



Utility Extension Manual

Public Utility District No. 1 of Pend Oreille County

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1 Preamble

1.1 Purpose

The Utility Services Extension Manual outlines the information, requirements and processes followed for the efficient and safe interconnection of District electrical, telecommunication and water services to ensure that all Customers of the District receive non-discriminatory and equitable consideration.

This manual fulfills the requirements of the District's Utility Services Extension Policy approved by the Board of Commissioners.

1.2 Utility Services Extension Introduction

Pend Oreille County residents can request interconnection and service to the electric system, telecommunication system and any of the nine community water systems operated by the District. Additionally, large commercial Customers can request interconnection to the District's Transmission or Generation facilities to support their manufacturing or wholesale operations. We have tried to organize our Utility Extension Process to be easy and flexible for our Customers.

This booklet intends to help the Applicant navigate their specific request for interconnection, modification, upgrade or abandonment of facilities. The information provides contractors, architects, building contractors, engineers, District Customers and Applicants with the basic requirements to request new, or modifications to existing utility services. The booklet addresses most of the information and requirements involving general extension requests, but it does not include all possible standards or specifications required by the District, state, federal or local codes.

Please use the checklist below to assist you in the process:

Applicant works with a Customer Service Representative (CSR):

- Submit a completed Application
- Provide a copy of the property deed
- Provide a site drawing
- Pay the Engineering Fee
- Schedule an onsite visit

After the onsite visit, the District will mail a Quote to the Applicant. If the Applicant would like to proceed with the Utility Service Extension:

- Pay the Quote within 60 days
- Provide any necessary Easements
- Clear Right-of-Way if applicable
- Electric Service: Complete service application and pay deposit if applicable
- Electric Service: Install meter base. A state electric permit must be obtained prior to performing this work
- Electric Service: Have meter base inspected by Labor & Industries and contact the District with the approved permit number
- Fiber Service: Install a GFCI outlet within 10 feet of the meter base

The above steps must be completed within one year of making payment. Once the above steps have been completed, the job is released to the operations department to schedule construction of District facilities.



2- General Utility Extension Provisions and Definitions

2 General Utility Services Extension Provisions

2.1 Definitions

Capitalized terms used in this Manual and in any Application for electric, telecommunications and/or water Service Facilities shall mean:

- **Applicant** –the party submitting an Application to the District for a utility line extension or modification for Utility Services.
- **Application** - District application completed and submitted by the Applicant requesting a connect to, an expansion of, or an increase or change to an existing service with the District’s Utility Systems; or the request for the District to construct a line extension in accordance with this manual.
- **Customer** - A person or entity owning or occupying a location within Pend Oreille County and receiving a utility service from the District.
- **Easement** – A legal document assigning the District the use of a Right-of-Way for the purpose of placing and maintaining utility equipment to serve a Customer.
- **Quote** - The costs of the requested extension or modification, including labor, materials, tools, transportation, services, administration, engineering, inspections, permitting, Easements and other related costs, which the Applicant is required to pay.
- **Right-of-Way** - The corridor necessary for District to use for the purpose of placing and maintaining utility Service Facilities. Rights-of-Ways are to be maintained kept clear of hazards, and to maintain access to equipment and facilities.
- **Service Area** - The land area to which the District is authorized to furnish service.
- **Service Facilities** - All electrical, telecommunications and/or water facilities owned and operated by the District, including, but not limited to lines, conduits, ducts, poles, wires, cables, fiber optic cable, premises gateway devices, crossarms, receivers, transmitters, instruments, machines, appliances, instrumentalities and all devices, real estate, Easements, apparatus, property, and routes used, operated, owned, or controlled by the District to facilitate the provision of electric, telecommunication and water services.
- **Telecommunications** – District wholesale fiber and wireless facilities supported by the Customer Network Systems (CNS).
- **Utility Extension** – The extension, relocation or upgrade of Service Facilities to the Applicant’s desired service location to appropriately provide electrical, telecommunication and/or water service.

2.2 Application

Each Applicant must submit an Application for a Utility Extension, provide a deed to the property, and remit a non-refundable engineering fee. The District will not process incomplete Applications. The District may refuse to accept any Application, or give final acceptance of a Utility Extension, for reasons including, but not limited to, those set out in this manual.

Each Application is required to include a site plan, illustrating the properties to be served and the approximate location of the proposed work. The District will review the proposal and the layout of the location of all service infrastructures needed to serve the area.

Applicants, in some instances, may be required to supply data relating to the expected use of the Utility Extension. This may include, but is not limited to expected usage, the mean and peak demand, expected usage schedules, or other specifics related to the requested utility.

2.3 Pre-Design & Engineering Fees

An engineering fee is due upon submittal of the Application and charged in accordance with the District's approved Utility Extension Fees Policy.

The Applicant, or authorized representative, is required to make an appointment by calling (509)-447-3137 to schedule a date and time to meet with the appropriate District staff to determine the optimum Utility Extension location.

Applicants who seek to materially modify a submitted Application, project design or requested service after the Quote and design is complete will be required to submit a new or revised Application and pay additional fees to include, but not limited to another engineering fee.

2.4 Ownership and Right-of-Way

The District generally constructs, owns, operates and maintains its Service Facilities along public streets, roads, highways and public lands which it has the legal right to occupy by Easement. When a Utility Extension involves a public property, the District will secure the permits and Easements as needed. All costs (as determined by the District) associated with the District's obtaining Easements or permits will be paid by the Applicant.

When the Utility Extension is to be constructed on private property the Applicant is responsible for obtaining all necessary Easements along the proposed Right-of-Way. The District is under no obligation to commence any legal action to secure Easements. The District will provide an Easement document that the Applicant can use to secure an Easement for the required Right-of-Way. Each individual whose name appears on the Deed (e.g. husband and wife, etc.) will be required to sign and submit the notarized Easement form. All Easements and permits shall name the District as grantee or permittee and shall include all electric, telecommunication, and water Service Facilities. All completed and signed Easements are required in original copy.

The District will be the sole owner of all the electric, telecommunications and water Service Facilities installed along the established Right-of-Way. At all times the Utility Extension(s) shall remain under the sole control and jurisdiction of the District.

In the event the Applicant is unable to secure required Easements, and/or the District is unable to obtain required permits, the line extension or upgrade design work will cease and the Quote already paid by the Applicant, less District time or materials already put against the project, will be returned to the Applicant. Construction will not begin until all permitting and Easements are secured.

2.5 Environmental and Cultural Review

The Customer is responsible for all costs related to the District conducting environmental and cultural reviews¹ of any proposed Utility Extension construction. The District's areas of service have a number of environmental and archeological sensitive sites requiring each Utility Extension to be reviewed for impact. If the results of the review show impacts that fail to satisfy federal, state, local or District requirements, the District will work with the Applicant to revise aspects of a plan so it meets environmental or cultural criteria.

¹ RCW 27.53.060 Disturbing archaeological resource or site—Permit required—Conditions—Exceptions—Penalty.

2.6 Project Quote

The District will prepare and submit a Quote, a Line Extension Agreement, and Easement form (if applicable), service applications, and other documentation to the Applicant using first class mail and/or electronic mail. All forms and required documentation must be completed, notarized where applicable, and returned with payment for the full amount.

