

BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP
d/b/a BLACK HILLS ENERGY
105 South Victoria
Pueblo, Colorado 81003

Colo. PUC No. 8
First Revised Sheet No. R22
Cancels Original Sheet No. R22

**RULES AND REGULATIONS
ELECTRIC**

SECTION 12 - METERS (CONTINUED)

5. Meter sockets or similar meter mounting devices must be securely fastened to the wall and so mounted that the meter will be centered between four feet six inches and five feet six inches above the floor or ground. It is the customer's responsibility to maintain this condition.

6. When two or more meters are served from a single service entrance, all meters shall be grouped in a manner specified by the Company.

7. On all installations of two (2) or more meters, each meter location shall be legibly and permanently marked by the applicant/customer to indicate at all times the room, apartment, portion of a building, or special use supplied therefrom.

8. Whenever the entrance wiring has to be replaced or changed for any reason other than emergency restoration of service, indoor meters shall at that time be brought to an outdoor location in compliance with the requirements of this section.

9. All service shall be metered on secondary side of transformers unless otherwise specified in the applicable rate schedule. If a rate schedule specifies that service shall be metered on one side, either primary or secondary, of a transformer, the Company, at its option, may install the meter on the other side. In such an instance, an adjustment for losses will be made in accordance with the provisions of the special terms and conditions listed in the applicable rate schedule.

10. **Accuracy:** The Company will exercise reasonable means to determine and maintain the general accuracy of all electric meters in use. All meters will be tested for accuracy of registration according to the following procedures:

First, all meters will be tested for accuracy in compliance with applicable ANSI standards by the manufacturer before leaving factory and prior to delivery to BHE.

Second, upon receipt from the manufacturer and before installation at customer premises, BHE will test a reasonable number of sample meters for accuracy in compliance with applicable ANSI standards.

Third, after such acceptance testing, each meter installed in the BHE service territory will be assigned to a homogenous lot based on the date of purchase and type of meter.

Fourth, after installation, meter performance will be monitored through daily read and meter health reports generated by the AMI system; and, daily and weekly basis "exceptions reporting" through the customer billing system.

Advice Letter No.	Decision or Authority No.	
Signature of Issuing Officer	Issue Date	
Title	Effective Date	

BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP
d/b/a BLACK HILLS ENERGY
105 South Victoria
Pueblo, Colorado 81003

Original
Cancels
Colo. PUC No. 8
Sheet No. R22A
Sheet No. _____

**RULES AND REGULATIONS
ELECTRIC**

SECTION 12 - METERS (CONTINUED)

Fifth, each calendar year, a random sample of meters will be drawn from each homogeneous lot and BHE will "credit" towards the random sample those meters returned from service and tested in compliance with the pertinent part of Rule 3304(d) which reads "Every service meter must be tested and adjusted, either before installation or no later than 60 days after installation, to ensure that it registers accurately and conforms to the requirements of rule 3302." Randomly selected meters that are inaccessible or physically damaged prior to testing will be excluded from the statistical analysis. The random sampling will conform to published standards for testing (ANSI C12.1-2008) and for sampling (ANSI/ASQ Z1.9-2008, Tables A-1, A-2, E-2, and B-3). Each sample meter will be removed from Customer's meter socket and bench tested in Black Hills' in-house meter shop. Each sample meter will be tested for accuracy at full load ("FL") and at light load ("LL"); and, the test results of these will be averaged using the formula $[FL + LL]/2$ for a final accuracy measurement. The meter test reference standard will be calibrated annually and shall have the accuracy of $\pm 0.05\%$. Should a meter lot fail twice within 5 consecutive test years (the "2-in-5" rule), the Company will employ a tightened inspection or create sub-lots. Lots that fail tightened inspection the second following year will be retired from service. Any sample meter failing the accuracy test by 0.5% will be retired from service. BHE's electric meter random sampling program will use a value of 2.5 for the Acceptable Quality Level ("AQL"). An affiliate of BHE, Black Hills Power, Inc., located in South Dakota, will operate and manage BHE's electric meter random sampling program.

