6. Interconnections Standards Policy

6.1 Application of Rules

6.1.1 These rules include various requirements applicable to the District and the customer applicant for generating capacity of not more than 100 Kilowatts.

6.1.2 These rules can 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 and Public Utility Tax.

6.2 Technical Standards for Interconnection

The technical standards listed in this section shall apply to all generating facilities to be interconnected to the District under this policy.

6.2.1 General interconnection requirements:

6.2.1.1 Any generating facility desiring to interconnect with the District’s electric system or modify an existing interconnection must meet all minimum technical specifications applicable, in their most current approved version, as set forth in this policy.

6.2.1.2 The specifications and requirements in this section are intended to mitigate possible adverse impacts caused by the generating facility on District equipment and personnel and on other customers of Cowlitz PUD. 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 generating facility to comply with the requirements of all appropriate standards, codes, statutes and authorities to protect its own facilities, personnel, and loads.

6.2.1.3 The specifications and requirements in this section shall apply generally to the non-District-owned electric generation equipment to which this standard 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.

6.2.1.4 Code and standards: Applicant 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 Underwriters 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.

6.2.1.5 Safety: All safety and operating procedures for joint use equipment shall be in compliance with the Occupational Safety and Health Administration (OSHA) Standard 29, CFR 1910.269, the NEC, Washington Administrative Code (WAC) rules, the Washington Industrial Safety and Health Administration (WISHA) Standard, and equipment manufacturer’s safety and operating manuals.

6.2.1.6 Power Quality: Installations will be in compliance with all applicable standards including IEEE Standard 519-1992 Harmonic Limits.

6.2.2 Specific interconnection requirements.

6.2.2.1 Applicant shall furnish and install on applicant’s side of the meter, a UL-approved safety disconnect switch which shall be capable of fully disconnecting the applicant’s generating facility from the District’s electric system. The disconnect switch shall be located adjacent to District meters and shall be of the visible break type in a metal enclosure which can be secured by a padlock. The disconnect switch shall be accessible to Cowlitz PUD personnel at all times.

6.2.2.2 The requirement in subsection 6.2.2.1 above may be waived by the District if: 1) applicant provides interconnection equipment that applicant can demonstrate, to the satisfaction of the District, performs physical disconnection of the generating equipment supply internally; and 2) applicant agrees that its service may be disconnected entirely if generating equipment must be physically disconnected for any reason.

6.2.2.3 The District shall have the right to disconnect the generating facility at the disconnect switch under the following circumstances:

- when necessary to maintain safe electrical operating conditions;
- if the generating facility does not meet required standards, or these rules;
- 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; or
- failure of the owner of record, as filed with the District, to notify the District of a sale or transfer of the generator, interconnecting facilities or the premises on which the generator is located.

6.2.2.4 Nominal voltage and phase configuration of applicant’s generating facility must be compatible to the District system at the point of common coupling.
6.2.3 Specifications applicable to all inverter-based interconnections. Any inverter-based generating facility desiring to interconnect with the District’s electric system or modify an existing interconnection must meet the technical specifications, in their most current approved version, as set forth below.


6.2.3.2 UL Standard 1741, Inverters, Converters, and Controllers for Use in Independent Power Systems. Equipment must be UL listed.


6.2.4 Requirements applicable to all non-inverter-based interconnections. Non-inverter based interconnection requests may require more detailed review, testing, and approval by the District, at applicant cost, of the equipment proposed to be installed to ensure compliance with applicable technical specifications, in their most current approved version, including:


6.2.4.3 Applicants proposing such interconnection may also be required to submit a power factor mitigation plan for District review and approval.

6.3 Application for Interconnection

6.3.1 When an applicant requests interconnection from the District, the applicant shall be responsible for conforming to the rules and regulations that are in effect and on file with the District. The District will designate a point of contact and provide a telephone number or website address for this purpose. The applicant seeking to interconnect a generating facility under these rules must fill out and submit a signed application form. Information must be accurate, complete, and approved by the District prior to installing the generating facility.

6.3.2 A non-refundable Application Fee will be required as listed in the Engineering Fee Schedule.

6.3.3 Application Prioritization: All generation interconnection requests pursuant to this policy will be prioritized by the District in the same manner as any new load requests.
Preference will not be given to either request type. The District will process the application and provide interconnection in a time frame consistent with the average of other service connections.

6.3.4 Application evaluation: All generation interconnection requests pursuant to this policy will be reviewed by the District for compliance with these rules. If the District in its sole discretion finds that the application does not comply with this policy, the District may reject the application. If the District rejects the application, it shall provide the applicant with written notification stating its reasons for rejecting the application.

6.4 General Terms and Conditions of Interconnection

6.4.1 Any electrical generating facility with a maximum electrical generating capacity of 100 kW or less must comply with these rules to be eligible to interconnect and operate in parallel with the District’s electric system. The rules under this policy shall apply to all interconnecting generating facilities that are intended to operate in parallel with the District’s electric system irrespective of whether the applicant intends to generate energy to serve all or a part of the applicant’s load.

6.4.2 In order to ensure system safety and reliability of interconnected operations, all interconnected generating facilities shall be constructed and operated by generator in accordance with this policy and all other applicable federal, state, and local laws and regulations.