Payment of the Quote is due within 60 days of the date on the Quote, unless otherwise specified. If after payment, the Customer is not ready to complete construction within one year, the Customer's payment for construction will be refunded, less all labor, transportation, material costs, or other costs incurred by the District.

2.7 Construction and Inspection

Construction will begin only when all agreements are completed, all required Easements obtained, all Fees and Charges and Quotes are paid, the Washington State Department of Labor and Industries (L&I) inspection is received (if applicable), and Right-of-Ways are cleared and ready for construction.

2.8 Trenching

Trenching by the customer must be authorized by the District in writing. If the customer is responsible for trenching, after receiving required advance notice from the Applicant or its contractor, the District may provide an on-site inspector during trenching and before the trenching is backfilled. The inspection will assess if the trenches are straight, dug to the appropriate depth and constructed as designed.

If the District determines an area is unable to be trenched, and the Applicant wants to continue with underground service, the Applicant will be solely responsible for trenching, backfilling, compacting and maintenance.

Between October 15th of each year, and the lifting of road restrictions following the spring thaw, the District will not provide trenching, and projects may be delayed. Applicants seeking an underground service during this time frame may be given the option to provide their own trenching and any other digging necessary, or elect to wait until the District can resume trenching. If the Applicant elects to do their own trenching, and receives authorization in writing from the District, then District personnel will proceed with the installation of necessary Service Facilities provided that the trenching is satisfactory. The Applicant will be responsible for backfilling, compacting and maintenance of the trenching.

2.9 Right-of-Way Clearing

Clearing refers to the removal of trees and objects to provide the necessary corridor for Service Facilities. Line extension fees and Quotes do not include these costs. Clearing is to be performed by the Applicant to District standards.

Overhead lines necessitate a cleared corridor of 30 feet. Underground conductors require a cleared corridor of 15 feet with stumps removed in a straight direction. The Applicant will be responsible for the completion of the Right-of-Way clearing prior to the District commencing construction.

2.10 Latecomer Fee

The District will not rebate Utility Extension costs. Prospective Applicants are encouraged to include all other potential Applicants in sharing the cost of the Utility Extension at the time of application.



3 –Electric Service Extension

3 Standard Electric Service Facilities Extension

3.1 Electric Service Facilities Extension General Provisions

The District will provide, the following standard class of service voltages, although not all of them are, or can be, made available at each service delivery point.

Class	Voltage	Type
Residential	120/240	Single Phase
Residential	120/208	Three Phase
Commercial	120/240	Three Phase
Commercial	120/208	Three Phase
Commercial	277/480	Three Phase
Irrigation	Negotiable	Three Phase
Industrial	Negotiable	Three Phase

Primary distribution interconnections require adequate capacity for the load contemplated. The District has final determination and sole discretion in calculating the most viable electrical line extension and route, which is not necessarily the shortest distance. The electrical line extension and route will be based on operability, maintainability, geography, property boundaries, overall public safety, feasibility, construction category, permanence, equipment requirements, clearing standards, consumer classification, and costs.

3.2 Meter Base

The Applicant will provide and install the meter base for their 200 or 400 AMP single or three phase services. For services larger than 400 AMP, the Engineering Department shall be contacted for details and approvals of a meter base.

An approved underground meter base is required for all underground service installations. Meter bases will be located in compliance with the District's service requirements, in accordance with state and local electrical codes, and as agreed to in the engineering design and Quote. The location and installation of a meter base must allow easy access by District personnel at all times. Locating meter bases in enclosed porches, buildings, etc. is prohibited.

- Required meter base height: 5 to 6 feet above finished grade, deck porch, etc. to center of meter.
- The meter cannot be enclosed in a structure, such as a porch, entryway or shed.
- A clear path to the meter must be maintained, and a 3-foot clearance around the meter to allow District access for reading and maintenance. Shrubbery and landscaping must be kept clear of the meter location.
- All electric meter installations shall conform to the specific District metering requirements that are derived from the Electric Utility Service Equipment Requirements Committee (EUSERC)².

² See EUSERC.org

3.3 Pole Mounted Meter Bases

Applicants may request a pole mounted meter base placement for various reasons. As part of the Quote, the District will place the pole for the meter base, however once the pole is in place, the Applicant/Customer will own the pole. The District will maintain the overhead drop to the meter pole. The District will not be responsible for any maintenance or replacement of the meter pole after initial pole set is completed— this applies to new and existing meter poles installed prior to the date of this policy.

3.4 Pad Mount Transformers

Pad mount transformers (when specified) must be located so that they have clearances sufficient for right-of-way spacing for firefighting, door access and maintenance. These clearance requirements are specified in WAC-296-46B, National Electric Safety Codes (NESC), and the National Electric Codes (NEC), and standard industry practice.

Any exceptions to these requirements must be approved, in writing, by the District. Transformers above 3,000 kVA or 1,000 gallons of FR3 class liquid, must be approved by District Engineering.

Pad Mounted Transformer Clearance Requirements:

< 3,000 kVA (<1,000 Gal FR3 or Equivalent)

All sides 10 feet

The District's assets are prohibited from being painted by any other than those employed or contracted by the District.

3.5 Customer Utilization Equipment

Any Customer equipment which utilizes electric energy for mechanical, heating, lighting, or similar useful purposes should be properly selected and used. Specifically, all appliances, devices, or equipment connected to the Customer's installation, and therefore District facilities, shall be properly constructed, controlled, or protected so that the District's electric and communication service to other Customers and entities will not be adversely affected. The Customer shall be liable for the cost to repair and/or replace damaged service equipment due to Customer's equipment and/or loads exceeding the capacity limitations of Customer's service.

The District does not offer surge protection for the Customer's service, nor is it required. Customers are encouraged to install this type of protection to protect their home or business from transients on the electric system to protect their home electronics from transient caused by normal operation and switching on the electric system. Customers who desire surge protection are encouraged to contact a licensed electrician to install this type of protection.

3.6 Backup Generators

All backup generator installations should have a transfer switch installed in accordance with the requirements of the National Electric Code. Transfer switch installations must be inspected by L&I and we request that customers provide the District with a copy of the Permit for the transfer switch installation.

3.7 Construction Service (In and Out) Extension

Construction Service is a temporary installation specifically intended to provide temporary electrical service to facilitate the construction of a permanent service. The temporary service must be located no farther than 10 feet from the transformer location. The District shall energize a Washington State Department of Labor and Industries (L&I) approved single-phase service rated at 200 amps or less that is specifically for the purpose of construction of a permanent account when all fees for the permanent service have been paid. If the temporary service is energized for more than a year, it will be determined by

the District to be a permanent service and any additional extension will require the Customer to restart the process for a Utility Extension.

3.8 Area Lighting Service Extension

The District will install, own, maintain and operate area lighting on District owned poles at locations agreed on with the Customer. The District will supply the energy for lighting fixtures. Installation costs are subject to the applicable fees in accordance to the District's Utility Services Fees and Charges Policy(ies). The Customer is responsible for all trenching from the underground power sources to light location. District personnel will engineer area light placement to best suit Customer and District's needs. Equipment installation is at the District's sole discretion.

