

**PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY
327 N WENATCHEE AVENUE
WENATCHEE WA 98801**

REGULAR COMMISSION MEETING

MARCH 7, 2022

Public participation will be by phone or by Microsoft Teams

For phone participation dial: 253-999-5697

Meeting ID: 418-840-905#

Please contact PUD staff at 509-661-4212 to let us know if you intend to participate by phone.

If you would like to participate via Teams, please email rebekah.neumann@chelanpud.org to request the meeting invite

****Please remember to mute your phone or device to reduce background noise****

STUDY SESSION

10:00 AM

1. Pledge of Allegiance and Safety/HPI Minute – Sarah DeLozier
2. Approval of the Agenda
Any item on the Consent Agenda shall be subject to transfer to the Regular Agenda upon request of any Commission member
3. Quarterly Energy Resources Update
4. Tumwater Dam Update
5. Legislative Update
6. Fiber Rate Update
7. Public Comment

BUSINESS SESSION

1:00 PM

Consent Agenda

8. Minutes of the February 22, 2022 Regular Meeting

9. Vouchers: Accounts Payable Summary Report dated March 2, 2022:

- a. Vouchers totaling \$6,704,425.02;
- b. Approval of Customer Deposit Returns and Conservation Incentive payments for the period February 16, 2022 through March 1, 2022 in the amount of \$21,313.28.
- c. Approval of the net Payroll, Warrant Nos. 237755 through 237769 and Advice Nos. 730051 through 730816 for the pay period ending February 13, 2022 in the amount of \$2,148,284.70.
- d. Approval of Warrant Nos. 28318 through 28380 totaling \$10,840.30 for claim payments from the workers' compensation self-insurance fund for the period ending February 28, 2022.
- e. Approval of Parks Reservation System customer refunds for the period February 1, 2022 through February 24, 2022 in the amount of \$70.00.
- f. Approval of debt service paid with reserve account interest earnings of \$5,082.63 for the period March 1, 2022 through March 31, 2022.

Regular Agenda

- 10. A RESOLUTION AUTHORIZING THE GENERAL MANAGER TO ENTER INTO A SERVICES AGREEMENT (SA NO. 22-12086) WITH FOUR PEAKS ENVIRONMENTAL SCIENCE & DATA SOLUTIONS, LLC. OF WENATCHEE, WASHINGTON FOR CONDUCTING A 2022 ROCK ISLAND SUBYEARLING FISH PASSAGE AND BEHAVIOR STUDY
- 11. A RESOLUTION REJECTING ALL BIDS AND DECLARING THAT NO BIDS WERE RECEIVED FOR THE PURCHASE OF THE SYSTEM OPERATIONS BACKUP CONTROL CENTER (BID NO. 20-17) AND AUTHORIZING THE SYSTEM OPERATIONS BACKUP CONTROL CENTER BE OBTAINED BY NEGOTIATION
- 12. A RESOLUTION DECLARING VIBROSYSTEM, INC. OF LONGUEIL, QUEBEC, CANADA AS THE SOLE SOURCE SUPPLIER OF ONLINE CONDITION MONITORING EQUIPMENT AND TECHNICAL SERVICE (SA NO. 22-12105) FOR USE AT THE DISTRICT'S HYDROELECTRIC FACILITIES
- 13. A RESOLUTION RESCINDING AND REPLACING RESOLUTION NO. 18-14274 AND ADOPTING NEW TELECOMMUNICATION RATES FOR WHOLESALE TELECOMMUNICATIONS SERVICES BY SERVICE PROVIDERS ON THE DISTRICT'S BROADBAND SYSTEM

REGULAR COMMISSION MEETING AGENDA

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14. A RESOLUTION AMENDING THE DISTRICT'S ELECTRIC RATE SCHEDULE 1 RESIDENTIAL SERVICE TO INCLUDE PROVISIONS OF THE DISTRICT'S ADVANCED METERING INFRASTRUCTURE OPT-OUT PROGRAM AS ADOPTED VIA RESOLUTION NO. 20-14414
15. A RESOLUTION RATIFYING FIELD WORK ORDER/CHANGE ORDER NOS. 1, 1-PC (PRECONSTRUCTION), 2-PC, 3-PC, 1-GMP1, 2-GMP1, 3-GMP1 AND 4-GMP1, AND AUTHORIZING THE ISSUANCE OF A GUARANTEED MAXIMUM PRICE (GMP) AMENDMENT NO. 2 TO NORTHBANK CIVIL AND MARINE, INC. OF VANCOUVER, WA TO PROVIDE A GUARANTEED MAXIMUM PRICE AND SCHEDULE FOR THE UPGRADE OF UNITS U1 AND U2 UNDER CONTRACT NO. 20-14 FOR THE ROCK ISLAND POWERHOUSE NO. 2 DRAFT TUBE GATE CYLINDER AND HYDRAULIC POWER UNIT UPGRADE
16. Manager Items
17. Commission Travel
18. Commission Items
 - a. Annual Strategy Partners Update
Proposed Motion: Move to set a special meeting on Tuesday, April 19, 2022 @ 9:30am to be held virtually for the purpose of holding an Annual Strategy Partners Update meeting. Virtual meeting information will be posted on the PUD website.
19. Follow-up on Delegation of Action Items from Previous Board Meeting
20. Delegation of Action Items
21. Additional Public Comment
Members of the public are encouraged to ask specific questions after each item presented. This agenda item is for additional comments/questions related to matters not on the agenda.
22. Matters of general business as may necessarily come before the Commission
23. Executive Session: To discuss with legal counsel agency enforcement actions, litigation, potential litigation to which the District or its board is, or is likely to become, a party, and/or legal risks, as authorized by RCW 42.30.110(1)(i) and to plan the strategy or position to be taken during the course of collective bargaining, as authorized by RCW 42.30.140(4)(b)

This agenda and resolutions (if any) may be revised by the Commission as appropriate.

RESOLUTION NO. _____

A RESOLUTION AUTHORIZING THE GENERAL MANAGER TO ENTER INTO A SERVICES AGREEMENT (SA NO. 22-12086) WITH FOUR PEAKS ENVIRONMENTAL SCIENCE & DATA SOLUTIONS, LLC. OF WENATCHEE, WASHINGTON FOR CONDUCTING A 2022 ROCK ISLAND SUBYEARLING FISH PASSAGE AND BEHAVIOR STUDY

FACTUAL BACKGROUND AND REASONS FOR ACTION

Resolution No. 17-14215 requires that the Commission, by resolution, authorize Service Agreements that exceed \$500,000.

Public Utility District No. 1 of Chelan County, Washington (District) desires subyearling Chinook salmon passage and behavioral data to make decisions regarding the plausibility of Habitat Conservation Plan (“HCP”) compliance studies and to potentially optimize future project operations at the Rock Island Hydroelectric Project.

Four Peaks Environmental Science & Data Solutions, LLC of Wenatchee, WA has prepared a proposal to perform the 2022 Rock Island subyearling passage and behavior study for an estimated cost of \$750,000.

In 2021, the District entered into a similar Service Agreement with Four Peaks Environmental Science & Data Solutions, LLC to conduct the first year of Rock Island subyearling passage and behavior studies. Four Peaks Environmental Science & Data Solutions, LLC successfully completed the behavioral study to the satisfaction of the District.

It is District staff's recommendation that it is in the best interest of the District to enter into a Services Agreement with Four Peaks Environmental Science & Data Solutions, LLC for the above-described services.

The General Manager of the District has reviewed staff's recommendation and concurs in the same.

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, as follows:

Section 1. The General Manager of the District is hereby authorized to enter into a Services Agreement with Four Peaks Environmental Science & Data Solutions, LLC

for the 2022 Rock Island subyearling fish passage and behavior study in an amount not to exceed \$750,000 without prior Commission approval. A copy of the Agreement is on file in the offices of the District.

DATED this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal

RESOLUTION NO. _____

A RESOLUTION REJECTING ALL BIDS AND DECLARING THAT NO BIDS WERE RECEIVED FOR THE PURCHASE OF THE SYSTEM OPERATIONS BACKUP CONTROL CENTER (BID NO. 20-17) AND AUTHORIZING THE SYSTEM OPERATIONS BACKUP CONTROL CENTER BE OBTAINED BY NEGOTIATION

FACTUAL BACKGROUND AND REASONS FOR ACTION

The Commission, by Resolution No. 17-14215, delegated authority to the General Manager to advertise, award and execute contracts when the total contract price is \$3,000,000 or less.

District staff prepared bidding documents for Bid 20-17, System Operations Backup Control Center.

Sealed proposals were invited and published in accordance with RCW 54.04.070 and said bids were opened on February 16, 2022 at 2:15 P.M. Pacific Time in the offices of the District.

