

BES Sub-Meter Program Administrative Rules

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ENVIRONMENTAL SERVICES
CITY OF PORTLAND

working for clean rivers

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These are administrative rules of the Bureau of Environmental Services (BES) Sub-Meter Program.

1. Applicability

These rules apply to commercial ratepayers who:

- A. Want to demonstrate a quantity of sewage or drainage discharge below what would be assumed from their City-supplied water usage or other site conditions (such as quantity of impervious area);
- B. Use alternative water sources that discharge to City systems; or
- C. Use other site or facility processes that reduce sewage or drainage flows.

Ratepayers may be registered in the program upon their request or at the direction of the BES Director.

2. Purpose

These rules regulate the City's Sub-Meter Program and establish the BES decision-making criteria for measuring flows into and discharges from eligible commercial ratepayers to calculate accurately sewer and stormwater management service charges. These rules reinforce the City goals of charging commercial ratepayers for their actual use of City sewer, storm sewer, and drainage systems.

3. Definitions

Terms used in these rules are defined in Portland City Code (PCC) Chapter 17.36. and the following:

- A. **"Blowdown"** means water discharged from heating, ventilation, and air conditioning (HVAC) systems to the sewer to avoid the concentration of impurities during continued use.
- B. **"Totalizing Meter"** means a volumetric flow meter designed to measure and register total flow.
- C. **"Virtual Meter"** means a meter simulator used as a measurement and calculation alternative for determining flow volume. The term includes virtual charge meters and virtual product meters.
 - 1. **"Virtual Charge Meter"** means a virtual meter used to estimate site discharge volumes.
 - 2. **"Virtual Product Meter"** means a virtual meter used to measure the volume of water consumed in manufacturing products or onsite systems.

4. Regulatory Authority

These rules are authorized by Portland City Code (PCC) Section 3.13.040. These rules implement PCC Section 17.36.050 B.

5. Meters Required

Commercial ratepayers may choose or be directed to install any or all of the following meters:

A. Credit Meters. A commercial ratepayer may reduce the ratepayer's sewer user charges by demonstrating that the site uses more water onsite than is discharged to the City's sewer, storm sewer, and drainage systems. Flows measured by these meters will be deducted from sewer user charge calculations since these flows are not discharged to City systems. Credit meters include:

1. *Irrigation meters.* A meter that measures water used for irrigation of site landscaping.
2. *Make-up meters.* A meter that measures waters lost to evaporation and other processes, such as but not limited to building or production-line HVAC systems.
3. *Product meters.* A product meter measures the amount of water that is consumed in a production process or in a final product and that never discharges to a City system.
4. *Virtual product meters.* Virtual product meters can be used to estimate inflow sources and discharge reductions from site operations. Virtual product meters may be approved when physical meters are difficult to install onsite or may not accurately record reduced flows to City systems. A virtual product meter may be combined with a traditional product meter to account for all operations that withdraw water from discharge to City systems. Virtual product meter calculations must be supported by verifiable and quantifiable quantities of discharge reduction. Virtual product meters may be approved to estimate:
 - a. *Evaporative losses.* Used when the amount of water lost to evaporative and steam-based processes within commercial operations is not captured by traditional product meters.
 - b. *Moisture content losses.* Used to calculate the amount of City-supplied water retained as moisture content in solid-waste reuse, recycling or waste products.

Ratepayers with virtual meters must notify BES of any site modifications that could affect virtual meter calculations or estimates within 30 days of the process or site change.

B. Charge Meters. The Director may require a meter at each point of connection to the City system to calculate site discharge volumes to City sewer, storm sewer, and drainage systems. Sewer user charges will be calculated from readings of these meters.

1. *Discharge meter.* A meter that measures the volume of water discharged to the City's system.
2. *Bleed meter.* A meter that measures measure flows related to blowdown or emptying of HVAC systems.
3. *Private source meter.* A meter that measures the water used on a site that is from a source other than the City of Portland. Source examples include, but

are not limited to, wells, springs, and rainwater reuse. User charges are adjusted based on total site water usage.

4. *Rainwater harvesting meter.* A meter used to calculate the amount of rainfall captured in cisterns for reuse within a building or manufacturing process.
5. *Virtual charge meters.* A virtual charge meter may be used to calculate and measure flows that are discharged to City systems. A virtual charge meter may be combined with other meters to account for the total volume of water discharged to City systems. Virtual charge meters may include:
 - a. *Impervious area calculations.* Used for sites directing stormwater runoff from paved areas into sanitary-only systems. BES converts the estimated volume of runoff into a unit charge for the site and then adjusts the normal stormwater management service utility charges for the site accordingly.
 - b. *Employee count.* The Director may approve estimates of sewer system use based on employee count. These sites will be charged 15 gallons of sewage discharge per day per employee. Estimated flows will be divided by 748 to convert to the equivalent one-hundred cubic foot (ccf) unit for the final charge calculation.

Ratepayers with virtual meters must notify BES of any process or site modification that could affect virtual meter calculations or estimates within 30 days after the modification is complete.

6. Program Requirements

Commercial ratepayers participating in the Sub-Meter Program must comply with the following:

A. Application. Ratepayers must apply for participation in the program by using a BES Sub-Meter Application Form. Ratepayers wishing to use or establish a virtual product meter estimate must provide sufficient site discharge, water use and product moisture content data for BES review.

B. Program Approval.

1. Reduced charges or credit will not be granted prior to the acceptance date as documented in the Sub-Meter Program approval letter sent by BES. Reduced charges or credit will only be granted for those operations and processes identified in the approval letter.
2. Virtual meters will only be approved for sites that can:
 - a. Verify consistent water usage in manufactured products and waste products; or
 - b. Verify a standard unit of water usage that is not otherwise measurable.