3.9 Industrial Service Extension

Industrial service refers to services with estimated maximum demands of 500 kWa or more requiring service equipment capacity of 500 kVA or greater at a single point of delivery. Industrial service line extensions will be by negotiated contract only. Depending on the project complexity, size and engineering required, the District may specify the Applicant pay the actual cost of construction, which may require a true-up between the Quoted and actual costs before energization.

Industrial service extension requests may require the Applicant to provide additional information for engineering, including, but not limited to:

- Load ramping schedule
- Hours of operation
- Load diversity
- Power factor
- One-line diagram of electric Service Facilities
- Projected peak load by month
- Other load information as requested and deemed necessary by the District

As part of the approval process, the District will conduct distribution studies based on the requested location of the proposed Utility Extension. The studies will evaluate the District's ability to provide the services with existing infrastructure, or if infrastructure upgrades are needed. Where infrastructure improvements are identified, those improvements will be part of the Quote provided to the Applicant.

The final agreements will include establish points of demarcation between the District and the proposed facility to clearly define facility ownership. Metering requirements, required system equipment and protection systems will be specified where needed to protect the District's electric system.



4 – Telecommunications Service Extension

4 Telecommunications Service Extension

4.1 General Purpose and Provisions

The District provides Telecommunications service through the Community Network System (CNS). The District is a wholesale provider of these services, selling broadband services and products only to authorized Retail Service Providers (RSPs). RSPs, in turn, resale services to their retail customers. The District's Utility Services Extension Manual is incorporated into those agreements by reference. While each RSP is responsible for their own policies and procedures for serving their retail customers, District policies and processes shall specify necessary terms and conditions to enable the provisioning of services to the RSP's retail customers.

CNS provides open access wholesale nondiscriminatory service utilizing fiber optic and wireless infrastructure. The District can also provide dark fiber lease, and communication space rental if available.

4.2 Fiber Telecommunications Service

A Line Extension Connection is defined as a request by an Applicant to connect to existing District telecommunications facilities required to be served by a qualifying RSP.

If the District determines there is fiber distribution available, in the public right-of-way and immediately adjacent to the Applicant's property, the Applicant will apply for a fiber Utility Extension with the District. The District will evaluate the application to bring the connection to the home or business. If approved, the District will provide the Applicant with a Quote, and the Applicant will be responsible for all associated costs of the extension.

4.3 Standard Wireless Service

Standard Wireless Service is product available to RSPs for resale to their residential retail and business customers.

New service Applications can only be made by the RSP. If approved, the District will provide the RSP with a wireless installation kit which includes, but is not limited to:

- Provisioned Wireless Customer Premise Equipment (CPE)
- Wireless CPE Mounting Hardware
- Copper Cable Surge Protectors

RSPs are responsible for the full cost of the initial installation of the kit, and the RSP owns the equipment once received. Unless the equipment is covered by the manufacturer's warranty, RSPs will be responsible for purchasing replacement equipment or kits.

4.4 Fiber Interconnection Construction Requirements

For fiber Telecommunication interconnection, Applicants shall follow the general Utility Extension request process. The District, at its sole discretion, will determine the most suitable type of installation of overhead or underground construction.

Customer Premise Equipment, or CPE, refers to communications equipment that resides at the terminus of a line on the Customer's premises, whether it is a home or business, and provides an interface between the Customer's local network and the broadband provider's network. The District requires that this equipment be located on the outside of any Customer premise for standard class service. The District will own and maintain the all Telecommunication facilities located between its backbone infrastructure and the CPE.

The District requires the Applicant to have, or to install, a grounded outdoor outlet with a cover, located within 10 feet of their electric meter. The outlet should be protected by a 15 or 20 amp breaker, and a dedicated circuit is preferred. The breaker must have Ground Fault Circuit Interruption (GFCI) protection within ten feet of the meter base. The outlet should be on its own circuit, but is not required. This power source will be used to power the District's gateway device.

(Example of GFCI outdoor rated outlet with cover)



(Example of CPE installation)





5 – Facility Modification

5 Facility Modification

5.1 Facility Modification Request General Provisions

A Facility Modification Request applies to requests from public agencies and property owners to make modifications and relocations to existing electric, water and telecommunications services, and infrastructure. This may include the under-grounding of electric or Telecommunication services from an existing overhead supply, or can include altering the depth, height, route or physical location of any overhead or underground Service Facilities.

All facilities that are installed or changed are required to be brought into compliant with the current National Electrical Safety Code (NESC) standards, other applicable standards, District design and construction standards. The District has sole discretion, to determine the suitability of the request to modify the service or facility. The District will determine if the relocations or modifications of the facilities, or the conversion from overhead to underground of Service Facilities, is in the District's best interests. The District will not modify or relocate facilities when it is deemed that such work would be a detriment to the safe and reliable operation of the facilities.

This process is subject to the franchising authority of municipalities for public rights-of-way in which the District operates. Individual franchises and/or other agreements will be reviewed in conjunction with the process.

5.2 Professional Services

The Applicant will be required to retain and pay for professional services where the District determines the project design requires additional or specialized services such as advanced civil engineering, electrical engineering, surveying, geotechnical, environmental, cultural or other professional services.

5.3 Upgrades, Modifications and Relocations

The District, for a fee as provided in the Quote, will alter secondary services to accommodate Customer service upgrade requirements, modifications or relocations. Upgrades, modifications and relocations shall follow the District's Electric Service, Water Service or Telecommunications Service Extension process except as noted below:

- The Quote for the requested service modifications and relocations includes all work to remove, or abandon old service equipment.
- The District will not be responsible for disturbance or damage to property, landscape or hardscape along the right-of-way for the construction work. The Applicant will be responsible to restore or repair the disturbed area after construction. The District will endeavor to minimize the disturbance to the construction area. The District will not have any responsibility for settling, maintenance, etcetera of disturbed ground work.
- The District may require the Applicant to provide trenching (refer to trenching section).

5.4 Underground Conversion of Electric and Telecommunications Service

Upon receipt of a request to consider undergrounding Electric and/or Telecommunications Service Facilities, District Staff will analyze if underground service is feasible. If the District determines undergrounding to be feasible, and in the District's best interest, the District will provide a Quote for placing existing overhead Electric and/or Telecommunications Service Facilities underground.



6 – Subdivisions, Developments, Industrial Parks, and Exempt Segregations

6 Subdivisions, Developments, Industrial Parks, and Exempt Segregations

6.1 General

Developers of either small and large lots or parcels platted as subdivisions, developments, or industrial parks, and/or exempt segregations⁴ (projects), who desire to provide the underground primary cable system with associated substructures, or an overhead primary conductor installation are required to work directly with an assigned engineer for planning and construction.

6.2 Electric Service Backbone

The design will require a backbone system designed to provide every lot or parcel the option to connect to the District's primary electrical system. The backbone system may be overhead or underground, and can be either single-phase or three-phase, as solely determined by the District for cable or conductor economical loading and phase balancing purposes. Consideration must be made for the nature and size of the initial phase(s) of the project, as well as the ultimate built-out load for all phases of the project. Where other Utilities Services are available or requested, the District will coordinate internally with the Community Network System and/or the water system.