One (1) bid was received pursuant to that invitation. The bid proposal received from Halme Builders, Inc. of Davenport, Washington exceeded the engineer's estimate by over fifteen percent (15%).

District staff is of the opinion that the bid was non-responsive and should be rejected. Resolution No. 17-14215 requires that the rejection of bids must come before the Commission for action when staff is recommending an action other than rebidding.

Pursuant to RCW 54.04.080, the District may procure the work on the open market and negotiate a contract rather than re-advertising if no bids are received. District staff recommends that, due to time constraints and project requirements, the System Operations Backup Control Center be procured by negotiation, rather than re-advertising for bids.

The General Manager of the District has reviewed District staff's recommendation and concurs in the same.

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY as follows:

Section 1. The bid received to furnish the System Operations Backup Control Center (Bid No. 20-17) is rejected. District staff is authorized to obtain the System Operations Backup Control Center by negotiation and the General Manager (or his designee) is authorized to execute a contract for the same with acceptable terms and conditions.

DATED this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal

RESOLUTION NO. _____

A RESOLUTION DECLARING VIBROSYSTEM, INC. OF LONGUEIL, QUEBEC, CANADA AS THE SOLE SOURCE SUPPLIER OF ONLINE CONDITION MONITORING EQUIPMENT AND TECHNICAL SERVICE (SA NO. 22-12105) FOR USE AT THE DISTRICT'S HYDROELECTRIC FACILITIES

FACTUAL BACKGROUND AND REASONS FOR ACTION

On June 13, 2011, the District's Board of Commissioners declared VibroSystM Inc. to be the sole source provider for the supply of Machine Condition Monitoring Equipment and Technical Services and authorized District staff to negotiate a contract for Machine Condition Monitoring Equipment and Technical Services (Resolution 11-13660). The District and VibroSystM entered into Contract No. 11-50 for the supply of Online Condition Monitoring Equipment and Technical Services for a five-year period. The completion of Contract No. 11-50 occurred on September 13, 2016.

On November 7, 2016 the District's Board of Commissioners declared that VibroSystM Inc continue to be the sole source supplier for Online Condition Monitoring Equipment and Technical Services (Resolution 16-14087). The District executed Contract 16-77 with VibroSystM Inc. for a five-year period on March 8, 2017. On February 3, 2020 the District's Board of Commissioners authorized the General Manager to execute Field Work Order/Change Order No. 3 to this Contract 16-77 to cover additional Online Condition Monitoring Equipment and Technical Services (Resolution 20-14423). This Contract No. 16-77 will expire on March 7, 2022.

The District has been installing VibroSystM, Inc. Online Condition Monitoring Equipment and utilizing their technical services since 2002. Their technology is unique and only available from VibroSystM, Inc. VibroSystM has continued to develop and have implemented technologies that are unique to VibroSystM, Inc. equipment.

Pursuant to RCW 54.04.070 and 39.04.280, the District may, when there is clearly and legitimately a sole source of supply, waive the statutory competitive bidding requirements otherwise applicable to the purchase of equipment. Resolution No. 17-14215 requires that a declaration for sole source purchases over the statutory limits (\$60,000 per month) must come before the Commission for action.

District staff has determined that it would be in the best interest of the District to continue with its designation of VibroSystM, Inc. of Longueuil, Quebec, Canada as the sole source supplier for Online Condition Monitoring Equipment and Technical

Services in an amount not to exceed \$3,000,000.00. Staff also recommends that the competitive bidding requirements of RCW 54.04.070 be waived.

The General Manager has reviewed staff's recommendations and concurs in the same.

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON, as follows:

Section 1. The Commission declares VibroSystM, Inc. to be the sole source supplier for Online Condition Monitoring Equipment and Technical Services.

Section 2. The competitive bidding requirements of RCW 54.04.070 are hereby waived due to the designation of VibroSystM, Inc. as the sole source supplier for Online Condition Monitoring Equipment and Technical Services.

Section 3. The General Manager or his designee is authorized to enter into a contract with VibroSystM, Inc for Online Condition Monitoring Equipment and Technical Services at a cost not to exceed \$3,000,000.00 without prior Commission approval for a term of five years. A copy of the contract will be on file in the offices of the District.

Dated this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal

RESOLUTION NO. _____

A RESOLUTION RESCINDING AND REPLACING RESOLUTION
NO. 18-14274 AND ADOPTING NEW TELECOMMUNICATION
RATES FOR WHOLESALE TELECOMMUNICATIONS SERVICES
BY SERVICE PROVIDERS ON THE DISTRICT'S BROADBAND
SYSTEM

FACTUAL BACKGROUND AND REASONS FOR ACTION

Pursuant to RCW 54.16.330 and RCW 54.16.005, the District has constructed, and may cause to be constructed from time to time, a Broadband System through which the District is authorized to provide wholesale telecommunications services and facilities ("hereinafter Telecommunications Services") to entities authorized to provide telecommunications services to the general public and internet service providers at reasonable and nondiscriminatory rates.

The District must comply with the laws of the State of Washington, RCW 54.24.080, sound utility principles and the covenants of the District's Bond resolutions in establishing rates. The District is required to establish, maintain and collect rates which are fair, nondiscriminatory and adequate to provide revenues sufficient for the payment of the principal and interest on such revenue obligations for which payment has not otherwise been provided and all payments which the District is obligated to set aside in any special fund or funds created for such purpose. The District must also collect revenues for the proper operation and maintenance of the public utility and all necessary repairs, replacements and renewals.

In determining non-preferential and nondiscriminatory rates, terms and conditions, RCW 54.16.340 allows the District to consider such matters such as service quality, cost of service, technical feasibility of connection points on the District's system, time of response to service requests, system capacity, and other matters reasonably related to the provision of wholesale telecommunications services.

RCW 54.16.330 requires the District to account for any and all revenues and expenditures related to its wholesale telecommunications facilities and services separately from revenues and expenditures related to its internal telecommunications operations.

The District previously adopted rates for Telecommunications Services, pursuant to Resolution No. 18-14274.

From time to time, District staff reviews telecommunications services offered, actual usage and costs of the services, along with rate analysis to review market conditions. Staff is recommending amending the Telecommunications Rates to combine the Aggregate Bandwidth Transport rate range with base Data Local Loop (DLL) rates, move DLL offerings to symmetrical services and restructure the Virtual Local Area Network (VLAN) services to provide incremental bandwidth options with additional services. Based on that action, staff recommends the following changes to the Telecommunications Rates:

- Restructure of VLAN services
 - Addition of 10 Gbps service
 - Addition 100 Mb port with 100 Mbps bandwidth service
 - Elimination of burstable options
 - Elimination of bulk MAC address services
 - Elimination of term rates
- Combine Aggregate Transport Bandwidth rate range with DLL base rates
 - Elimination of Aggregate Transport Bandwidth rate range
- Move DLL service offerings to symmetrical services
 - Addition of 1 Gbps X 1 Gbps service
 - Addition of wireless service
 - Eliminate 100 Mbps X 10 Mbps service
 - Eliminate 1 Gbps X 100 Mbps service

As set forth in Exhibit A, Telecommunications Rates, attached hereto and incorporated herein by this reference.

Based upon District staff's evaluation and analyses of the proposed changes to the Wholesale Telecommunications Rates, District staff recommends and the General Manager concurs, that the Wholesale Telecommunication Rates be adopted as set forth in this resolution at Exhibit A, attached hereto and incorporated herein by this reference, to be effective April 1, 2022.

The adoption of this rate resolution is not a major action under the State Environmental Policy Act, and as such is categorically exempt under SEPA guidelines, WAC Ch. 197-11-800(15)(i).

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON, as follows:

Section 1. The Commission hereby rescinds Resolution No. 18-14274 and adopts those Telecommunications Services categories, rates and conditions for service, as set forth in Exhibit A attached, entitled *Wholesale Telecommunication Services Rates*, pursuant to RCW 54.16.330 effective as of April 1, 2022.

DATED this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal

WHOLESALE TELECOMMUNICATION SERVICES RATES

1. General Conditions of Service: All Wholesale Telecommunications Services shall be subject to Availability. In addition, all of the following conditions shall be met for District provision of all Telecommunication Services referenced.

- A. Service Providers shall enter into a Telecommunications Access and Transport Services License Agreement (“Agreement”), in the form(s) approved by the District, make timely deposit and payment, as set forth in the Agreements, in order to avoid termination of service.
- B. Service Providers will be charged on a monthly basis according to the rates set in this document. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to and be the responsibility of the Service Provider.
- C. Unless otherwise specified, charges include the Network Termination Equipment (NTE) device at the District’s specified demarcation point. The Service Provider must supply, at its own cost, any additional equipment required to deliver services.
- D. Service Providers shall submit service requests to the District through the District’s approved and designated submission process. Upon approval of the request form and in compliance with District regulations, the service request will be completed at such time designated by the District.
- E. Service Providers will be charged Non-Recurring Charges (NRC) and other fees as set forth in the Wholesale Telecommunications Services Rates policy and the Wholesale Telecommunications Services Fees & Charges policy.
- F. Any request for special services outside of this document, Telecommunications Rates, shall be on an Individual Case Basis (ICB). All charges and fees incurred and corresponding rates will be determined at the time of request.