Sixth, annual calendar-year reports shall be provided to Staff only (April 1 of each year beginning 2013) showing all test results for each homogeneous lot.

Seventh, at the end of three years, or earlier if warranted, BHE may file a revised sampling program, if modifications to this approach are justified or necessary.

The statistical sampling program conforms to the guidelines provided by ANSI and Tables for Inspection by Variables for Percent Non Conforming (ANSI/ASQ Z1.2008).

All meters tested in the random sample, and all meters tested according to Section 12.13, will be tested at both full load ("FL") and light load ("LL") utilizing a test reference standard of 0.05% and the average percentage registration is calculated as $(FL + LL)/2$ in accordance with Method 2 of ANSI C12.1-2008 Section 5.1.5.2. Meters will be considered accurate for billing purposes if they register within $\pm 2\%$ under test conditions in accordance with ANSI C12.1-2008 Section 5.1.2.2 and Commission Rule 3302.

Advice Letter No.	Decision or Authority No.	
Signature of Issuing Officer	Issue Date	
Title	Effective Date	

BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP
d/b/a BLACK HILLS ENERGY
105 South Victoria
Pueblo, Colorado 81003

Colo. PUC No. 8
First Revised Sheet No. R23
Cancels Original Sheet No. R23

RULES AND REGULATIONS
ELECTRIC

SECTION 12 - METERS (CONTINUED)

11. Testing Equipment: The Company will provide such testing apparatus and equipment as may be necessary to comply with the rules and regulations of the Public Utilities Commission of the State of Colorado and the provisions thereof. Equipment to be used as reference or test standards will be certified annually by an outside vendor and calibrated with an instrument that is traceable to the National Institute of Standards and Technology. Meter test equipment will be kept in a temperature stable environment. Current Certificate of Calibration and Testing documents will remain on file in the Company's in-house meter shop.

12. Testing Routine Schedules: The Company will test its single and polyphase electronic metering devices according to a random sampling method described in Section 12.10

Advice Letter No.	Decision or Authority No.	
Signature of Issuing Officer	Issue Date	
Title	Effective Date	

BLACK HILLS/COLORADO ELECTRIC UTILITY COMPANY, LP
d/b/a BLACK HILLS ENERGY
105 South Victoria
Pueblo, Colorado 81003

Colo. PUC No. 8
First Revised Sheet No. R24
Cancels Original Sheet No. R24

RULES AND REGULATIONS
ELECTRIC

SECTION 12 - METERS (CONTINUED)

13. Other Tests: The Company at any time, upon written request of the customer, shall test the customer's meter as soon as practicable after receipt of such request. The result of the test will be the basis for settlement of any dispute as to the accuracy of the meter. Such request shall not constitute a reason for withholding payment of bills when due. The test shall be performed at no charge to the customer with the following exception: when the meter has been tested within the twelve month period prior to the request and the test shows the average error of the meter, as defined below in Section 12.15.B., to be less than the limits set forth above in Section 12.10., the test shall be at the customer's expense. The customer shall have the right to require the Company to conduct the test in the presence of the customer or his/her authorized agent. Authorized agent includes a representative of the Colorado Public Utilities Commission as provided below in Section 12.14.A.

The Company may at any time, at its expense, test any of its meters. If inaccuracies exceeding the limits set forth above in Section 12.10. are detected, adjustments and corrections will be made according to Section 12.15.

14. Written Application to the Commission

A. Upon written application to the Commission by the customer, the Commission will send a trained employee to witness the test of any service meter as performed by the Company. The application for the service shall be accompanied by a remittance of the amount fixed below as the fee for the service. If the meter is found to be fast beyond the limits prescribed below in Section 15, the Company shall reimburse this fee to the customer. The schedule of fees for this service shall be as follows:

1. For continuous current and single-phase meters operating at 480 volts or less, up to and including 200 amperes rated capacity of meter element, each \$50.00
2. For single-phase meters above 480 volts and for polyphase meters with or without instrument transformers, each \$50.00

Advice Letter No.	Decision or Authority No.	
Signature of Issuing Officer	Issue Date	
Title	Effective Date	