



Benton PUD Electrical and Fiber-Optic Services
For Prospective Industrial Loads
March 2023

Electrical Service

- As a public power customer of the Bonneville Power Administration (BPA), Benton PUD (BPUD) provisions regional power grid access through substation interconnections with BPA's transmission lines. BPUD has a long standing and proven working relationship with the BPA to ensure reliable and cost-effective electrical service is available for our customers.
- Adding electricity intensive customer loads greater than 10 megawatts would require BPUD to submit an interconnection request to BPA for a feasibility assessment. This initial assessment would require up to 90 days for BPA to complete once they receive BPUD's request. The current maximum electricity demand on BPA's transmission lines may have some available capacity, but large load additions can have impacts on a more regional basis and may require additional BPA studies to identify electric system deficiencies and necessary upgrades that may be required for continued reliable system operation. Any upgrades to the BPA system identified by the studies include good faith budgetary estimates.
- The costs charged to customers and developers for new electric service is determined in accordance with BPUD's most recent version of "Customer Service and Line Extension and Facilities Construction Policies": [Benton PUD's Customer Service Rates & Policies](#)
- Requests for electrical capacity greater than 2,500 kVA (nominally 2.5 megawatts) requiring BPUD to incur Core Electric System costs for new or upgraded facilities will require the developer (customer) to cover a share of the cost of the required facilities, up to 100%. In addition to any improvements required by BPA for requests greater than 10 megawatts.

Power Supply

- Benton PUD customers benefit from an over 90%¹ carbon free power supply portfolio. Our portfolio primarily consists of hydro (≈80%) and nuclear (≈10%) resources through our Bonneville Power Administration (BPA) contract, but also includes some wind and thermal resources. The low-cost, dependable hydro resources allow us to keep customer rates low and our benchmarking shows our rates are below the median of northwest utilities.
- Washington State passed the Clean Energy Transformation Act (CETA) in 2019, which in the near-term, effectively limits new generation resources to solar, wind, and battery storage technologies. Since these renewable technologies produce intermittent and variable amounts of electricity, they must be backed up by dependable capacity which is currently in limited supply in the northwest. In the long-term (2030 and beyond), advanced nuclear reactor technology could play a large role in providing firm, carbon free electricity to meet Northwest customers' loads.

¹ Based on a four-year average fuel mix of approximately 93%.

- Benton PUD’s BPA contract limits our access to low-cost hydro/nuclear power to serve new loads and is not available to customers with large loads of 10 average megawatts (aMW) or more on an annual basis. To address these limitations, BPUD has a separate rate schedule (New Large Load - Schedule 80) to allow rates to be negotiated on a case-by-case basis; see **Figure 1**.

Effective October 1, 2019

RATE SCHEDULE 80

AVAILABLE: In all territory served by the District.

APPLICABLE: To new large industrial loads greater than 10,000 kW demand, served under a power sales contract with the District.

CHARACTER OF SERVICE: 60 hertz alternating current of such phase and voltage as the District may have available.

RATE: New large load customers will be served at rates determined under a contract negotiated with the District.

Figure 1: Benton PUD Rate Schedule 80 – www.bentonpud.org/Services/Energy/View-Rates

- There are two options for power supply for loads over 10 aMW:
 - **BPA Rates:** These loads may be served under BPA’s New Resource Firm Power Rate. The rate schedule is published in two-year increments and is based on marginal resource costs to BPA. Rates effective 10/1/23 – 9/30/25 are published at [2024 Power Rate Schedules and GRSPs \(bpa.gov\)](http://www.bpa.gov) (starting on p. 17). Currently, these rates range from \$64/MWh to \$118/MWh and demand charges ranging from \$4/kW to \$15.50/kW depending on the month. In addition to these rates, there will be charges for BPA transmission and ancillary services as well as Benton PUD costs for operations and maintenance, and other costs such as meeting state renewable standards.
 - **Customer provides power supply:** While there are challenges with procuring new power supply resources in the northwest, Benton PUD has many years of experience and a strong market presence which we can bring to bear in helping new large load customers acquire sufficient generation resources to meet their needs and provide electrical service through a “wheeling” rate.
- The following options could be utilized to assist prospective customers in acquiring the necessary power supply resources if they choose that option: 1) utilize market experts from Benton PUD’s resource management agreement to secure short term market purchases; 2) issue a request for proposal (RFP) to utilities and independent power producers with surplus existing resources to contract for a percentage of existing generation (short to mid-term); or 3) issue an RFP for long term shares of the thousands of megawatts of new renewable energy resources proposed for development in the northwest. Depending on the resource(s), additional seasonal energy (capacity) contracts or hourly firming contracts may likely be required, which could be included in the RFP process.
- Benton PUD updates its cost of service analysis (COSA) annually, which includes an analysis for the cost to “wheel” power for customers providing firm power supply as well as for utilizing