2. Definitions – Unless the context clearly indicates otherwise, the following definitions shall apply to this document, Telecommunications Rates.

24/7: An acronym to describe availability. The “24” relates to the number of hours in a day. The “7” relates to the number of days in a week.

95th Percentile: The pricing for Burstable Rate billing is based upon sustained bandwidth usage, which is determined on a monthly basis. The methodology for measuring sustained usage is as follows: The Network Terminating Equipment (NTE) is polled every 5 minutes for total bits ingress and total bits egress (on VLAN service polling only occurs on the ingress interface). The data is divided by 300 (the number of seconds in a 5-minute interval). This gives two averages (ingress, egress) for the 5-minute period. The averages become data points (a total of 17,280 in a 30-day month) which are tracked over the course of

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the customer's monthly billing cycle all 17,280 data points are then ranked in ascending order the top 5% of the data points (864 measurements in a 30-day month) are disregarded and the customer is billed at the 95% level of usage. In the case of VLAN service as noted above only the INGRESS interface is polled therefore reducing the corresponding measurements by half. The usage on the ingress port is then applied for billing at the 95th percentile.

Asymmetrical: The term asymmetric (also asymmetrical or non-symmetrical) refers to any system, in which the data speed or quantity differs in one direction as compared with the other direction, averaged over time. Asymmetrical data flow can, in some instances, make more efficient use of the available infrastructure than symmetrical data flow, in which the speed or quantity of data is the same in both directions, averaged over time.

Availability: May be defined for all Telecommunication Services through standards reasonably determined by District staff or policies established by the District Board of Commissioners.

Backhaul: In a hierarchical telecommunications network the backhaul portion of the network comprises the intermediate links between the core network, distribution segments, and access endpoints typically aggregating telecommunications services or signals for the purpose of efficiently providing communication with network and Service Provider resources and products.

Bandwidth: The amount of data that can be passed along a communications channel in a given period of time. For analog devices, such as standard telephones, bandwidth is the range of frequencies that can be transmitted and is expressed in hertz (cycles per second). For digital devices, bandwidth is measured in bits per second. The wider the bandwidth, the faster data can be sent.

Baseband: A transmission medium through which digital signals are sent without frequency shifting. In general, only one communication channel is available at any given time.

Bit: Bit is a contraction of the term Binary digiT. It is the smallest unit of information (data) a computer can process, representing either high or low, yes or no, or 1 or 0. It is the basic unit in data communications. A bit can have a value of zero (a space) or one (a mark).

Broadband: A transmission method pertaining to or denoting a type of high-speed data transmission in which the bandwidth is shared by more than one simultaneous signal.

Burstable Rate: Burst is a term used in a number of information technology contexts to mean a specific amount of data sent or received in one intermittent operation. It can be contrasted with *streamed, paced, or continuous*. Generally, a burst operation implies that some threshold has been reached that triggers the burst. Depending on the particular technology, a burst operation can be intermittent at a regular or an irregular rate.

CIR-Committed Information Rate: An acronym which specifies the amount of guaranteed bandwidth (measured in bits per second) on a transmission service. Typically, when

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acquiring a network service, a network provider may specify the CIR level that is less than or equal to the port speed of the circuit and/or service. The network provider may provide Service Level Assurances in which conforming data not exceeding the CIR level will be delivered through the provider's network circuit only and does not provide assurance beyond the service's Network Terminating Equipment (NTE). The presence of a CIR on a service does not eliminate data traffic exceeding the CIR. Data traffic exceeding the CIR may be transmitted upon the medium, however that traffic exceeding the CIR is queued and placed upon the medium and is subject to discard should the circuit or service exceed the CIR threshold and experience network congestion.

Coarse Wave Division Multiplex (CWDM): Coarse wavelength-division multiplexing (WDM) is a technology which multiplexes a number of optical carrier signals onto a single optical fiber by using different wavelengths (i.e., colors) of laser light defined under ITU-T G.694.2.

Colocation: In general, co-location is moving or placing things together, sometimes implying a proper order. This term (often spelled "colocation") is used to mean the provision of space for a customer's telecommunications equipment on the service provider's premises. For example, a Web site owner could place the site's own computer servers on the premises of the Internet service provider (ISP). Or an ISP could place its network routers on the premises of the company offering switching services with other ISPs. The alternative to co-location is to have the equipment and the demarcation point located at the customer's premises. The District offers co-location on a wholesale basis to Service Providers.

Critical Dark Fiber Pathway. A Critical Path Dark Fiber Pathway is formally defined by the associated Critical Path Dark Fiber Service Level Agreement (SLA) contained within the Telecommunications Facilities License Agreement. The SLA defines a response and restoration time along with credits should the SLA not be met.

DLL-Data Local Loop: Term used to describe the connection between the Service Provider's End-users and a central aggregation point on a network often termed a Central Office. *See Also: Local Loop*

DS-1 (T-1) Business Transport Services: Delivers a DS-1 (T-1) standard 1.544 Mbps in support of 24 voice or data connections each encoded at 64Kbps.

End-user: A customer of a Service Provider receiving telecommunications services over the District's telecommunications network. Each customer billed by the Service Provider is considered a separate End-user. For example, a Duplex with each unit-owner or tenant billed separately by the Service Provider is considered two End-users.

Ethernet: Layer 2 networking technology widely used as the connection mechanism for local area networking. Originally introduced in 1980, Ethernet has become the defacto standard for many networked systems worldwide. Computing systems utilize Ethernet for communicating by assembling data into packets which are transmitted over the wire or "Ether". Ethernet speeds

WHOLESALE TELECOMMUNICATION SERVICES RATES

originally began widespread adoption at the 10 Mbps level and have since increased at 10x intervals so that today 100 Mbps is the typical speed for computers on Local Area Network Connections. 1000 Mbps or 1Gbps (Gigabits/sec) is also common to high-speed workstations, computers, and homes, 10 Gbps is typically a metro backbone link, and 100 Gbps are typically used on Internet Backbone connections between providers.

Fixed Rate: A specific amount of data sent or received in one continuous operation, usually done at a regular or preset rate.

Gateway: A device used to provide an entrance and exit to a communications network.

Gbps: Gigabits per second. Gig is one thousand million bits per second.

Internet Access Provider (IAP): One of several large companies that offers access directly to the Internet. An IAP has the equipment and the telecommunication line access required to have a point-of-presence (PoP) on the Internet for the geographic area served.

Internet Protocol (IP) Multicast: A method of sending Internet Protocol (IP) datagrams to a group of interested receivers in a single transmission. It is often employed for streaming media applications on the Internet and private networks. The method is the IP-specific version of the general concept of multicast networking. IP multicast is a technique for one-to-many and many-to-many real-time communication over an IP infrastructure in a network. It scales to a larger receiver population by requiring neither prior knowledge of a receiver's identity nor prior knowledge of the number of receivers. Multicast uses network infrastructure efficiently by requiring the source to send a packet only once, even if it needs to be delivered to a large number of receivers. The nodes in the network (typically network switches and routers) take care of replicating the packet to reach multiple receivers such that messages are sent over each link of the network only once.

ISP-Internet Service Provider: An Internet Service Provider may provide other services than just Internet as the term implies. *See Also: Service Provider.*

Layer 2: Layer 2 refers to the Data Link layer of the commonly referenced multilayered communication model, Open Systems Interconnection (OSI). The Data Link layer is concerned with moving data across the physical links in the network. In a network, the switch is a device that redirects data messages at the layer 2 level, using the destination Media Access Control (MAC) address to determine where to direct the message.

Layer 3: Layer 3 refers to the Network layer of the commonly referenced multilayered communication model, Open Systems Interconnection (OSI). The Network layer is concerned with knowing the address of the neighboring nodes in the network, selecting routes and quality of service, and recognizing and forwarding to the Transport layer incoming messages for local host domains.

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Local Loop: A local loop is the connection from a communication company's central office in a locality to its customers' premises, at homes and businesses. The District currently provides Local Loops via fiber-optics.

MAC/MAC Address: MAC is an abbreviation and acronym applied to the term Media Access Control. A "MAC Address" is a hardware identification number that uniquely identifies each device on a network. The MAC address is manufactured into every network card, such as an Ethernet card, and therefore cannot be changed. A network device needs to have a unique MAC address. MAC addresses are made up of six two-digit hexadecimal numbers, separated by colons. For example, an Ethernet card may have a MAC address of 00:0d:83:b1:c0:8e.