6.3 Design and Construction

A looped feed single-phase or three-phase primary distribution system will be used when practicable. This will provide increased electric service reliability to the Customers over the life of the project area. The District will determine the number, size, and layout of primary phase cables or conductors, and associated substructures and pole configuration. The District will determine the trench configuration or cable route for underground systems, and necessary conduit and cable requirements for the primary and secondary, and service conductors. The developer is responsible for any required distribution conduits and associated trench space needed to serve both the initial and ultimate built-out phases of the project. The District will install its electrical facilities after final site and road sub-grade has been obtained, but before any road improvements have been started. This will facilitate the efficient and cost-effective design and installation of District underground conduits, substructures, and other appropriate cable and equipment facilities.

6.4 Coordination with Telecommunications Facilities

The District will coordinate projects that include telecommunications and electric service for efficiency in construction type, location, and reliability. Developers who desire to provide the lots or parcels with access to District telecommunications infrastructure must construct facilities including but not limited to cabinets, conduit, vaults, electronics, and handholes.

The District will install all Telecommunication Facilities including but not limited to nodes, distribution towers, connectors, splices, fiber optic cable and other Telecommunication apparatus as needed. These items will be included in the Quote to be paid by the Applicant.

6.5 Costs and Billing

The developer is responsible for the complete cost of the backbone system as designed by the District in accordance with the District's standard labor and material rates. The District will provide a Quote to the developer for planning purposes. The developer must pay the Quoted cost prior to the commencement of construction. Depending on the project complexity, size and engineering required, the District may specify the Applicant pay the actual cost of construction, may be billed in installments during project progress, and/or may require a true-up prior to the backbone system's being energized and made available for electrical connections by lot owners.



7 – Water Service Extension

7 Water Service Extension

7.1 General Provisions

The District provides facilities for the distribution of water within its systems in accordance with local community water agreements, approved land use documents, applicable water comprehensive plans, and Washington State Department of Health (DOH) approval and policies. The District operates nine community water systems within Pend Oreille County:

- Metaline Falls
- Lazy Acres
- Sunvale
- Holiday Shores
- Riverbend
- Riverview
- Sandy Shores
- Greenridge
- Granite Shores



Requests for interconnection must be within the defined Service Area boundaries of one of the District's community water systems. Applicants are financially responsible for all costs in constructing (including but not limited to all costs of design, permitting, property acquisition, and construction) a requested Water Facility Line Extension in accordance with the Utility Services Extension Manual.

All Water Facility Extension applications are subject to engineering and financial feasibility analysis by the District. The District will evaluate the requests for extensions consistent with District business practices to determine if the services can be provided technically, efficiently and economically. Where the Applicant's property is not adjacent to the District's water system, or if the line to the Applicant's property is not adequately sized to provide the required service, as determined by the District, the Applicant shall be financially responsible to upgrade facilities remote from the Applicant's property and/or extend the line to its point(s) of service.

Water Facility Extensions are subject to applicable laws, ordinances, franchises, construction standards, design standards, and other reasonable conditions, determined by the District in its sole discretion. This includes the mitigation of any physical and geological risks. The District may require an Applicant to conduct a professional study that the District determines is appropriate for the given conditions. The District may refuse to accept an application or give final acceptance to a Water Facility Extension for reasons the District determines to be appropriate. This may include, but is not limited to, risk of harm to District Water Facilities or Utility Service, safety, access and/or operation and maintenance limitations, geotechnical risks that the Applicant cannot mitigate to the District's satisfaction, and/or unwillingness or inability of the Applicant to comply with the District's conditions.

7.2 Definitions

- **Water Facilities** - The pipelines, pump stations, reservoirs, structures, control Equipment, pressure reducing stations, related appurtenances and all other related and necessary facilities for the proper function of the District's Water Systems.
- **Main** - Water pipes owned by, or to be owned by, the District used for the purpose of conveying water to the Customer's service connection.

7.3 Extension Costs

Applicants who desire water service from an existing water system must pay the full cost for attaining such service. Costs include the review, permitting, Easements, materials and labor, and the costs of any additional upgrades to the system that may be needed to make the extension.

7.4 Resale of Water

Water is not to be re-sold by the Customer, except by special agreement or written permission from the District. In no case, unless approved in writing by the District, may the rates charged for resale of water exceed the rates charged by the District for similar service.

Those wishing to fill water vessels or trucks with water must complete an Application to withdraw water, which will be reviewed by the District.

7.5 Design

General

The District will engage a professional engineer, experienced in water system design, to design the Water Facility Extension. The design phase of the line extension process includes, but is not limited to, preparation of plans and specifications, Right-of-Way identification, permitting and review. The District will review, approve the plans and specifications, and if applicable, seek review and approval by the Washington State Department of Health and/or Ecology.

Metering

Appropriately sized meters are required for all new connections, both existing and for new Customers. The District will select and install all service metering as part of the project.

Low Pressure

If the District determines that a property supplied by the extension is at an elevation that cannot be furnished with adequate pressure at all times, the applicant will be obligated to execute a low-pressure agreement prior to final acceptance of the application by the District.

Pressure Reducing Valves

Customers are encouraged to install pressure-reducing valves in accordance with the latest edition of the Uniform Plumbing Code when water main pressure exceeds 80 pounds per square inch (PSI). The pressure-reducing valves, when required, must be installed and maintained by the Customer, on the Customer's services line outside the vault and at the Customer's sole expense. The District shall not be liable for any loss of claim resulting from the failure of the District's or Customer's pressure-reducing valve to protect the Customer's plumbing and associated equipment.

Cross Connection Controls and Back Flow Prevention

- **Customer's Responsibility to Prevent Backflow**

The installation or maintenance of any cross connection with the District's water supply is prohibited. Any cross connection found must be terminated by the Customer at their own expense.

The District may discontinue Water Service in the event a cross connection is identified and not removed after notification from the District. The District may also deny or discontinue Water Service to any Applicant or Customer failing to cooperate in the installation, maintenance, testing, or inspection of backflow prevention assemblies required.

- **Backflow Prevention Specifications**

As a condition of new or continued Water Service, approved backflow prevention assemblies shall be installed and maintained by all Customers who:

- Are industrial or commercial Customers not entitled to an exemption;
- Operate commercial or residential fire sprinkler systems connected to their plumbing;
- Operate irrigation systems connected to their plumbing and the District's system;
- Maintain cross connections of their Water System with air conditioning systems, medical or dental equipment, beverage machines, or other devices or processes where chemicals or other substances with the potential to threaten public health have the potential to be introduced into the Water System;
- Have plumbing arrangements that make it impractical for the District to verify potential cross connections; and
- Are judged by the District to be in a situation where it is necessary to protect the District's Water System or to protect the public's health and safety.

Any backflow prevention assembly installed shall be approved by the Washington State Department of Health and the District. Unless an exemption is granted by the District, the minimum backflow prevention assembly installed shall be a double check valve assembly. A reduced pressure backflow assembly is required whenever toxic materials are present, whenever the District finds the cross connection poses a health hazard or whenever the District finds intricate plumbing arrangements which make it impractical to determine whether cross connections exist. The double check valve assembly and reduced pressure backflow assembly shall be installed at the service connection downstream from the water meter and prior to any branch connections or taps from the Customer's service piping.

Vacuum breakers may be substituted for other backflow prevention assemblies required under this regulation where the District determines that the circumstances allow such substitution without compromising water quality and public health. Where the Applicant or Customer can demonstrate, to the satisfaction of the District, that there are no cross connections, and that no health hazard exists, the District may grant the Customer an exemption. Exemptions are at the sole discretion of the District, and subject to periodic review. Exemptions may be revoked whenever a cross connection is made, or a risk to public health or water quality is identified.