BPA's New Resource rate schedule. For the 2022 test year COSA, the following were estimated rates (in addition to the cost of power) for wheeling power or utilizing BPA's rates (actual rates will depend on each unique circumstance):

- Monthly customer charge: ≈\$10,000 per month
 - Monthly demand charge: ≈\$8.00 per kilowatt (kW)
 - Monthly energy charge: ≈\$0.005 per kilowatt hour (kWh)
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- Depending on the power needs of the prospective customer, the estimated time required to provision new generation resources is highly variable and a function of BPUD's ability to secure power from existing plants or whether new, yet to be constructed, renewable resources are needed.

Fiber-Optic Service

- Benton PUD has been in the broadband business for over 20 years with an extensive fiber-optic network installed throughout Benton County and the Tri-Cities area; see **Figure 2**. Our network extends throughout Benton County and we are poised to install new fiber as requested.

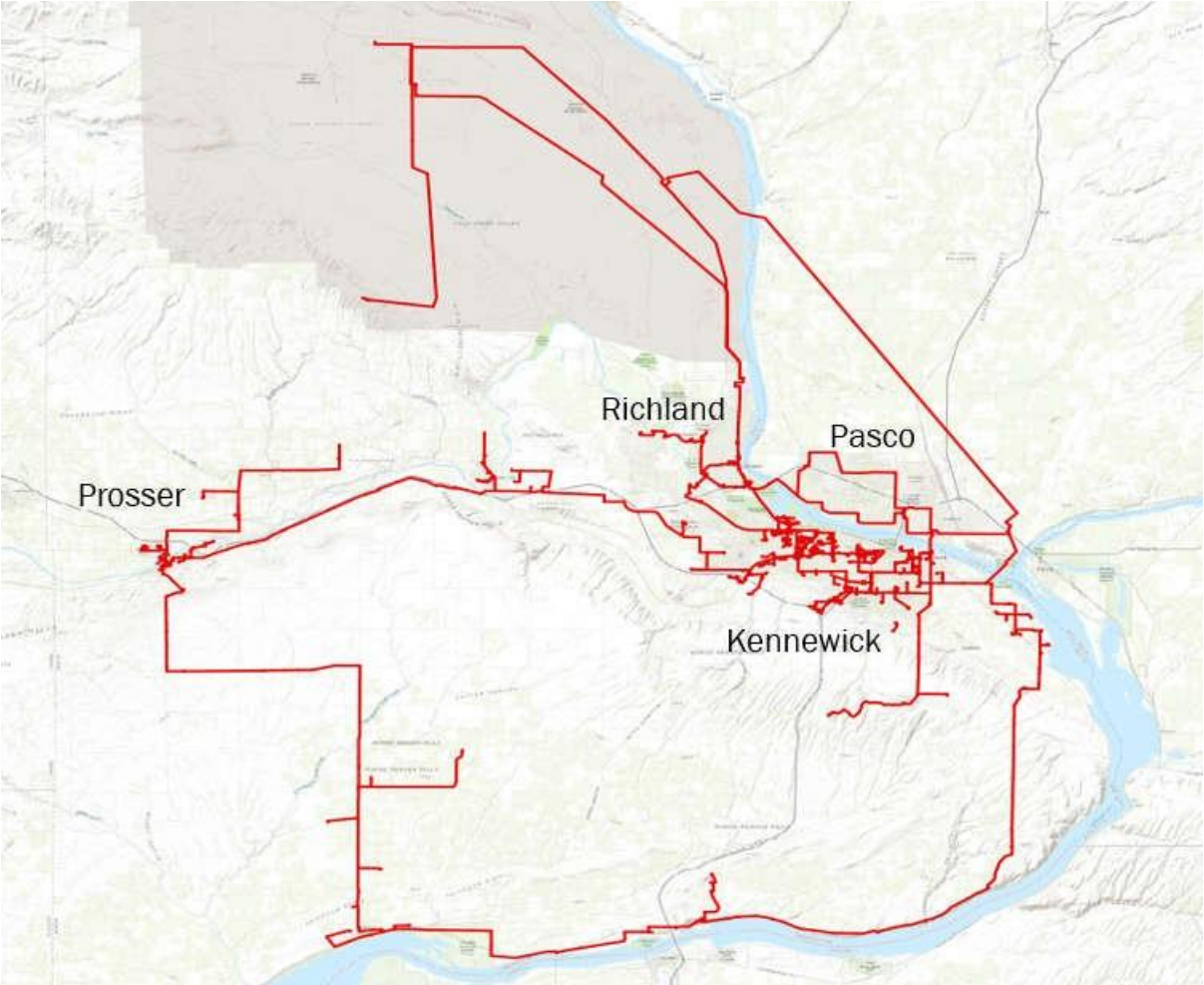


Figure 2: Benton PUD Fiber-Optic Network - Kennewick and Tri-Cities Area