Mbps: Mbps stands for millions of bits per second or megabits per second and is a measure of bandwidth (the total information flow over a given time) on a telecommunications medium. Depending on the medium and the transmission method, bandwidth is also sometimes measured in the Kbps (thousands of bits or kilobits per second) range or the Gbps (billions of bits or gigabits per second) range.

Meet-me: A pre-determined point between communications networks, where information is transferred and/or cross connected.

Metro Ethernet Forum (MEF): Metropolitan Ethernet (Metro Ethernet) refers to using carrier Ethernet technology in metropolitan networks. Corporations, academic institutions and government agencies in large cities use Metro Ethernet to connect branch campuses and offices to the Internet. Metro Ethernet connects business local area networks (LAN) and end users to wide area networks (WAN) or the Internet. Metro Ethernet is a service provider collection of Layer 2 or Layer 3 switches or routers connected through optical fiber. The topology may be a ring, hub and star or full or partial mesh.

MRC: Monthly Recurring Charge, occurring every month.

Multihomed/Multihoming: Refers to a computer or device connected to more than one computer network or service. It can be used, for example, to increase the reliability of an Internet Protocol (IP) network, such as a user served by more than one Internet service provider.

NRC: Non-Recurring Charge, a one-time charge.

NTE-Network Terminating/Termination Equipment: Defines the terminating device installed by the District, delivering services to the Service Provider's End-users. The term NTE is interchangeable with Customer Premises Equipment (CPE), Premise Gateway Device (PGD), and/or Optical Network Terminal (ONT).

ONT-Optical Network Terminal: Defines the terminating device installed by the District, delivering services to the Service Provider's End-users. Also, may be referred to as a Premises Gateway Device (PGD), Customer Premises Equipment (CPE) and/or Network Terminating Equipment (NTE).

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Pathway: A communications pathway is analogous to a circuit, which connects two or more points to exchange information.

PGD-Premises Gateway Device: Defines the terminating device installed by the District, delivering services to the Service Provider's End-users. Also, may be referred to as an Optical Network Terminal (ONT), Customer Premises Equipment (CPE) and/or Network Terminating Equipment (NTE).

Point-to-Point: Connecting location A with location B via communications circuits.

Point-to-Multipoint: Connecting multiple locations together via communication circuits.

PoP: A point-of-presence (PoP) is an access point to the Internet with a unique Internet Protocol (IP) address. An Internet service provider (ISP) has a point-of-presence on the Internet and probably more than one.

POTS: Plain Old Telephone Service. The basic service supplying standard single line telephones, telephone lines and access to the public switched network.

Port(s): The physical interface between a device and a circuit, located on the End-user Gateway device for provision of Service Providers' telecommunications services.

Port Charge: The charge for the physical interface between a device and a circuit, located on the End-user Gateway device for provision of Service Providers' telecommunications services.

PRI-Primary Rate Interface. A term used to describe a DS-1 rate access to a network that supports standard combinations of channels with a 1536 Kbit/s payload.

Provision / Provisioning, Re-provisioning: The act of placing service upon a broadband network. Provisioning is typically done through the ordering of a service. Re-provisioning is often done in the process of troubleshooting in an effort to reset the service.

Service Provider: Includes Third Party Services Providers as defined in the Electric Service Regulations and other authorized entities including Public Utility Districts and NoaNet.

Service-Off Provisioning Hold: Allows a POTS line to be temporarily turned off during seasonal periods of non-use, while holding the provisioning information including the phone number for an end-user.

SONET: Synchronous Optical NETwork. An optical interface standard that allows flexibility in transporting many digital signals with different capacities, and to provide a design standard for manufacturers.

WHOLESALE TELECOMMUNICATION SERVICES RATES

STS-1/STS-3: Synchronous Transport Signal level 1. An electrical signal that is converted to or from SONET's optically based signal; equivalent to the OC-1 signal of 51.84 Mbps. STS-3 is equivalent in bandwidth to 3 STS-1's.

Symmetrical: The term symmetric (also symmetrical) refers to any system in which data speed or quantity is the same in both directions, averaged over time. Examples include two-way radio, standard twisted-pair telephone Internet connections, cable modem Internet connections in which the cable is used for transmission as well as for reception, and full-motion videoconferencing.

TDM-Time Division Multiplex: A technique for transmitting a number of separate data, voice and/or video signals simultaneously over one communications medium by quickly interleaving a piece of each signal one after another.

UPS-Uninterrupted Power Supply: A device that supplies reliable and continuous power to the Network Termination Equipment (NTE). The UPS system is comprised of two major components, which may be integrated into a single enclosure, which include the power supply unit and the sealed battery (charged by the power supply unit).

Video/Video Transport: Video is the recording, producing, or broadcasting of moving visual images. Video Transport is the placing of video on a medium for transmission or broadcasting.

VLAN: A virtual (or logical) LAN is a local area network with a definition that maps workstations on some other basis than geographic location (for example, by department, type of user, or primary application). The virtual LAN controller can change or add workstations and manage load balancing and bandwidth allocation more easily than with a physical picture of the LAN. Network management software keeps track of relating the virtual picture of the local area network with the actual physical picture.

Voice over Internet Protocol (VoIP): A technology for transmitting ordinary telephone calls over the Internet using packet-linked routes.

Wireless: Wireless is a method of transmitting data without wires using a system of transmitters and antennas.

Wholesale Telecommunications Services (or sometimes referred to herein as Telecommunications Services): The provision of telecommunications services or facilities for resale by authorized Service Providers, all as defined by RCW 54.16.005 as now exists or as may be hereafter amended.

WHOLESALE TELECOMMUNICATION SERVICES RATES**PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON
RATE SCHEDULE 100****WHOLESALE TELECOMMUNICATION SERVICES – DATA LOCAL LOOP (DLL) SERVICES**

AVAILABLE: To Service Providers and District Business Units desiring to use the District's Wholesale Broadband System. District reserves the right at its sole option to discontinue services listed in this rate schedule at any time. All services are subject to Availability.

EFFECTIVE: The rates herein are effective **April 1, 2022**.

PRODUCT SUMMARY: The District offers local loop data connectivity to the End-user premises, to Service Providers. Data Local Loop (DLL) services includes Domain Name System (DNS) services. Local loops are offered in Symmetrical form. Other optional services in Rate Schedule 100 include IP Multicast and VOIP services when purchased with the DLL or other data-type service provided by an ONT including but not limited to VLAN service. DLL Services are best effort services for residential and business internet access. Specifications for residential and business DLL services are listed below in Table 1 and 2, respectively, at the end of this schedule. For the operation of commercial type services such as servers a dedicated bandwidth service other than DLL must be used from schedule 200, 300 or 400.

INTERNET PROTOCOL MULTICAST (IPTV): Internet Protocol (IP) Multicast (IPTV) charges shall apply where the Service Provider provides IPTV services to End-users. A one-time Non-Recurring Charge will be charged to establish IPTV Quality of Service parameters.

BILLING RATES: Use of the Broadband System shall be billed in accordance with the rates listed below. Service Providers will be charged on a monthly basis according to the rates set forth herein. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to the Service Provider by the District and the Service Provider shall be responsible for payment. Rates are per Service Provider's End-users and may not be resold to more than one End-user.

PROVISIONING: Services are offered on a commercially reasonable basis and are provisioned to allow the bandwidth as specified. Actual bandwidth obtained by Service Providers and/or their End-users is subject to many factors, not within District control and is not

WHOLESALE TELECOMMUNICATION SERVICES RATES

guaranteed. Upon Service Provider request, and at the District's discretion, lower or intermediate bandwidth packages may be provisioned for the Service Provider at the same pricing as the next higher bandwidth package.

SERVICE LEVEL: Service includes Network Operations Center (NOC) support and local network administration support. If field dispatch is requested outside normal defined business hours, a dispatch fee will be assessed. Wireless service only where available. All services provided on a 24/7 basis.

NON-RECURRING CHARGES (NRC): Non-Recurring Charges (NRC)'s may apply to each of the Services. Fees will be charged per order, regardless of number of services. Installation fee will only be charged when installation of an NTE is required. Service Providers will incur charge at the time of service billing. Fees and any other associated charges will be billed at time-of-service billing. Additional charges for special equipment may apply. See Wholesale Telecommunications Services Fees & Charges Schedule.

