Time and Equipment Usage Rates as defined in the attached Table 1; plus subsistence expense, if any, paid to (or on behalf of) employees, plus reasonable transportation cost of employees; plus the cost of prints and telephone or cell phone expenses; plus reasonable rental for the test equipment owned or leased by the Consultant; which sum will be due and payable thirty (30) days after receipt of the invoice from the Consultant of the services performed hereunder and the invoice of the Consultant therefore, including the detailed breakdown of the cost by services performed monthly. The rates shall be agreed to annually by the Owner and the Consultant.

Interest at the rate of five percent (5%) per annum shall be paid by the Owner to the Consultant on any unpaid balance due the Consultant, commencing thirty (30) days after the receipt of the Consultant's invoice, provided that the delay in payment beyond such time shall not have been caused by any conditions within the control of the Consultant. Such interest shall be paid ten (10) days after the amount of interest has been determined by the Consultant. The start date of interest accrual is irrespective of the date of the Owner's approval of the invoice.

Lump Sum Basis:

Per executed Work Authorization Form.

Time & Expense Basis:

• Per attached Rate Schedule, subject to modification under terms of Agreement.

If the District disputes any items in Consultant's invoice for any reason, including the lack of supporting documentation, the District may temporarily delete the disputed item and pay the remaining amount of the invoice. The District will promptly notify Consultant of the dispute and request clarification and/or correction. After any dispute has been settled the Consultant will include the disputed item on a subsequent, regularly scheduled invoice, or on a special invoice for the disputed item only.

INDEMNIFICATION:

To the fullest extent permitted by law, the Consultant hereby acknowledges and agrees that it shall indemnify and hold harmless the Owner against claims, damages, losses and expenses, including but not limited to reasonable attorney's fees, arising directly out of the performance of the Consultant's Work for the Owner provided that any such claim, damage, loss or expense (1) is directly attributable to bodily injury or to injury to or destruction of tangible property (other than to the Work itself) including loss of use resulting there from, and (2) is brought about in whole or in part by any act or omission of the Consultant, its employees, agents or sub-subcontractors. .Should a court of competent jurisdiction determine that this Agreement is subject to RCW 4.24.115, then, in the event of liability for damages arising out of bodily injury to persons or damages to property caused by or resulting from the concurrent negligence of the Consultant and the District, its officers, officials, employees, and volunteers, the Consultant's liability, including the duty and cost to defend, hereunder shall be only to the extent of the Consultant's negligence. It is further specifically and expressly understood that the indemnification provided herein constitutes the Consultant's waiver of immunity under



Industrial Insurance, Title 51 RCW, solely for the purposes of this indemnification. This waiver has been mutually negotiated by the parties. The provisions of this section shall survive the expiration or termination of this Agreement.

MISCELLANEOUS:

- A. Binding Effect. This Agreement shall be binding upon the parties and their respective heirs, personal representatives, administrators, trustees, receivers, successors, and permitted assigns.
- B. Entire Agreement. This Agreement contains the entire agreement of the parties with respect to the subject matter hereof and supersede and replace all prior agreements or understandings and all negotiations, discussions, arrangements, and understandings with respect thereto.
- C. Interpretations. Any uncertainty or ambiguity existing herein shall not be interpreted against either party because such party prepared any portion of this Agreement but shall be interpreted according to the application of rules of interpretation of contracts generally. The headings and table of contents (if any) used in this Agreement are inserted for convenience and reference only and are not intended to be an integral part of or to affect the meaning or interpretation of this Agreement.
- D. Amendment, Modification, Waiver. No amendment, modification, or waiver of this Agreement shall be binding unless executed in writing by the parties hereto. No waiver of any of the provisions of this Agreement shall be deemed or construed to constitute a waiver of any other provision of this Agreement (whether or not similar), nor shall such waiver constitute a continuing waiver unless otherwise expressly provided in writing.
- E. Survival. All terms, covenants, conditions and agreements set forth in this Agreement which by their terms contemplate or require performance or forbearance which is to extend beyond or occur after the termination of this Agreement, specifically including, but not limited to, the provisions relating to the use and disclosure of confidential information, shall survive termination of this Agreement and the termination of Subcontractor's employment (by either party and for whatever reason) and shall nevertheless be and remain fully enforceable as between the parties in accordance with their terms.
- F. Mediation. All claims, disputes, and controversies arising out of or in relation to the performance, interpretation, application, or enforcement of this agreement, including but not limited to breach thereof, shall be referred to nonbinding mediation before, and as a condition precedent to, the initiation of any adjudicative action or proceeding, including arbitration.