- **Backflow Device Maintenance and Inspection**

The District has the right to inspect, approve, and deny backflow prevention assemblies, to require corrections, modifications, repairs, or maintenance on backflow prevention assemblies and to inspect the Customers premises where backflow prevention assemblies may be required. The District shall not be liable for any loss or claim resulting from cross connection.

As a condition for continued Water Service, Customers shall make their Premises, including buildings and structures, to which water is supplied accessible to District personnel. District personnel will determine whether backflow prevention assemblies are required or if they are properly installed and maintained. Failure of a Customer to allow access shall result in the installation of a proper backflow assembly at a location readily accessible to District personnel.

- **Interconnection to Private Water Supplies**

The District prohibits interconnection of private water supplies with the District's water distribution system. Auxiliary water sources (private wells, piped irrigation sources, etc.) are a cross connection and must be effectively isolated from the District's Water System using an approved backflow prevention assembly. The Customer shall allow the District to visually inspect piping on Premises retaining auxiliary water sources.

- **Backflow Assembly Testing**

All backflow prevention assemblies are subject to annual inspection and testing. The cost of installation, annual performance testing, and any required maintenance of the backflow prevention assemblies is the responsibility of the Customer. The District will provide advance notice to the Customers including testing and inspection due dates, as well as a list of Certified Backflow Prevention Assembly Testers.

It is the Customer's responsibility to only use qualified backflow assembly testers certified in the State of Washington and approved by the District. The District's approval or lack of approval of the Customer's Tester shall not place any responsibility or liability on the District for the condition or maintenance of the Customer's backflow assembly or plumbing.

The following standards shall apply to all testing, repair, and certification of backflow prevention assemblies within the District's Service Area.

- No person other than an employee of the District is authorized to operate the street-side meter shutoff valve (angle meter, curb stop or gate valve).
- Backflow prevention assembly installations shall be in conformance with current District standard practices.
- All newly installed backflow assemblies shall be pressure regulated if the inlet pressure exceeds the manufacturer's rated working pressure.
- When testing an existing backflow assembly, the proper installation/application for that type of assembly shall be verified and reported only on District backflow assembly test report forms.
- When testing a new backflow assembly, testers may use the District's blank test report forms or District approved backflow assembly test report forms. The forms must contain all information pertaining to the test and must be legible.
- The original copy of all completed backflow assembly test reports must be submitted to the District within thirty (30) days of the initial test, but in no case received by the District after the listed due date. If repairs are needed that require more time than allowed by the test notice deadline date, the tester, or Customer shall contact the District for an extension to the original deadline.
- The tester must report any tampering, improper installations or plumbing that could result in backflow to the District.

7.6 Final Connection to District Systems

Only after final inspection, pressure testing and the District's receipt of satisfactory bacteriological testing results can the final connections to the District's existing water system be made.



8 – Facility Abandonment

8 Facility Abandonment

8.1 Facility Abandonment General Provisions

Facility abandonment refers to District facilities and equipment that are no longer used to provide services to the end Customer. The reasons for abandonment may vary; however, unused facilities still require maintenance by the District for the safety of the public and the reliability of the equipment. In some cases, it is more cost effective for the District to remove facilities and reduce the liability and costs for the District ratepayers.

Customers may request the District abandon and remove infrastructure due to changing needs, changes to their property, or removal of buildings that the facilities serviced. Occasionally, service may be disconnected from a residence, building, equipment, or business for an extended period of time.

8.2 Restoring a Previously Abandoned Service

A service is considered abandoned when it has been unused for longer than 18 consecutive months. District will inspect all equipment and facilities that have been abandoned prior to reenergization. Lines and poles will be inspected for damage, vegetation contact and suitability for reenergization. The Customer will be required to have their electric service panel inspected by the Washington State Department of Labor and Industries (L&I) to ensure their service is safe to energize prior to the District reenergizing the service.

The District may determine that equipment may have to be repaired, replaced and/or upgraded to restore service. If so, the Customer will be responsible for all repair costs. The Customer will be given a Quote to restore service, and the Quote must be paid in full before construction work will commence. If the work is considered significant, the Customer may be advised to submit an Application for a new line extension request.

8.3 District Condemnation of an Abandoned Service

The District has sole discretion to condemn and remove abandoned equipment and facilities when the have been abandoned for more than 5 years. Equipment may be removed and reused at other locations at the District from any abandoned facilities at any time. After 5 years, lines and poles may be removed, or underground lines may be abandoned in-place below grade level, to protect the public, or reduce the cost of maintenance of District infrastructure. The District has sole discretion to maintain title to the established Easements, and any permitting that may be part of the Rights-of-Way.

8.4 Requests to Abandon or Remove Infrastructure

Customers can, at any time, request that their service, or infrastructure on their property be abandoned or removed. If requested, the Customer will be responsible for all costs and fees incurred to remove the infrastructure. The District has sole discretion in deciding if removing the infrastructure, or abandoning underground in place is in the best interest of the District and its ratepayers.

As part of a requested abandonment or removal of infrastructure, the District will salvage as much of the equipment as reasonable. All overhead lines, equipment and poles will be removed. Underground lines will be abandoned in place. The District will not excavate for the removal of underground services.

No work will begin until the Applicant/Customer pays the Quote for removal. All Easements will remain with the District, unless otherwise stipulated in a written agreement.



9 – Distributed Generation/Alternative Power Generation Request

9 Distributed Generation/Alternative Power Generation

9.1 General Purpose and Provisions

The Distributed Generation/Alternative Power Generation Request process establishes the terms and conditions governing the interconnection of electric generating facilities with a maximum generating capacity of less than or equal to 100 kilowatts to the electric system over which the District has jurisdiction.

Generating facilities with generating capacities greater than 100 kW are interconnected in accordance with the Energy Policy Act of 2005, Pub. L. No. 109-58 (2005) that amended section 111 (d) of the Public Utility Regulatory Policies Act (PURPA).

Distributed Generation/Alternative Power Generation Requests must conform to the requirements of chapter 80.60 RCW, Net Metering of Electricity, and to comply with provisions of the Energy Policy Act of 2005, Pub. L. No. 109-58 (2005) that amended section 111 (d) of the Public Utility Regulatory Policies Act (PURPA) relating to Net Metering (subsection 11) and Interconnection (subsection 15). Additionally, these interconnections may be under specific federal, state or local incentive programs, and may need to conform to those specific programs for incentives, rebates or credits.

Distributed Generation/Alternative Power Generation Requests do not apply to standby (emergency or back-up) generators designed and used to provide power when District service is interrupted, and operate in parallel with the District system for less than 0.5 seconds when switching between emergency and normal service.

This document governs the terms and conditions under which the Applicant's facility will interconnect with, and operate in parallel with, the District's electric system. This does not govern the settlement, purchase, or delivery of any power generated by the Applicant's Generating Facility.