6.4.3 Prior to initial operation, all generators must submit a certificate of completion to the District, which includes a completed utility inspection/witness test; execute the appropriate interconnection agreement, and any other agreement(s) required by these rules for the disposition of the generating facility’s electric power output. The interconnection agreement between the District and generator outlines the interconnection standards, cost allocation and billing agreements, and on-going maintenance and operation requirements. Forms can be found on the District’s website on the Net Metering page or may be requested from the Engineering Department.

6.4.4 Applicant or generator shall promptly furnish the District with copies of such plans, specifications, records, and other information relating to the generating facility or the ownership, operation, use, or maintenance of the generating facility, as may be reasonably requested by the District from time to time.

6.4.5 For the purposes of public and working personnel safety, any non-approved generation interconnections discovered will be immediately disconnected from the District system.
6.4.6  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. Interconnecting generating facilities under 100 kW may require a separate transformer. If the District requires a dedicated distribution transformer, the applicant or generator shall pay for all costs of the new transformer and related facilities.

6.4.7  Metering:

6.4.7.1  Net Metering for Solar, Wind, Hydropower and Fuel Cells as set forth in RCW 80.60: the District 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 coupling 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 will be the applicant’s responsibility to provide the current transformer enclosure (if required), meter socket(s) and junction box after the applicant has submitted drawings and equipment specifications for the District approval. The District may approve other generating sources for net metering but is not required to do so.

6.4.7.2  Production Metering. The District may require separate metering for production. This meter will record all generation produced and will be accounted for separately from any net metering or customer usage metering. All costs associated with the installation of production metering will be paid by the applicant, including the cost to provide and install a District owned meter.

- Single Phase - $250
- Three Phase – Actual costs.

6.4.7.3  Meter Aggregation. If requested, the District will provide meter aggregation. Kilowatt-hours credits earned by net metering during the billing period shall be first used to offset electricity supplied by the District. Not more than a total of 100 KW shall be aggregated per customer participating in net metering. Excess kilowatt-hours credits earned by the net metering system, during the same billing period, shall be credited equally by the District to remaining meters located on all premises of the net metering customer at the designated rate schedule of each meter. Meters will not change rate class due to meter aggregation.

6.4.8  Common labeling furnished or approved by the District and in accordance with NEC requirements must be posted on meter base, disconnects, and transformers informing working personnel that generation is operating at or is located on the premises.
6.4.9 As currently set forth for qualifying generation under RCW 80.60.040, for solar, wind, hydro or fuel cells no additional insurance will be necessary. However, the District shall not be liable directly or indirectly for permitting or continuing to allow an attachment of a net metering system, or for the act or omissions of the Generator that cause loss or injury, including death, to any third party. For other generating facilities permitted under these standards and rules but not contained within RCW 80.60, additional insurance, limitations of liability and indemnification may be required by the District.

6.4.10 Prior to any future modification or expansion of the generating facility, the generator will obtain District review and approval. The District reserves the right to require the generator, at the generator’s expense, to provide corrections or additions to existing electrical devices in the event of modification of government or industry regulations and standards.

6.4.11 For the overall safety and protection of the District system, RCW 80.60 currently limits interconnection of generation for net metering to 0.5% of the District’s peak demand during 1996. Additionally, interconnection of generating facilities to individual distribution feeders will be limited to 10% of the feeder’s peak capacity.

6.4.12 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.

6.4.13 Charges by the District to the applicant or generator in addition to the application fee, if any, will be the estimated District costs applied as appropriate. Such costs may include, but are not limited to, transformers, production meters, and District testing, qualification, and approval of non UL 1741 listed equipment. The generator shall be responsible for any costs associated with any future upgrade or modification to its interconnected system required by modifications in the District’s electric system.

6.4.14 This policy governs the terms and conditions under which the applicant’s generating facility will interconnect with, and operate in parallel with, the District’s electric system. This policy does not govern the settlement, purchase or delivery of any power generated by applicant’s generating facility. The purchase or delivery of power, including net metering of electricity pursuant to Chapter 80.60. RCW and other services that the applicant may require will be covered by separate agreement or pursuant to the terms, conditions and rates as may be from time to time approved by the District. Any such agreement shall be complete prior to initial operation and filed with Cowlitz PUD.

6.4.15 Generator may disconnect the generating facility at any time; provided that the generator provides reasonable advance notice to the District.
6.4.16 Generator shall notify Cowlitz PUD prior to the sale of the premises and transfer of ownership of the generating facilities, the interconnection facilities and the premises upon which the facilities are located. The applicant or generator shall not assign its rights or obligations under any agreement entered into pursuant to these rules without the prior written consent of the District, which consent shall not be unreasonably withheld.

6.5 Certificate of Completion

All generating facilities must obtain an electrical permit and pass electrical inspection before they can be connected or operated in parallel with the District’s electric system. Generator shall provide written certification to the District that the generating facility has been installed and inspected in compliance with the local building and/or electrical codes.

6.6 Required Filings – Exceptions

6.6.1 The District shall maintain on file for inspection at its place of business, the charges, terms and conditions for interconnections pursuant to these rules. Such filing includes forms of the following documents and contracts:

- Application
- Interconnection agreements
- Certificate of Completion
- Customer Checklist