Program participants making process or site changes that affect meter reads or calculations must notify BES within 30 days of the process or site change.

- C. **Meter Installation.** Program participants are responsible for purchase and installation of meters. Meters must be approved by the Director as to type, maintenance, calibration schedule, size, and location before installation. Meters must be totalizing meters, read in cubic feet, and meet the other installation standards of PCC 17.36.050 D.1 through 4. City of Portland plumbing permits may be required. Program participants must notify BES when installation is complete and schedule an initial Sub-Meter Program inspection.
- D. **Meter Maintenance.** Program participants must implement measures to ensure meter accuracy, including meter calibration and maintenance, and maintain meter access for City personnel.
- E. **Meter Reading.** Some program participants may be required to read their own meter volumes and provide applicable reports on the Sub-Meter Program reporting form to BES staff. A program participant who fails to provide credit meters reads for a period of two months or more may be deemed inactive and removed from the program. Reduced charges or credit will not be granted retroactively for the period in which no reports were submitted.
- F. **Inspection.** Program participants are required to allow City inspectors access to sub-meters to assure they are working appropriately or to read volumes for applicable billing cycles.

7. Program Fees, Charges, and Credits

Meter readings will be used by BES to accurately charge commercial customers on their sewer bills.

- A. **Program Fees.** Sub-Meter Program participants must pay appropriate administrative and Sub-Meter Program fees for each billing cycle. Fees are established in the annual rate ordinances that go into effect every July 1 and appear on the customer's water/sewer bill. Program administrative fees are assessed in two parts, one by the City Water Bureau and the other by BES.
- B. **Program Charges and Credits.** Measured volume usage meter readings must be submitted per customer, per site and for each individual meter. Meter reads may be submitted electronically to BES Sub-Meter Program staff. BES staff will track historical reads and prepare data for each billing cycle's sewer user charge or credit calculation. Credits are established after successful submittal of meter data. Retroactive credits are not available.
 - 1. **Make-up meters.** In lieu of a bleed meter, the City may grant an 80% credit against measured water used for cooling systems to account for the 20% of water discharged to City sewer and drainage systems from cooling system blowdown operations.

8. Violations

- A. **Violations.** Program participants will be considered in violation of the Sub-Meter Program for any violation of these rules and for the following:

1. Failure to maintain and calibrate meters;
2. Failure to provide charge meter reading reports to BES;
3. Falsification of reports;
4. Failure to provide access to meters for inspectors; and
5. Inaccurately stating the representative nature of a meter.

B. Violation Severity. Violations will be classified based on the harm or potential threat to public health, safety or the environment as described in the BES Enforcement Program administrative rules (PPD item ENB-4.15) and as follows:

1. *Class I.* Falsification of charge meter read data and denial of entry will be determined to be Class I violations.
2. *Class III.* Failure to provide charge metering reports and to appropriately maintain and calibrate meters will be determined to be Class III violations.

C. Enforcement and Penalties. A violation of this program will result in removal of any sub-meter discounted sewer and stormwater management service charges on the customer's water/sewer bill. Reversal of any discount may be retroactive based on the duration and nature of the violation. In cases of severe non-compliance with program requirements, the Director may remove commercial ratepayers from the program.

Enforcement actions and penalties related to falsification of data or meter tampering will be assessed as described in the BES Enforcement Program Administrative Rules (ENB-4.15).

9. Administrative Review and Appeal

A program participant may request reconsideration of a BES decision or enforcement action through administrative review and may subsequently appeal to the Code Hearings Officer.

A. Allowable Review and Appeal Items. A commercial ratepayer may request administrative review and subsequent appeal to the City Code Hearings Officer of:

1. BES's determination of a violation;
2. The amount of sewer and stormwater management service charges and credits applied to a customer's account for a billing period.

B. Non-Reviewable Items. The following will not be administratively reviewed and may *not* be appealed:

1. Actual volume usage registered on meters.

C. BES Evaluation. The Sub-Meter Program specific criteria of Section 6 will be used to make a final determination on an administrative review request.

D. Appeals. A ratepayer must complete a BES administrative review before appealing to the CHO under PCC Title 22. An appeal must be submitted to the BES Sub-Meter Program manager. The appellant must pay a fee equal to the

hearing fee charged by the CHO as listed on the BES annual rate ordinance. This money will be fully refunded via check if the CHO does not uphold the City's final determination in its entirety.

APPENDIX A – Background Information

The Sub-Meter Program has traditionally been a voluntary program for high water-use commercial ratepayers. Ratepayers are generally referred by city discharge permit managers or from the Water Bureau's customer service staff. Given program changes in the Fats, Oil and Grease, Extra Strength Charges, and System Development Charge True-up programs, more commercial ratepayers are being recommended or directed to participate in the program as part of their permit or discharge program compliance efforts.

Meters Required

Section 5.A Credit meters can reduce costs primarily justifying the use of lower flow rates used to calculate sewer user charges. Some commercial operations already have special water use rates established, like commercial laundries, but other users need additional tools to reflect accurately what they discharge to City sewers.

Section 5.A.4 Breweries and water-based food product manufacturing (such as a local pickling plant) are the biggest users of virtual product meter calculations.

Section 5.B. Charge meters measure sewer usage directly. Flow measurements in cubic feet are converted into applicable ccf usage rates and billed accordingly.

Program Fees and Credits

Section 7.A. Most commercial ratepayers are on a monthly billing cycle. Some are on a quarterly billing cycle. For FY 13/14 the rates of Sub-Meter Program fees were \$24.20 for the Water Bureau portion and \$29.09 for the BES portion of the fee