9.2 Application of Rules

The request to connect Distributed Generation/Alternative Power Generation is technical and may cause damage to District equipment or jeopardize the safety of District Personnel. The specifications and requirements are intended to mitigate possible adverse impacts caused by the Generating Facility on District equipment and personnel and on other Customers of the District. They are not intended to address protection of the Generating Facility itself, Generating Facility personnel, or its internal load. It is the responsibility of the Generator to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect its own facilities, personnel, and loads. These rules modify, if necessary, any existing interconnection rules of the District, including but not limited to, rules implementing chapter 80.60 RCW, Net Metering of Electricity.

9.3 Definitions

- **Generating Facility** - Means a source of electricity owned by the Applicant or Generator that is located on the Applicant's side of the point of common coupling, and all facilities ancillary and appurtenant thereto, including interconnection facilities, which the Applicant requests to interconnect to the District's electric system.
- **Generator** - Means the entity that owns and/or operates the Generating Facility interconnected to the District's electric system.
- **Initial Operation** - Means the first time the Generating Facility is in parallel operation with the electric system.

- **Net Metering** - Means measuring the difference between the electric energy supplied by a District and the electric energy generated by a Generating Facility over the applicable billing period.
- **Parallel Operation or Operate in Parallel** - Means the synchronous operation of a Generating Facility while interconnected with a District's electric system.
- **Point of Common Coupling or PCC** - Means the point where the Generating Facility's local electric power system connects to the District's electric system, such as the electric power revenue meter or at the location of the equipment designated to interrupt, separate or disconnect the connection between the Generating Facility and District. The point of common coupling is the point of measurement for the application of IEEE 1547, clause 4.
- **Production Metering** - Means measuring the total electric energy produced by an electric Generating Facility over the applicable billing period.

9.4 Technical Standings for Interconnection

General interconnection requirements:

- Any Generating Facility desiring to interconnect with the District's electric system or modify an existing interconnection must meet all current minimum technical specifications applicable.
- The Generation Facility must comply with all requirements from Table 1 that are applicable to the interconnection of that Generating Facility.

Table 1 - Interconnection Requirements

Feature	Single-Phase		Three-Phase	
	≤ 25 kW Inverter based	≤ 25 kW Non-Inverter based	≤ 100 kW Inverter Based	≤ 100 kW Non-Inverter Based
IEEE 1547 compliant	√	√	√	√
UL 1741 listed	√		√	
Interrupting devices (capable of interrupting maximum available fault current)	√ [8]	√	√ [8]	√
Interconnection disconnect device (manual, lockable, visible, accessible)	√	√	√	√
System Protection	√ [9][5]	√ [3][4][6]	√ [9][5]	√ [3][4][5][6]
Over-voltage trip	√ [8]	√	√ [8]	√
Under-voltage trip	√ [8]	√	√ [8]	√
Over/Under frequency trip	√ [8]	√	√ [8]	√
Automatic synchronizing check		√		√
Ground over-voltage or over-current trip for District		√ [2]		√ [2]
Power factor		√ [7]		√ [7]

√ – Required feature (blank = not required)

* Capacity of single or aggregate generation

[1] – District may choose to waive this requirement.

[2] – May be required by the District; selection based on grounding system.

[3] – No single point of failure shall lead to loss of protection.

[4] – All protective devices shall fully meet the requirements of ANSI C37.90.

[5] – District will specify the transformer connection.

[6] – It is the customers' responsibility to ensure that their system is effectively grounded as defined by IEEE Standard 142 at the point of common coupling.

[7] – Variance may be allowed based upon specific requirements per District review. Charges may be incurred for losses.

[8] – UL 1741 listed equipment provides required protection for inverter based generation.

[9] – Per UL Standard #1741 ("UL1741") manufacturers must submit their equipment to a Nationally Recognized Testing Laboratory ("NRTL"), recognized by the United States Department of Labor, Occupational Safety & Health Administration (OSHA), that verifies compliance with UL1741. This Listing is then to be displayed clearly on the equipment and any supporting documentation.

- Any single or aggregated Generating Facility with a capacity greater than 25 kW shall require a three-phase interconnection to the District's facilities.
- The specifications and requirements shall apply generally to the Generator-owned electric generation equipment (or any other facilities or equipment not owned by the District) to which these standards and agreement(s) apply throughout the period encompassing the Generator's installation, testing and commissioning, operation, maintenance, decommissioning and removal of said equipment. The District may verify compliance at any time, with reasonable notice.
- The Generator shall comply with the requirements of this document and cited standards and requirements. However, at its sole discretion, the District may approve alternatives that satisfy the intent of, and/or may excuse compliance with, any specific elements of the requirements except local, state and federal building codes.
- **Code and standards** - Generator shall conform to all applicable codes and standards for safe and reliable operation. Among these are the National Electric Code (NEC), National Electric Safety Code (NESC), the Institute of Electrical and Electronics Engineers (IEEE), American National Standards Institute (ANSI), and Underwriter's Laboratories (UL) standards, and local, state and federal building codes. The Generator shall be responsible to obtain all applicable permit(s) for the equipment installations on its property.
- **Safety** - All safety and operating procedures for joint use equipment shall be in compliance with the Occupational Safety and Health Administration (OSHA) Standard at 29 CFR 1910.269, the NEC, NFPA 70E, Washington Administrative Code (WAC) rules, the Washington Division of Occupational Safety and Health (DOSH) Standard, and equipment manufacturer's safety and operating manuals.
- **Power quality** - Installations will be in compliance with all applicable standards including IEEE Standard 519-1992 Harmonic Limits. The District may determine, at its sole discretion, that the IEEE Standard 519-1992 Harmonic Limits is insufficient or inadequate and therefore establish a new compliance standard. Whenever a Generator's equipment has characteristics which causes interference (e.g., harmonics, transients, waveform distortions, fluctuations, etc.) with the District's service to other Customers, the Generator causing the interference shall make changes in such equipment or provide, at their own expense, additional equipment to eliminate the interference. Power quality of the Generator shall meet the NFPA 70, IEEE 519 standard, and ANSI C84.1 standard.

9.5 Specific interconnection requirements

The Generator shall furnish and install on their side of the meter, a UL approved safety disconnect switch with a visible open, which shall be capable of fully disconnecting the Generating Facility from the District's electric system. The disconnect switch shall be located adjacent to District meters and shall again be of the visible break type in a metal enclosure that can be secured by a padlock. The visible open disconnect switch shall be accessible to District personnel at all times.

The District shall have the right to disconnect the Generating Facility at the visible open disconnect switch under the following circumstances:

- When necessary to maintain safe electrical operating conditions;
- If the Generating Facility does not meet required standards; or
- If the Generating Facility at any time adversely affects or endangers any person, the property of any person, the District's operation of its electric system or the quality of the District's service to other Customers.

Nominal voltage and phase configuration of the Generating Facility must be compatible to the District system at the point of common interconnection.

The Applicant must provide evidence that the Generation Facility will never result in reverse current flow through the District's network protectors. All instances of interconnection to secondary spot distribution networks shall require review and written pre-approval by the District. Interconnection to distribution secondary grid networks is not allowed. Closed transition transfer switches are not allowed in secondary network distribution systems.

Applicant must ensure that generating equipment complies with UL Standard #1741 (UL1741) and IEEE Standards C62.41.1 and C62.41.2. Compliance must be clearly evidenced on equipment and supporting documentation.