Data Local Loop – Residential*(See Table 1 Below for Specifications)	Unit of Measure	Monthly Rate
Data Local Loop Access Fee per End-user.		
Wireless Service Connection to SP – up to 100 Mbps X 100 Mbps	Each	\$22.70
Ethernet Service Connection to SP - up to 100 Mbps X 100 Mbps	Each	\$22.70
Ethernet Service Connection to SP - up to 1 Gbps X 1 Gbps	Each	\$29.75

Data Local Loop – Business **(See Table 2 Below for Specifications)	Unit of Measure	Monthly Rate
Data Local Loop Access Fee per End-user.		
Ethernet Service Connection to SP - up to 100 Mbps X 100 Mbps	Each	\$50.00
Ethernet Service Connection to SP - up to 1 Gbps X 1 Gbps	Each	\$60.00

WHOLESALE TELECOMMUNICATION SERVICES RATES

SPECIFICATIONS

*Table 1
Residential DLL (E-Tree)

EVC Service Attribute	Values
EVC Type	Rooted-Multipoint
EVC ID	HSI
UNI List	1-Root UNI \geq 2 Leaf UNIs {<U1, Role=Root>, <U2, Role=Leaf>, <U3, Role=Leaf>}
Max Number of UNIs	Must be \geq 3
Unicast Service Frame	Conditional – Dynamic learning DHCP
Broadcast Service Frame	Discard
CE-VLAN ID Preservation	Not Enabled
CE-VLAN CoS Preservation	Not Enabled
MTU	\leq 1500
EVC Performance	CoS Name =BE
Intended Customer	Single End-User
Source MAC Address Limit	2
Intended Gateway	Residential Gateway with Private IP Addresses
Static IP Routing	No

Key Attributes:

- IP Address must be assigned dynamically via DHCP
- Maximum of 2 DHCP leases
- Static IP assignment and/or static IP routing is not allowed
- MTU is fixed 1500 Bytes
- All traffic will be classified as “best effort”
- The DLL service is for one single End-User only and is not to be sold or re-sold
- MAC addresses are limited to 2 source MAC addresses
- The intended End-User device is a Residential Gateway Firewall using Private IP addresses on the LAN translated to a publicly routable IP address on the WAN obtained via DHCP

WHOLESALE TELECOMMUNICATION SERVICES RATES

**Table 2
Business DLL (E-Lan)

EVC Service Attribute	Values
EVC Type	Point-to-Point
EVC ID	HSI
UNI List	2 Root UNIs {<U1, Role=Root>, <U2, Role=Root>}
Max Number of UNIs	2
Unicast Service Frame Delivery	Deliver Unconditionally
Broadcast Service Frame Delivery	Deliver Unconditionally
Multicast Service Delivery	Deliver Unconditionally
CE-VLAN ID Preservation	Not Enabled
CE-VLAN CoS Preservation	Not Enabled
MTU	≤ 1500
EVC Performance	CoS Name =BE
Intended Customer	Single End User
Source MAC Address Limit	10/UNI
Intended Gateway	Router with Private or Public Statically Routed IP Addresses
Static IP Routing	Yes

Key Attributes

- IP Address must be assigned dynamically via DHCP
- Point-to-point from RSP ENNI to End-User only
- Maximum of 10 DHCP leases
- Static IP routing is allowed
- MTU is fixed 1500 Bytes
- All traffic will be classified as “best effort”
- The DLL service is for one single End-User only and is not to be sold or re-sold
- MAC addresses are limited to 10 source MAC addresses
- The intended End-User device is an IP Router

WHOLESALE TELECOMMUNICATION SERVICES RATES
PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON
RATE SCHEDULE 200
WHOLESALE TELECOMMUNICATION SERVICES –VIRTUAL LOCAL AREA NETWORK (VLAN)

AVAILABLE: To Service Providers and the District desiring to use the District’s Wholesale Broadband System. District reserves the right at its sole option to discontinue services listed in this rate schedule at any time. All services are subject to Availability.

EFFECTIVE: The rates herein are effective **April 1, 2022**.

PRODUCT SUMMARY: The District offers Layer 2, Point-to-Point and Point-to-Multipoint Ethernet transport VLAN with Metro Ethernet Forum attributes applied. Services offered as Fixed Rate or Burstable Rate products.

BILLING RATES: Use of the Broadband System shall be billed in accordance with the rates listed below. Service Providers will be charged on a monthly basis according to the rates set forth herein. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to the Service Provider by the District and the Service Provider shall be responsible for payment. Rates are per Service Provider’s End-users and may not be resold to more than one End-user.

PROVISIONING: Services are offered on a commercially reasonable basis and are provisioned to allow the bandwidth as specified. Actual bandwidth obtained by Service Providers and/or their End-users is subject to many factors, not within District control and is not guaranteed. Upon Service Provider request, and at the District’s discretion, lower or intermediate bandwidth packages may be provisioned for the Service Provider at the same pricing as the next higher bandwidth package.

SERVICE LEVEL: Service includes Network Operations Center (NOC) support and local network administration support. If field dispatch is requested outside normal defined business hours, a dispatch fee will be assessed. All services provided on a 24/7 basis.

METRO ETHERNET FORUM ATTRIBUTES: Purchase of this service requires the Service Provider to meet the following standards:

- **Protocols** – The District will not impede the passing of any protocol frames on the Ethernet Virtual Connection (EVC) for the specific type of service (EPL, EVPL, etc....) whilst adhering to the standards set forth in MEF 6 which specifically addresses L2CP protocols. Any impediment or modification of protocol frames not specified by the MEF standards will constitute a service

WHOLESALE TELECOMMUNICATION SERVICES RATES

outage. This shall include, but not be limited to, topology discovery protocols, routing protocols, multicast protocols, streaming protocols, and voice protocols.

- **Maximum Transmission Unit (MTU)** – The District shall allow the customer to be able to transmit up to a 9000-byte frames on Carrier Class service (not inclusive of Link Aggregation Group – LAG – links, unless one of the subtended circuits on the LAG is of 1G or higher bandwidth). The Business Class VLAN service limits MTU sizes of ≤ 2000 Byte frames.
- **“Out of Service” Definition** - The definition of “out of service” is the inability to reliably pass data at the purchased rate on any Service Provider managed transport path due to excessive latency, errors, loss or violations.
- **Service Interface & Termination Requirements** - Unless otherwise specified by the Service Provider, the interfaces provided to the Service Provider locations must be administratively configured for use as a fixed full duplex 100 Mbps, 1,000 Mbps or 10,000 Mbps interface per the resulting work order or site agreement. Auto negotiate will be used when available. The District is responsible for all access and fiber/cabling to the point of service handoff at the customer premise equipment (switch, ONT, router).
- **Link Aggregation** - If the Service Provider orders an aggregated Ethernet service from the District, the District must support Link Aggregation Control Protocol (LACP) via the IEEE 802.3ad standard while keeping in compliance with MEF standards set forth in MEF 10. If and/or where possible, the Purchaser would prefer to have the LACP configuration to be a Multi-Chassis LACP Configuration, providing chassis redundancy in addition to link redundancy. While aggregation of Ethernet services is not a mandatory requirement, the use of LACP in instances where this service is provided is mandatory.
- **Ethernet Standards** – The District’s Ethernet interface provided at the Service Provider’s point-of-presence must adhere to IEEE 802.3 standards for Ethernet, depending on the service purchased at the location by the Service Provider.
- **VLAN** – The District’s Ethernet services must provide support for Virtual Local Area Network (VLAN) via the IEEE 802.1Q standard.
- **BPDU**s - Except for specific L2CP protocols as specified by the Metro Ethernet Forum (MEF) Ethernet Services Definitions – MEF 6, the District shall not manipulate any Bridge Protocol Data Units (BPDU) which are sent along the circuit by the Service Provider without the provider’s expressed consent.

WHOLESALE TELECOMMUNICATION SERVICES RATES

- **Spanning Tree Protocols** - Except for specific L2CP protocols as specified by the Metro Ethernet Forum (MEF) Ethernet Services Definitions – MEF 6, the District shall not impede the operation of any spanning tree protocols, including, but not limited to; Spanning Tree Protocol (STP), Per-VLAN Spanning Tree (PVST), Per-VLAN Spanning Tree Plus (PVST+), Rapid Spanning Tree Protocol (RSTP), Rapid Per-VLAN Spanning Tree Protocol (R-PVST), Multiple Spanning Tree Protocol (MSTP), VLAN Spanning Tree Protocol (VSTP), without the Service Provider's expressed consent.
- **VLAN Tags** - In accordance with established standards in MEF 6, the District shall not rewrite any VLAN tags affixed to packets by the Service Provider without expressed consent. The District shall also ensure that they do not impede the ability of the Service Provider to utilize 802.1ad tagging, also known as Q-in-Q.
- **Marking of Traffic** – The District must not mark or remark any traffic without approval from the Service Provider. The Service Provider will expect that all traffic leaving a site will arrive after traversing the District's network with the same markings it left with (QoS, Multicast, etc.).