- Benton PUD is a founding member and one of ten owners of Northwest Open Access Network (NoaNet). NoaNet operates a statewide network with over 3,300 miles of fiber-optic cables present in every county in Washington and a major network hub located at Benton PUD's offices in Kennewick; see **Figure 3**. Since 2000, NoaNet and its members have been operating reliable, open-access wholesale broadband communications networks providing highly reliable, high speed broadband services to schools, libraries, hospitals, government agencies and private businesses.

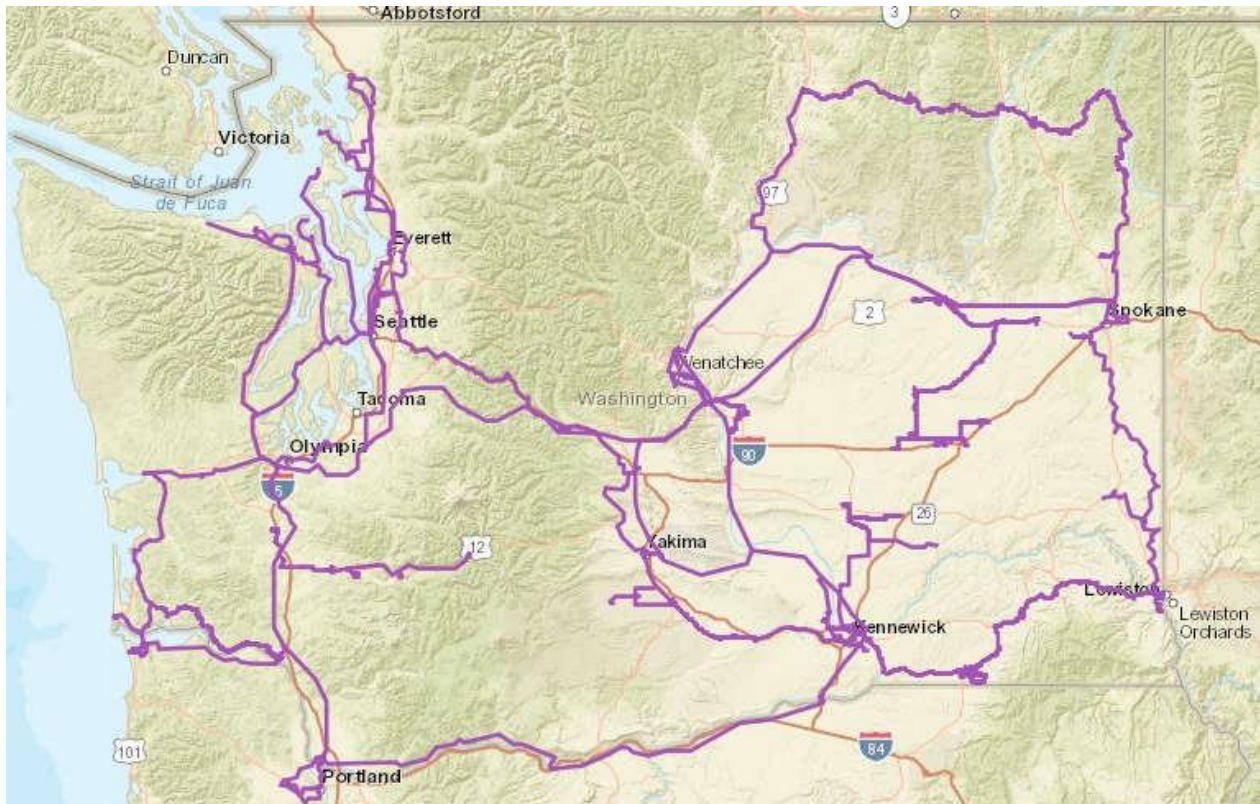


Figure 3: Northwest Open Access (NoaNet) Washington State Fiber-Optic Network

- Benton PUD and NoaNet have partnered over the years with private cellular telephone carriers to expand the PUD's fiber-optic network in Benton County. This partnership has been instrumental in helping provision next generation cellular telephone services to many areas in the Tri-Cities. The partnership between Benton PUD, NoaNet and private cellular telephone carriers in Benton County is a testimony to the reliability, speed and extent of NoaNet and Benton PUD's fiber-optic networks