9.6 Specifications applicable to all inverter-based interconnections

In addition to requirements contained in Section 4(1) and 4(2), any inverter-based Generating Facility desiring to interconnect with the District's electric system or modify an existing interconnection must meet the technical specifications, as set forth below. A more recent approved version may supersede specifications on the list below.

- IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, for systems 10 MVA or less.
- UL Standard 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems. Equipment must be UL listed.
- IEEE Standard 929, IEEE Recommended Practice for District Interface of Photovoltaic (PV) Systems.
- IEEE Standard 1526m IEEE Recommended Practice for Testing and Performance of Stand-Alone Photovoltaic Systems.
- IEEE Standard 1547.1, Conformance Test Procedures for Equipment Interconnecting Distributed Resources with Electrical Power Systems.
- IEEE Standard 1547, Application Guide for Interconnecting Distributed Resources with Electric Power Systems.

If the District determines that a particular code is insufficient or inadequate to avoid detrimental electrical disturbances and/or issues, the District, in its sole discretion, may establish a higher standard.

9.7 Requirements applicable to all non-inverter-based interconnections

In addition to the requirements contained in Section 4(1) and 4(2), non-inverter-based interconnection requests may require more detailed District review, testing, and approval, at Applicant cost, of the equipment proposed to be installed to ensure compliance with applicable technical specifications, in their most current approved version, including:

- IEEE Standard 1547, Standard for Interconnecting Distributed Resources with Electric Power Systems, for systems 10 MVA or less.
- ANSI Standard C37.90, IEEE Standard for Relays and Relay Systems Associated with Electric Power Apparatus.

Applicants proposing such interconnection may also be required to submit a power factor mitigation plan and/or other studies or plans as appropriate for District review and approval.

9.8 Interconnection Studies

Once an Application is accepted by the District as complete, the District shall conduct a site review and shall determine if any additional engineering, safety, reliability or other studies are required.

Interconnection studies determine the impact on system performance due to added generation and identify additions and/or upgrades to the electrical system.

If the District determines that additional studies are required, the District will provide to the Applicant or Generator a Quote letter. The Quote letter shall include a description of the studies and a good faith estimate of cost to perform the studies. The Applicant shall have thirty (30) business days to review the Quote letter and provide the District with any deposit required. Failure to return the completed agreements and required deposits within the time frames specified may result in termination of application process by the District.

Upon completion of the studies, the District shall provide the Applicant with the results of the studies, including any additional interim agreements, such as construction agreements, that may be necessary and a cost Quote to complete the interconnection. If the studies determine that the interconnection is denied pursuant to RCW 80.60, the District shall provide notice of denial to the Applicant, and the reasons for the denial.

9.9 General Terms and Conditions of Interconnection

Any electrical Generating Facility must comply with these rules to be eligible to interconnect and operate in parallel with the District's electric system. These terms and conditions apply to all interconnecting Generating Facilities that are intended to operate in parallel with the District's electric system irrespective of whether the Generator intends to generate energy to serve all or a part of their own load; or to sell the output to the District or any third party purchaser.

- It is the responsibility of the Generator to protect its facilities, loads and equipment and comply with the requirements of all appropriate standards, codes, statutes and authorities.
- For the overall safety and protection of the District system, chapter 80.60 RCW currently limits interconnection of generation for net metering to 0.25 percent of the District's peak demand during 1996, and, beginning in 2014, to 0.50 percent of the District's peak demand during 1996. Additionally, interconnection of generating facilities to individual distribution feeders will be limited to 10-percent of the feeder's peak capacity. However, the District may, in its sole discretion, allow additional generation interconnection beyond these stated limits, or, if indicated by engineering, safety or reliability studies, restrict or prohibit new or expanded interconnected generation capacity on any feeder, circuit or network.
- To ensure system safety and reliability of interconnected operations, all interconnected Generating Facilities shall be constructed and operated by the Generator in accordance with this agreement and all other applicable federal, state, and local laws and regulations.
- If the interconnected Generating Facility is owned by a third-party, the third-party and the Generator shall both indemnify and hold harmless the District for all risks associated with the

facility being interconnected to the District's system, including liability for the District disconnecting the facility. In addition, the Generator executing the interconnection agreement for the third-party Generating Facility shall obtain all legal rights and Easements requested by the District for the District to access, install, own, maintain, operate, replace or remove its equipment, on the real property where the Generating Facility is located, or at the Generating Facility itself, at no cost to the District.

- Prior to initial operation, the Generator must obtain a deliver a certificate of completion to the District, execute the Customer Interconnection Agreement and complete any other agreement(s) required for the disposition of the Generating Facility's electric power output. This Customer Interconnection Agreement between the District and Generator outlines the interconnection standards, cost allocation and billing agreements, and on-going maintenance and operation requirements.
- The Applicant or Generator shall promptly furnish the District with copies of such plans, specifications, records, and other information relating to the Generating Facility and the ownership, operation, use, or maintenance of the Generating Facility, as may be reasonably requested by the District from time to time.
- For the purposes of public and District personnel safety, any non-approved generation interconnections discovered, or modifications made to existing facilities, will be cause for immediately disconnection from the District system.
- To ensure reliable service to all District Customers and to minimize possible problems for other Customers, the District will review the need for a dedicated-to-single-customer distribution transformer. If the District requires a dedicated distribution transformer, the Applicant or Generator is required to pay all costs of the new transformer and related facilities.

9.10 Metering

- Net metering for fuel cells, facilities that produce electricity using thermal energy from a common fuel source, or facilities that use water, wind, solar energy, or biogas as a fuel as set forth in chapter 80.60 RCW. The District, at Customer's expense, shall install, own and maintain a kilowatt-hour meter, or meters as the installation may determine, capable of registering the bi-directional flow of electricity at the point of common interconnection at a level of accuracy that meets all applicable standards, regulations and statutes. The meter(s) may measure such parameters as time of delivery, power factor, voltage and such other parameters as the District shall specify. The Applicant shall provide space for metering equipment. It is the Applicant's responsibility to provide and install the current transformer enclosure (if required), meter socket(s) and/or junction box. The District may approve other generating sources for net metering but is not required to do so.
- Production metering: The District requires separate metering for production, capable of being remotely accessed. This meter will record all generation produced and may be billed separately from any net metering or Customer usage metering. It is the Applicant's responsibility to provide and install the meter socket(s) after the Applicant has submitted drawings and equipment specifications for District approval. The District shall provide and install the production meter(s). All costs associated with production metering will be paid by the Applicant.
- Common meter labeling furnished or approved by the District and in accordance with NEC requirements must be posted on the meter base, disconnects, and transformers informing working personnel that generation is operating at or is located on the premises.

- No additional insurance will be necessary for a net metered facility that is a qualifying Generating Facility under chapter 80.60 RCW. This is a facility that is 100 kW or less; and that uses water, wind, solar energy, or biogas from animal waste as a fuel, fuel cells, or that produces electricity and uses thermal energy from a common fuel source. For other Generating Facilities permitted under this program, but not a qualifying facility under chapter 80.60 RCW, additional insurance, limitations of liability and indemnification may be required by the District.
- Unless otherwise agreed through a signed interconnection agreement, the Generator will be allowed to generate up to the maximum amount to offset their annual residential or commercial load use. On April 30 of each year, any unused account balance of excess generation by the Customer will be zeroed out and a new account balance will begin on May 1. The District does not purchase excess generation generated by the facility under this program, unless it is stipulated in a power purchase agreement. The Customer will be billed for any outstanding load not offset by the generation balance.