NON-RECURRING CHARGES (NRC): Non-recurring charges (NRC)'s may apply to each of the Services. Fees are charged per order, regardless of number of services ordered. Additional charges for special equipment may apply. Fees and any other associated charges will be billed at time-of-service billing. The VLAN NRC will be reduced to 20% of the standard NRC for changes to an existing VLAN that only require provisioning. See Wholesale Telecommunications Services Fees & Charges Schedule.

WHOLESALE TELECOMMUNICATION SERVICES RATES

Virtual Local Area Network (VLAN)

Metro Ethernet Forum attributes applied. Multiple VLAN's can occur on a single port. Pricing for Point-to-Point and Point-to-Multipoint services are offered as best effort bandwidth for either Business Class or Carrier Class Rate products. All services allow up to 100 MAC Addresses per port, with a maximum of up to 4000 per VLAN, Network capacity of MAC addresses and speed may be a limitation of Network Termination Equipment (NTE). The District reserves the right to limit network parameters and performance based on NTE and other factors that may not be fully expressed until a detailed network design is completed. See Specifications table below.

Virtual Local Area Network (VLAN) Business Class	Unit of Measure	Monthly Rate
<i>Port Charge</i>		
100 Mbps VLAN on 100 Mb Port	Port	\$99.00
1 Gbps per VLAN/Port	Port	\$299.00
10 Gbps per VLAN/Port	Port	\$499.00

Virtual Local Area Network (VLAN) Carrier Class	Unit of Measure	Monthly Rate
<i>Port Charge</i>		
1 Gbps per VLAN/Port	Port	\$499.00
10 Gbps per VLAN/Port	Port	\$699.00

WHOLESALE TELECOMMUNICATION SERVICES RATES

Specifications Table: E-LAN (VLAN)

EVC Service Attribute	Values
EVC Type	Multipoint-to-Multipoint or Point-to-Point
EVC ID	String
UNI List	≥ 2 UNIs {<U1, Role=Root>, <U2, Role=Root>}
Max Number of UNIs	Must be ≥ 2
Unicast Service Frame	Conditional – Dynamic learning
Broadcast Service Frame	Unconditional
CE-VLAN ID Preservation	Enabled
CE-VLAN CoS Preservation	Enabled
MTU	Business Class < 1600; Carrier Class ≥ 1600
EVC Performance	CoS Name = SAL driven
Source MAC Address Limit	Disabled - Unlimited

WHOLESALE TELECOMMUNICATION SERVICES RATES
PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON
RATE SCHEDULE 300
WHOLESALE TELECOMMUNICATION SERVICES – FIBER PATHWAY SERVICES

AVAILABLE: To Service Providers who have entered into an approved Telecommunications Facilities License Agreement with the District and after determination of Availability. This Rate Schedule 300 shall only be applicable to existing District fiber facilities. This Rate Schedule 300 shall not be constructed to create any obligation on the part of the District to construct any new fiber facilities. All services are subject to Availability.

EFFECTIVE: The rates herein are effective **April 1, 2022**.

PRODUCT SUMMARY: The District offers fiber pathway services. Services offered as Dark Fiber, Critical Dark Fiber or Coarse Wave Division Multiplexing (CWDM) products.

BILLING RATES: Term of License Agreement shall not exceed 36 months and may be renewed one time for up to the length of the initial term. Rates for the renewal period will be from the District's Rate Schedule 300 in effect 60 days prior to the beginning of the renewal period. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to the Service Provider by the District and the Service Provider shall be responsible for payment.

PROVISIONING: Services are offered on a commercially reasonable basis and are provisioned to allow the bandwidth as specified. Actual bandwidth obtained by Service Providers and/or their End-users is subject to many factors, not within District control and is not guaranteed. Upon Service Provider request, and at the District's discretion, lower or intermediate bandwidth packages may be provisioned for the Service Provider at the same pricing as the next higher bandwidth package.

SERVICE LEVEL: Service includes Network Operations Center (NOC) support and local network administration support. If field dispatch is requested outside normal defined business hours, a dispatch fee will be assessed. All services provided on a 24/7 basis.

NON-RECURRING CHARGES (NRC): Non-recurring charges (NRC)'s may apply to each of the Services. Fees are charged per order, regardless of number of services ordered. Additional charges for special equipment may apply. Fees and any other associated charges will be billed at time-of-service billing. See Wholesale Telecommunications Services Fees & Charges Schedule.

WHOLESALE TELECOMMUNICATION SERVICES RATES

Dark Fiber Pathway Services	Unit of Measure	Monthly Rate
Dark Fiber Component Maximum Order - 4 stands. Minimum mileage fixed charge for first 14 miles.		
Dark Fiber Pathway		
Single Pair, Non-Redundant Minimum Monthly Charge	Service	\$1,198.43
Single Pair, Non-Redundant, Length Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$42.80
Four Fiber Strands, Redundant Full Duplex Minimum Monthly Charge	Service	\$2,185.57
Four Fiber Strands, Redundant Full Duplex, Length Redundant fibers. Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$39.03
Single Fiber Minimum Monthly Charge	Service	\$669.75
Single Fiber, Length Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$47.84
Critical Dark Fiber Pathway		
Single Pair, Non-Redundant Minimum Monthly Charge	Service	\$2,397.04
Single Pair, Non-Redundant, Length Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$85.61
Four Fiber Strands, Redundant Full Duplex Minimum Monthly Charge	Service	\$4,371.07
Four Fiber Strands, Redundant Full Duplex, Length Redundant fibers. Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$78.06

WHOLESALE TELECOMMUNICATION SERVICES RATES

Single Fiber Minimum Monthly Charge	Service	\$1,321.90
Single Fiber, Length Additional Per Mile, Per Month Charge, Per Fiber Strand	Mile	\$94.42

Coarse Wave Division Multiplex (CWDM)	Unit of Measure	Monthly Rate
CWDM wavelengths defined by ITU-T G.694.2. Point to Point application only. Minimum mileage fixed charge for first 14 miles.		
Single Fiber		
Lambda 1 Minimum Monthly Charge	Lambda	\$602.78
Additional Per Mile, Per Pathway, Per Month Charge, Per Lambda	Mile	\$43.06
Lambda 2-4 Minimum Monthly Charge, Each Lambda	Lambda	\$502.31
Additional Per Mile, Per Pathway, Per Month Charge, Per Lambda	Mile	\$35.88
Dual Fiber		
Lambda 1 Minimum Monthly Charge	Lambda	\$1,078.59
Additional Per Mile, Per Pathway, Per Month Charge, Per Lambda	Mile	\$38.52
Lambda 2-8 Minimum Monthly Charge, Each Lambda	Lambda	\$898.82
Additional Per Mile, Per Pathway, Per Month Charge, Per Lambda	Mile	\$32.10

WHOLESALE TELECOMMUNICATION SERVICES RATES

PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON RATE SCHEDULE 400

WHOLESALE TELECOMMUNICATION SERVICES – TIME DIVISION MULTIPLEX (TDM) SERVICES

AVAILABLE: To Service Providers and District Business Units desiring to use the District's Wholesale Broadband System. District reserves the right at its sole option to discontinue services listed in this rate schedule at any time. All services are subject to Availability.

EFFECTIVE: The rates herein are effective **April 1, 2022**.

PRODUCT SUMMARY: The District offers Time Division Multiplex (TDM) services. Services offered as DS-1 (PRI), DS3 (T3), STS-1 and STS-3 business transport products.

BILLING RATES: Use of the Broadband System shall be billed in accordance with the rates listed below. Service Providers will be charged on a monthly basis according to the rates set forth herein. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to the Service Provider by the District and the Service Provider shall be responsible for payment. Rates are per Service Provider's End-users and may not be resold to more than one End-user.

PROVISIONING: Services are offered on a commercially reasonable basis and are provisioned to allow the bandwidth as specified. Actual bandwidth obtained by Service Providers and/or their End-users is subject to many factors, not within District control and is not guaranteed. Upon Service Provider request, and at the District's discretion, lower or intermediate bandwidth packages may be provisioned for the Service Provider at the same pricing as the next higher bandwidth package.

SERVICE LEVEL: Service includes Network Operations Center (NOC) support and local network administration support. If field dispatch is requested outside normal defined business hours, a dispatch fee will be assessed. All services provided on a 24/7 basis.

NON-RECURRING CHARGES (NRC): Non-recurring charges (NRC)'s may apply to each of the Services. Fees are charged per order, regardless of number of services ordered. Additional charges for special equipment may apply. Fees and any other associated charges will be billed at time-of-service billing. See Wholesale Telecommunications Services Fees & Charges Schedule.