Both parties further agree to include a similar mediation provision in all agreements with independent contractors and consultants retained for the Project and to require all independent contractors and consultants also to include a similar mediation provision in all agreements with their subcontractors, sub-consultants, suppliers and fabricators, thereby providing for mediation as the primary method for dispute resolution among the parties to all those agreements.

- G. Washington Law. The parties agree that this Agreement shall be governed by and construed according to the laws of the State of Washington. Any legal action or proceeding with respect to this Agreement or any document related hereto shall be brought in the Superior Court for Jefferson County, Washington and, by execution and delivery of this Agreement, each party hereto hereby accepts for itself and in respect of its property, generally and unconditionally, the jurisdiction of the aforesaid courts. The parties hereto hereby irrevocably waive any objection, including, without limitation, any *forum non conveniens* which any of them may now or hereafter have to the bringing of such action or proceeding in such respective jurisdictions.
- H. Force Majeure. Consultant shall not, in any event, be responsible for any delay or failure in performance hereunder to the extent such delay or failure is caused by an event that is beyond the reasonable control of Subcontractor, including but not limited to fire, flood, earthquake, explosion, war, acts of terrorism, strike, embargo, government requirement, civil or military authority, acts of God, equipment failure or shortages of labor, fuel, materials or equipment, provided that in the event Consultant's performance is so hindered or delayed, Consultant shall notify the Owner of such condition or occurrence as soon as is reasonably possible, and if such condition or occurrence continues for a period of more than fifteen (15) days, the Owner shall have the right to cancel this Agreement and obtain any such services from any third party of its choosing, provided, however, Owner pays Consultant for all Work performed to the date of termination.



- I. Limitation of Liability. To the maximum extent permitted by law, the Owner agrees to limit the Consultant's liability for the Owner's damages to an amount equal to the Consultant's fee hereunder. This limitation shall apply regardless of the cause of action or legal theory pled or asserted, but shall not operate to limit coverage for a loss otherwise covered under an applicable general liability, excess, umbrella or property insurance policy.
- J. Successors, Assigns And Beneficiaries. The District and Consultant, respectively, bind themselves, their partners, successors, assigns, and legal representatives to the covenants of this Agreement. Neither the District nor the Consultant will assign, sublet, or transfer any interest in this Agreement or claims arising therefrom without the written consent of the other. No third party beneficiaries are intended under this Agreement.

IN WITNESS WHEREOF, the parties have executed and entered into this Agreement, effective as of the date and year first above written, fully intending the same to be binding upon themselves, their respective heirs, personal representatives, trustees, heirs, successors and permitted assigns.

ATTEST:		
		Owner
		ВУ
	Secretary	
	Date	Title
ATTEST:		FINLEY ENGINEERING COMPANY, INC.
		Consultant
-		BY
	Secretary	Benjamin L. Humphrey, Vice President

4881-9614-1595, v. 1



Authorization No.: FINLEY ENGINEERING COMPANY, INC. under the terms of the Service Agreement dated		Estimated Cost		\$3,622,764	
				hereby authorizes g engineering services .	
DESCRIPTIO	N OF WORK:				
	D RFP 2022- 003: Provid TTP project areas, as we		_		etwork for JPUD's current and network.
SCHEDULE:					
Start:	May 1 2022		Finish:	DEC 31, 2	2024
BASIS OF CO	OMPENSATION: (Check o	ne)			
x	_ Time & Expense: N-T-E	\$	Invoice Basis:	Monthl	у
	Finley Rate Schedule:	2022JPUD	-		
	Finley Project No.: Lump Sum Basis: N-T-E	\$	Invoice Basis:	100% C	ompete
REMARKS:					
For the Co	onsultant		For the Owne	er	
Approved	ł:		Approved:		
FINLEY EN	IGINEERING COMPANY, IN	<u>C.</u>	Jefferson C	ounty P	UD
ВҮ			ВҮ		
DATE _			DATE		

Owner will sign and date; and return a fully executed copy to Consultant.