9.11 Facility Modification, Expansion, Removal from Service and Sale

- The Generator may disconnect the Generating Facility at any time; provided that the District is given at least 3 business days advance notice by the Generator.
- Prior to any future modification or expansion of the Generating Facility, the Generator is required to obtain District review and approval. The District reserves the right to require the Generator, at the Generator's expense, to provide corrections, modifications or additions to existing electrical devices in the event of changes to industry standards and requirements.
- Generator shall notify the District prior to the sale or transfer of the Generating Facility, the interconnection facilities or the premises upon which the facilities are located. The Generator shall not assign its rights or obligations under any agreement without the prior written consent of the District.

9.12 Certificate of Completion

All Generating Facilities must obtain an electrical permit and pass an electrical inspection by the Washington State Department of Labor and Industries (L&I) before the facility(ies) can be connected or operated in parallel with the District's electric system. The Generator shall provide the District written certification that the Generating Facility has been installed and inspected in compliance with the local building and/or electrical codes. The District must review and approve in writing the certificate of completion. The District may withhold such approval, and shall have the right to inspect and test the interconnection facilities in accordance with IEEE 1547.1 prior to parallel operation.

9.13 Incentive Renewable Energy Programs

The Generator may apply for incentive payments for the development and installation of renewable energy. These programs may differ in reimbursement structure and amounts based on equipment used, where it is manufactured, and how much generation is installed. These programs are typically run by local, state or federal agencies. The District will assist the Generator in participating in these programs; however, the Generator is fully responsible for meeting the criteria of the program. Incentives may be provided directly through the program sponsor to the Generator, or may be issued by the District to the Generator. The District will be held harmless from liability in assisting the Generator qualify, participate in, or receive reimbursement.



10 – Transmission and Generation Facility Interconnection Requests

10 Transmission and Generation Facility Interconnection Requests

10.1 *Transmission and Generation Facility Line Extension General Provisions*

The District allows interconnection to its transmission³ system and generation facilities by large commercial, industrial or private generation facilities that need high voltage interconnections, have a large energy demand, or plan to generate energy delivered to the Bulk Electric System (BES). The Federal Energy Regulatory Commission (FERC) regulates the operation transmission system through standards enforced by the North American Electric Reliability Corporation (NERC). Applicants requesting service of over 100 kV are required to meet minimum technical requirements, and have power supply agreements for interconnection.

The District's Bulk Electric System transmission consists of approximately 60 miles of 115 kV transmission and four Transmission substations. Should the Applicant's request require interconnection to the Bonneville Power Administration (BPA) or Avista Utilities transmission systems, rather than the District's system, the District will provide the information needed to request interconnection to those systems.

Transmission interconnections require significant BES engineering and studies to ensure there are no negative impacts on the BES. Construction can take several years after the initial request, and require reliability studies before construction can begin. Applicants are encouraged to request these types of interconnections well in advance of their proposed project commissioning.

10.2 *Abbreviations and Definitions*

- kV – Kilovolts, a measure of 1,000 volts.
- kVA – Kilovolts volt-amps, a measure of true and reactive power.
- kW – Kilowatt, a measure of 1,000 watts of electrical power.
- kWavg – Kilowatt Average, the average demand in kilowatts over a period of time.
- kWh – Kilowatt-hour, a measure of kilowatts consumed over a one-hour period.
- MW – Megawatts, a measure of 1,000,000 watts.
- MVA – Megawatt volt-amps, a measure of both true and reactive power.
- MWavg – Megawatt Average, the average demand in Megawatts over a period of time.
- MWh – Megawatt-hour, a measure of megawatts consumed over a one-hour period.

10.3 *Transmission and Generation Facility Extension Construction Requirements*

Applicants requesting extension of District transmission facilities, to serve load or generation, should contact the District's Key Accounts Representative through the District's Customer Service Department. The Key Accounts Representative will guide the Applicant through the process of applying, providing the needed information, system studies, engineering and design, and construction. The Applicant may be put in direct contact with the District's Engineering Manager to discuss the concepts, and be provided the District's:

- *Customer Requirements for Transmission Interconnections*

³ **Transmission** – An interconnected group of lines and associated equipment for the movement or transfer of electric energy between points of supply and points at which it is transformed for delivery to customers or is delivered to other electric systems. District Transmission is operated at 115 kV and the operations, maintenance and planning is regulated by FERC approved NERC reliability standards as part of the BES.

- *Customer Requirements for Transmission Interconnections Appendix A Application*
- *Customer Requirements for Transmission Interconnections Appendix B Technical Requirements*

These documents outline the detailed process to complete a transmission interconnection. The process is summarized in this manual for clarity only. The Applicant is responsible for all costs incurred by the District throughout the process. Agreements and payment must be secured and within the timelines specified prior to the District performing any services.

The District will not begin an assessment of the feasibility of a transmission interconnection until the Applicant submits a completed application, has signed all needed agreements, and submitted sufficient payment for each step. Alternately, the District’s Engineering Manager may identify that the request to interconnect is applicable to BPA or Avista, rather than the District. Both BPA and Avista interconnect with the District’s Transmission System and have their own Transmission interconnection request processes.

10.4 System Impact and Feasibility Studies

The District’s Planning Engineer will determine the need for a System Impact and Feasibility Study once a completed application for transmission interconnection is accepted. The process will follow current District engineering practices and be consistent with the processes outlined in the Customer Requirements for Transmission Interconnections. In some cases, due to the impact on other owners of transmission facilities, the District may engage BPA or Avista Utilities to complete the studies.

The Applicant will receive a final report when studies are completed. If the studies show the project is feasible the process could move on. Should the report indicate that the project, as designed, is not feasible, the Applicant can withdraw the project or resubmit an alternative plan.

10.5 Land Acquisition and Land Use Planning

The District will, unless otherwise agreed to by both parties, perform all land acquisition activities for the construction of the interconnection. The Applicant will be responsible to fund all land acquisitions and permitting in advance.

10.6 Design and Construction

The District will, unless otherwise agreed to by both parties, perform all design and construction of the Service Facilities. The Applicant will be required to enter into an agreement within the specified timeline to provide funding and authorize the necessary work. Work will not start until funding is secured.

Depending on the nature of the project, additional agreements such as, but not limited to, an Electric Services Agreement, Operations and Maintenance Agreement, Interconnection Agreement and a Property Access Agreement may need to be completed before construction can begin. Agreements will include the identification of the point(s) of demarcation and ownership of certain equipment.

10.7 Review, Testing, Interconnection Agreement and Energize

Once construction is completed, and before equipment is energized, the new facility and equipment must be tested, as agreed upon. As-built drawings, operating instructions, and other relevant materials must be provided to the District by the Applicant. When found in conformance with the District’s standards for design, the Applicant must tender an Interconnection Agreement for the long-term operation and maintenance of the interconnected facilities.

A Transmission O&M Agreement must also be completed covering the Transmission capacity and Transmission services that must be in place prior to energization. Once all agreements are completed, the District shall energize the new facilities. If the District does not maintain direct control of the facilities, it shall maintain back-up control if the facilities are deemed vital for system reliability.