WHOLESALE TELECOMMUNICATION SERVICES RATES

Time Division Multiplex (TDM) Services	Unit of Measure	Monthly Rate
STS-1 Synchronous Transport Service @ STS-1 Delivered Rate (51.84 Mbps)	Circuit	\$1,121.61
STS-3 Synchronous Transport Service @ STS-3 Delivered Rate (155.52 Mbps)	Circuit	\$3,275.00
DS1/PRI	Circuit	\$120.00
DS3/T3	Circuit	\$2,225.00

WHOLESALE TELECOMMUNICATION SERVICES RATES

PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON RATE SCHEDULE 500

WHOLESALE TELECOMMUNICATION SERVICES – MISCELLANEOUS SERVICES

AVAILABLE: To Service Providers and District Business Units desiring to use the District's Wholesale Broadband System. District reserves the right at its sole option to discontinue services listed in this rate schedule at any time. All services are subject to Availability.

EFFECTIVE: The rates herein are effective **April 1, 2022**.

PRODUCT SUMMARY: The District offers optional additional services with the purchase of the District's DLL service. Those services include telephony (POT's), Internet Protocol (IP) Multicast and RF video transport. Other miscellaneous services offered include Internet Bandwidth, a Layer 3 transport and upstream Internet connectivity service to the District's upstream Multi-Homed Internet Access Provider (IAP), as well as Colocation floor space for equipment at District facilities.

BILLING RATES: Use of the Broadband System shall be billed in accordance with the rates listed below. Service Providers will be charged on a monthly basis according to the rates set forth herein. Any additional charges that are incurred for special equipment, provisioning, or charges from other carriers will be passed on to the Service Provider by the District and the Service Provider shall be responsible for payment. Rates are per Service Provider's End-users and may not be resold to more than one End-user.

BILLING RATES – AFTER HOURS RESPONSE: Service Providers will incur charge at the time of request on a per incident basis. Fees and any other charges will be billed at time-of-service billing.

BILLING RATES – CONSTRUCTION CHARGES & ENGINEERING/DESIGN FEES: Customer will incur charge at the time of request on a per order basis. Fees and any other charges will be collected prior to commencement of work.

PROVISIONING: Services are offered on a commercially reasonable basis and are provisioned to allow the bandwidth as specified. Actual bandwidth obtained by Service Providers and/or their End-users is subject to many factors, not within District control and is not guaranteed. Upon Service Provider request, and at the District's discretion, lower or intermediate bandwidth packages may be provisioned for the Service Provider at the same pricing as the next higher bandwidth package.

WHOLESALE TELECOMMUNICATION SERVICES RATES

SERVICE LEVEL: Service includes Network Operations Center (NOC) support and local network administration support. If field dispatch is requested outside normal defined business hours, a dispatch fee will be assessed. All services provided on a 24/7 basis.

NON-RECURRING CHARGES (NRC): Non-recurring charges (NRC)'s may apply to each of the Services. Fees are charged per order, regardless of number of services ordered. Additional charges for special equipment may apply. Fees and any other associated charges will be billed at time-of-service billing. See Wholesale Telecommunications Services Fees & Charges Schedule.

WHOLESALE TELECOMMUNICATION SERVICES RATES

Miscellaneous Services	Unit of Measure	Monthly Rate
Telephony Services (Available only when an ONT provided data-type service is purchased)		
Traditional Voice Service (POTS not VOIP) Dial-Tone Only	Each	\$5.50
Internet Protocol (IP) Multicast		
IP Multicast, per End-user	Each	\$2.90
Video Transport Services (Available only when an ONT provided data-type service is purchased)		
RF Video Transport Services	Each	\$2.90
Colocation of Equipment in District Facilities (When space and appropriate facilities are Available and required agreement executed)		
Floor Space Real estate floor space rounded up to nearest Sq/Ft	Sq/Ft	\$23.95
Internet Bandwidth		
The District offers Layer 3 transport and upstream Internet connectivity to the District's upstream Multi-Homed Internet Access Provider (IAP). Internet is offered on a 100 Mbps Internet access port. Port speed Committed Information Rate (CIR) and Burstable Rate in megabits per second (Mbps). Internet bandwidth is burstable above the minimum commitment level at the burst price related to the minimum commitment level. Service Provider may choose to fix their maximum bandwidth burst at the commitment level or at a higher level at the time of signup, at whole, not partial Mbps. Internet Bandwidth is billed at the 95th percentile of the greater of inbound or outbound traffic, measured over a full month. If a Service Provider's usage is measured at less than its committed level, it will pay the minimum monthly committed amount. Pricing includes transport to delivery points on the District's network.		
30 Mbps Internet Connection (Burst up to 100Mbps)	Port	\$825.00
50 Mbps Internet Connection (Burst up to 100Mbps)	Port	\$1,550.00
100 Mbps Internet Connection (Non-Burstable)	Port	\$2,870.00
Burst Charge Above CIR per Month per Mb*	Mb	\$38.35

RESOLUTION NO. _____

A RESOLUTION AMENDING THE DISTRICT'S ELECTRIC RATE SCHEDULE 1 RESIDENTIAL SERVICE TO INCLUDE PROVISIONS OF THE DISTRICT'S ADVANCED METERING INFRASTRUCTURE OPT-OUT PROGRAM AS ADOPTED VIA RESOLUTION NO. 20-14414

FACTUAL BACKGROUND AND REASONS FOR ACTION

Public Utility District No. 1 of Chelan County (District) has adopted a plan to establish a new standard metering solution referred to as Advanced Metering Infrastructure (AMI). As part of the anticipated deployment, the District explored options for customers who desire to opt-out of having a new standard communicating meter installed at their residence.

Staff presented options for an AMI opt-out program during the December 2, 2019 and December 16, 2019 Commission meetings and gathered customer feedback and direction from the Board. On January 6, 2020, the Board adopted via Resolution No. 20-14414, a voluntary AMI opt-out program that provides options for customer choice to opt-out of receiving a standard communicating meter. Eligibility requirements include, but are not limited to, customers with single-phase residential service to single-family homes including multiplexes up to four units, owner occupied, or owner authorized, maintaining consistent access to the meter, and satisfactory payment history. Customers whose request to opt-out is approved will be assessed a monthly fee to cover the additional District costs; qualifying low-income senior/disabled customers who elect to opt-out will be assessed a reduced monthly fee equivalent to 50% of the applicable standard monthly fee. Commissioners directed staff to incorporate the provisions of the opt-out program within the District's Electric Rate Schedules as applicable.

Staff recommends amending Electric Rate Schedule 1 Residential Service as provided in Attachment "A". Staff recommends that these changes be effective immediately.

The General Manager has reviewed staff's recommendation and concurs in the same.

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, WASHINGTON, as follows:

Section 1. Effective March 7, 2022, the District's Electric Rate Schedule 1 Residential Service is amended to include the text provided in Exhibit "A".

Section 2. All prior resolutions inconsistent with this resolution are hereby rescinded and superseded.

DATED this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal

Exhibit A

Residential Service

Rate Schedule 1

AVAILABILITY:

This schedule is available throughout Chelan County served by the District with the exception of the Stehekin area, and is applicable to service for private residence, apartment, summer home, farm and incidental farm power purposes.

CHARACTER OF SERVICE:

1. Service to be furnished under this schedule may be either single phase, three phase or four wire three phase, 60 cycles, alternating current at available phase and voltage.
2. Where a portion of dwelling is used regularly for the conduct of business or where a portion of the electricity supplied is used for other than domestic and incidental farm power, service may be supplied on this Schedule, provided the energy used is in accordance with the regulations defined in Sections 43 and 44 of the District's Utility Service Regulations. If not, energy shall be billed on General Service Schedule 2.
3. Single phase motor installations, no one motor shall exceed 7 ½ HP may be connected and served through the residence meter under this schedule.
4. All water heating installations and equipment over 10KW shall be subject to the approval of the District as to type and capacity of heating units, tanks, controls and insulation. The District may at its option and its expense, install a time switch, carrier current control or other device to limit the hours of service to the water heater. The period or periods each day during which service may be so limited shall not exceed a total of six hours.
5. When more than one residence or apartment is served through one meter, or an adult family home and/or a Bed & Breakfast with four or more rental rooms, service shall be supplied and billed on General Service Schedule 2.
6. When a metered domestic well serves more than one residence, service shall be supplied and billed under General Service Schedule 2.
7. Temporary service for residential construction shall be supplied and billed under this Schedule.
8. Service under this Schedule is subject to the rules and regulations as defined in the District's Utility Service Regulations.

RATES:

Residential Service						
Effective Date	01/01/2012	06/01/2020	6/01/2021	6/01/2022	6/01/2023	6/01/2024
Basic Charge Single Phase	\$7.70	\$9.45	\$11.20	\$12.95	\$14.70	\$16.45
Basic Charge Three Phase	\$13.35	\$15.10	\$16.85	\$18.60	\$20.35	\$22.10
Energy Charge	\$0.0270	\$0.0270	\$0.0270	\$0.0270	\$0.0270	\$0.0270

RATE DISCOUNT:

Residential Rate Discount						
Effective Date	01/01/2012	06/01/2020	6/01/2021	6/01/2022	6/01/2023	6/01/2024
Low-income Senior/Disabled	\$9.25	\$9.55	\$9.80	\$10.10	\$10.40	\$10.70

A rate discount is available to qualifying low-income seniors 62 years and older and low-income disabled as provided for in State of Washington R.C.W. 74.38.070. The rate discount will not exceed the amount of the monthly bill and will be applied to one account only.