Attachment B - Engineering Services Rate Table - 2022JPUD

Title		Description	Hourly Rate	
01	Administration Assistant	Qualified to complete administrative project related coordination and documentation.		
02	Project Design Assistant	Qualified to complete initial technical and design work under the direct supervision of others. Assistant to Project Designer.	\$50.00	
03	Project Designer/ CAD/GIS Technician	Qualified to complete technical and design work under the direct supervision of others.	\$58.00	
04	Project Representative/ Engineering Designer	Qualified to collect field data, making site surveys and observes construction activities of the contractor and maintains construction records. \$72.00		
05	Senior Project Representative/ Engineering Designer	Has extensive background and experience in field data collection, site survey and construction observation. Senior field representative for fulfillment of Project Management. Works with minimal supervision.		
06	Project Manager	Supervises, coordinates and checks all phases of specific projects. Makes most decisions concerning scheduling and technical aspects of the project assigned. Primary liaison to client for Project Management and fulfill ment.		
07	Senior Project Manager	Project Manager Has extensive background and experience in Project Management, supervises, coordinates and checks all phases of specific projects. Capable of making decisions concerning scheduling and technical aspects of the project assigned.		
08	Consulting Coordinator	Possesses education and experience in multiple phases of projects. Coordinates extensively with client's senior staff regarding strategy and objectives of projects.		
09	Senior Consulting Coordinator	Possesses education and experience in all aspects of technology, strategy and operations of client networks. Assist clients in defining scope and strategy of processes and projects.		
10	Senior Consultant	Possesses extensive experience and education in Technical, Strategic and Operational planning for client networks. Assist's Senior Management in planning and defining scope and strategy of processes and projects. Work includes that of a senior Professional Engineer.		

Notes:

- 1. The basic rate applies to work done in the engineer's office. When an employee works away from the engineer's office the actual cost of room, and automobile mileage at IRS standard mileage rate will be charged. Field staff meals shall be charged at a daily rate of \$35.00.
- 2. Travel compensation will consist of a maximum of 4 hours travel time per week and actual mileage billed at IRS standard mileage rate currently in effect both to and from the project.
- 3. For trips involving travel by commercial facilities, the basic hourly rate plus the actual cost of subsistence, commercial facilities, or automobile rental will be charged.
- 4. The above prices include the use of normally used engineering equipment, tools and electrical instruments. Unusually expensive or specialized equipment will be charged for at a negotiated price.
- 5. In the event that an employee works at a job classification lower than his normal classification for the convenience of the engineer, charges shall be on the basis of the lower classification.
- 6. Phone charges, recording fees, shipping, postage, copies, etc. will be invoiced at actual cost.
- 7. In the event that overtime is required due to required project schedules and agreed to in advance by the client, rates will be subject to an overtime multiplier charge of 1.3 times the Basic Rate.

Jefferson PUD No. 1 Fiber to the Premises RFP# 2022-003

D Task Name	Start	2022 A M J J A S O N D J F M A M J J A S O N D J F M A S O N
1 General Coordination	Mon 5/2/22	
2 Prepare Overall Design	Mon 5/2/22	
3 Prepare Permit Applications	Mon 8/1/22	
4 Shoreline Permit - Administrative Review	Mon 9/12/22	
5 Cultural/Tribal Resource Review and Monitor	Mon 9/12/22	
6 General Coordination	Mon 5/2/22	
7 Electronic and Optical Equipment Plans and Specs	Mon 8/1/22	
8 Field Design - Aerial (230 Miles) (5200 Poles)	Mon 6/6/22	
9 Aerial Pole Loading Calculations (5200 Poles)	Tue 7/5/22	
10 Aerial Pole MR Design (5200 Poles)	Mon 8/1/22	
11 Field Design - Buried (197 Miles)	Mon 6/6/22	
12 Construction Drawings and Schematics	Tue 7/5/22	
13 OSP Plans and Specs	Mon 8/1/22	
14 Construction Management and Observation	Mon 10/10/22	
15 As Built Drawings	Mon 12/5/22	
16 Final Documents Close Outs	Mon 12/2/24	

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