To qualify for the rate discount, applicants must provide satisfactory proof of the following.

FOR LOW-INCOME SENIORS:

1. Age 62 years or older prior to or during the month in which the discount is to apply.
2. Total household income including his or her spouse or co-tenant does not exceed the amount specified in R.C.W. 84.36.381 (5)(b).
3. Ownership or occupancy as head of household residing therein at certain property being served electricity within the District's service area.

FOR LOW-INCOME DISABLED:

1. Physical disability prior to application.
2. Special parking privileges as defined in State of Washington R.C.W. 46.16.381(1)(a) through (f) or a blind person as defined in R.C.W. 74.18.020.
3. Household income does not exceed 125% of Federal Poverty Income Guidelines.
4. Ownership or occupancy as head of household residing therein at certain property being served electricity within the District's service area.

ADVANCED METERING INFRASTRUCTURE OPT-OUT:

Customers taking single-phase service at single-family homes or multiplexes of no more than four units may request to opt-out of having a standard communicating meter. Opt-out is not available at Premises with net-metered services. Opt-out requests must be authorized by the owner of the Premise. Requests for analog meters are subject to availability. The District may deny requests or may revoke previously granted requests for reasons the District determines appropriate including, but not limited to, unsafe or impaired meter access, impediments to meter access including, but not limited to, terrain or weather, past incidents of meter tampering, non-compliance with the District's Utility Service Regulations, unsatisfactory payment history including disconnection due to non-payment of Utility Service, or other operating constraints as identified by the District.

Customers who are approved to opt-out of having a standard communicating meter will be assessed a monthly fee of \$25. Qualifying low-income senior/disabled customers who are approved to opt-out of having a standard communicating meter will be assessed a reduced monthly opt-out fee equivalent to 50% of the applicable fee.

TAX ADJUSTMENT:

The amount of tax levied by any city or town in accordance with R.C.W. 54.28.070, of the Laws of the State of Washington, will be added to the above charges for electricity sold within the limits of any such city or town.

SERVICE POLICY:

Service under this Schedule is subject to the rules and regulations as defined in the District's Utility Service Regulations.

EFFECTIVE: March 7, 2022

RESOLUTION NO. _____

A RESOLUTION RATIFYING FIELD WORK ORDER/CHANGE ORDER NOS. 1, 1-PC (PRECONSTRUCTION), 2-PC, 3-PC, 1-GMP1, 2-GMP1, 3-GMP1 AND 4-GMP1, AND AUTHORIZING THE ISSUANCE OF A GUARANTEED MAXIMUM PRICE (GMP) AMENDMENT NO. 2 TO NORTHBANK CIVIL AND MARINE, INC. OF VANCOUVER, WA TO PROVIDE A GUARANTEED MAXIMUM PRICE AND SCHEDULE FOR THE UPGRADE OF UNITS U1 AND U2 UNDER CONTRACT NO. 20-14 FOR THE ROCK ISLAND POWERHOUSE NO. 2 DRAFT TUBE GATE CYLINDER AND HYDRAULIC POWER UNIT UPGRADE

FACTUAL BACKGROUND AND REASONS FOR ACTION

On May 11, 2020, by Resolution No. 20-14451, the Commission of the District authorized the General Manager to invite sealed proposals to provide Design-Build services to the District in support of a planned upgrade to the draft tube gate system on all eight (8) units in Rock Island Dam Powerhouse No. 2. The upgrade includes replacement of the two (2) hydraulic cylinders and hydraulic power unit for each generating unit, replacement of piping due to poor condition, and procurement of some new components to mitigate schedule impacts and risk of unrepairable items. This work will be scheduled with existing unit outages and will begin in 2022 and is planned to be completed in 2025.

On February 16, 2021, by Resolution No. 21-14532, the Commission of the District authorized the General Manager to enter into a Design-Build contract (Contract No. 20-14) with Northbank Civil and Marine Inc. In addition to the general terms and conditions, the Contract authorized \$632,927.00 for preconstruction services.

On April 5, 2021, by Resolution No. 21-14550, the Commission of the District authorized the General Manager to enter into the GMP Amendment No. 1 to procure and manufacture two sets of hydraulic cylinders and two hydraulic power units (HPU) for a not-exceed-amount of \$1,234,365.62. The new total not-to-exceed amount was therefore \$1,867,292.62.

Executed Field Work Orders to be Ratified

Field Work Order/Change Order No. 1 updated the Technical Specifications which had been finalized and approved by the parties during the Preconstruction Services phase. There was no change in the Contract Sum. It was executed on November 29, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 1-PC (Preconstruction) extended the Preconstruction Services completion date to August 31, 2021. There was no change in the Contract Sum. It was executed on July 21, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 2-PC extended the Preconstruction Services completion date to December 31, 2021. There was no change in the Contract Sum. It was executed on August 13, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 3-PC extended the Preconstruction Services completion date to February 28, 2022. There was no change in the Contract Sum. It was executed on December 8, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 1-GMP1 extended the Substantial Completion date to December 31, 2021. There was no change in the Contract Sum. It was executed on August 13, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 2-GMP1 updated the Technical Specifications of hydraulic cylinders as a result of the Preconstruction Services. There was no change in the Contract Sum. It was executed on October 13, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 3-GMP1 excluded the engineering cost from the purchase and manufacture cost of hydraulic cylinders and HPUs, as these costs were already covered in the cost for the Preconstruction Services. This change reduced the Contract Sum for GMP Amendment No. 1 (GMPA1) by \$115,758.87, for a revised not to exceed contract price of \$1,118,606.75 (GMPA1). It was executed on November 19, 2021 and is on file in the offices of the District.

Field Work Order/Change Order No. 4-GMP1 extended the Substantial Completion date to March 31, 2022. There was no change in the Contract Sum. It was executed on December 2, 2021 and is on file in the offices of the District.

Proposed GMP Amendment No. 2 for Approval

The work has progressed to a point where Northbank Civil and Marine Inc. can provide a Guaranteed Maximum Price and schedule for the upgrade of the first two units. Therefore, the District and Northbank Civil and Marine Inc. have agreed to move forward with a GMP Amendment No. 2, which includes the replacement of two (2) hydraulic cylinders, HPU, system piping, and replacing hydraulic oil with an environmentally acceptable lubricant for Units U1 and U2.

District staff recommend execution of the GMP Amendment No. 2 with Northbank Civil and Marine Inc. for an amount of \$1,675,089.14 for Rock Island Powerhouse No. 2 Units U1 and U2 Draft Tube Gate Cylinder and HPU Upgrade. The

revised overall Contract Sum after execution of the GMP Amendment No. 2 will be \$3,426,622.89, excluding sales tax. The General Manager of the District concurs with staff's recommendation.

ACTION

IT IS RESOLVED BY THE COMMISSION OF PUBLIC UTILITY DISTRICT NO. 1 OF CHELAN COUNTY, as follows:

Section 1. The Commission finds that Field Work Order/Change Order Nos. 1, 1-PC, 2-PC, 3-PC, 1-GMP1, 2-GMP1, 3-GMP1, and 4-GMP1 were properly executed pursuant to the authority delegated by Resolution No. 17-14215 and said Field Work Order/Change Orders are hereby formally acknowledged and ratified.

Section 2. The General Manager of the District is hereby authorized to enter into GMP Amendment No. 2 with Northbank Civil and Marine Inc. for Contract No. 20-14 Rock Island Powerhouse No. 2 Units U1 and U2 Draft Tube Gate Cylinder and HPU Upgrade. The Contract Sum for GMP Amendment No. 2 shall not exceed \$1,675,089.14, for a total revised overall Contract Sum of \$3,426,622.89, excluding sales tax. A copy of the contract will be on file in the offices of the District.

Section 3. The General Manager of the District is hereby further authorized, in accordance with the delegated authorities established by Resolution No. 17-14215, to adjust the not-to-exceed Contract Sum for GMP Amendment No. 2 via Field Work Order/Change Order as deemed prudent for the efficient completion of District priorities contemplated under this Contract. Said authorization shall be limited to a cumulative value not exceeding \$150,000 for any Field Work Order/Change Orders not previously ratified by the Board. Any such Field Work Order/Change Order shall be in compliance with all policies of the District and shall be filed in the offices thereof.

DATED this 7th day of March 2022.

President

ATTEST:

Vice President

Secretary

Commissioner

Commissioner

Seal