

**STATE OF IOWA
DEPARTMENT OF COMMERCE
BEFORE THE IOWA UTILITIES BOARD**

IN RE:

**REQUEST FOR APPROVAL OF
TARIFFS THAT ESTABLISH MINIMUM
SAFETY STANDARDS FOR FARM
TAPS AS A CONDITION OF SERVICE
AND CREATION OF A MANDATORY
TESTING PROGRAM; UTILITY
REPLACEMENT AND OWNERSHIP OF
CUSTOMER-OWNED NATURAL GAS
SERVICE LINES; AUTHORIZATION
FOR RECOVERY OF REPLACEMENT
CAPITAL COSTS; AND REQUEST FOR
AN ACCOUNTING ORDER TO DEFER
TESTING COSTS UNTIL THE
COMPANY'S NEXT GENERAL RATE
CASE**

DOCKET NO. _____

REQUEST FOR APPROVAL OF TARIFF AND OTHER RELIEF

I. Background

A "farm tap" is an outlet off an interstate pipeline, consisting of a riser and valve. The interstate pipeline also normally owns above ground assets above the riser, including several pressure regulators to reduce high pipeline pressure to a lower distribution pressure, and a measurement meter. The end use customer, often the landowner, normally owns all assets downstream of the pipeline tap assets, including a device to inject odorant (mercaptan) into the natural gas stream, and the fuel line to the premise or facilities where another regulator reduces the pressure and the natural gas is consumed.



Farm taps were often granted by interstate pipelines to land owners in return for an easement prior to construction of the pipeline.

The uses of natural gas flowing through farm taps vary, including space heating of homes and other buildings, grain drying, fuel for irrigation engines, heating of poultry and farm animal enclosures, and other purposes.

Black Hills Energy (hereinafter "BHE," "Black Hills," or "the Company") normally owns no assets at the site of farm taps, but does provide services to Northern Natural Gas pursuant to a 1987 farm tap services agreement. The terms of that agreement are summarized below.

In addition to the service obligations in the 1987 agreement, BHE's responsibilities related to farm tap service vary by state, depending on the safety standards and regulatory rules. These responsibilities are described below.

II. Origin of Farm Taps

Peoples Natural Gas, a legacy or predecessor operator of BHE's operations in Iowa, was at one time a division of InterNorth, responsible for distribution services from Texas to Minnesota. Northern Natural Gas was InterNorth's interstate pipeline operator. The distribution and transmission functions of InterNorth were segregated by FERC Order 636. In 1987, Peoples Natural Gas and Northern Natural Gas executed a Farm Tap Services Agreement that moved the sales function for NNG's farm taps to PNG (and

subsequently to BHE). Although other utilities in Iowa serve a small number of farm taps, BHE serves the vast majority of farm taps in Iowa.

III. Farm Tap Services Agreement

On April 1, 1987, Northern Natural Gas Company and Peoples Natural Gas Company ("PNG") executed an agreement which obligated PNG to provide the following services: (1) respond to farm tap gas leaks; (2) respond as a third party contractor to customer needs related to appliance purchase or service, fuel line or irrigation equipment, sales of materials and consultation on installation and repair of customer facilities; (3) service farm tap odorizers and check delivery pressure; (4) record meter readings, bill customer and collect accounts; (5) lock or read farm tap customer meters at NNG's request; (6) respond to customer requests for appliance relights; (7) total, report and account to NNG for total volumes delivered; (8) initiate requests for new farm tap sales facilities and revisions, and for terminations and removals; and (9) comply with all state regulations. The agreement terminates on May 31, 2017.

In 1987, PNG served 7,500 residential, small volume, irrigation and crop dryer farm tap customers and right-of-way grantor customers across the NNG system. BHE now serves approximately 1,558 farm tap customers in Iowa.

IV. Changes in Safety Standards Changed BHE's Service Requirements

Safety standards have changed in Iowa since the NNG-PNG agreement was executed. In 2007, IUB Staff issued an Advisory on Farm Tap odorometer tests, concluding that

testing 10% of the taps annually did not meet the definition of “periodic” as was intended by PHMSA Sec. 192.625. In 2008, BHE management agreed:

- BHE would continue to perform odorometer tests on 10 percent of farm tap customers annually;
- BHE would use best efforts to perform, on 20 percent of farm tap customer fuel lines annually, a partial leak survey on the first 100 yards from any building or riser toward the tap;
- BHE would add two staff positions to perform this work;
- When conducting a partial leak survey at each farm tap, a “best effort” shall be made in obtaining an odorometer test, and literature concerning customer fuel line responsibilities and safety would be left with or for the customer;
- Whether a leak is found or not on the customer fuel line, the technician will leave a note describing the work that was completed along with what was found at the location and a suggested remedy;
- Each partial leak survey completed on a farm tap customer fuel line shall be recorded on an “Iowa Farm Tap Customer Fuel Line Partial Leak Survey” Form; and
- Odorometer test results shall be analyzed annually by local supervision, identifying any odorization trends of farm tap customer fuel lines.

This process change included customer appointments scheduled prior to the leak survey and odorometer tests to determine which buildings have natural gas; where lines

run; whether the customer knows the age, size or type of line; whether there have been any changes since the line was installed; and whether the customer has suspicions about the quality of their fuel line. The changes also resulted in additional documents being left with the customer, including an inspection report, fuel line safety information, and hazardous condition letter when appropriate. BHE agreed to summarize the results of these tests and problems corrected in an annual report to IUB Safety Staff. BHE has performed these tests since 2008. After seven years of testing, BHE management has concluded there are no available records on customer owned lines to establish the age of pipe or material, the type of material the fuel lines are made of, the location of or maps of customer owned fuel lines, the maximum allowable operating pressure of customer owned fuel lines, cathodic protection records, repair or damage records, maintenance records, or extension or changes to the fuel lines. In addition, BHE management estimates over 90 percent of the lines are not locatable for excavation safety due to lack of tracer wires, and almost all of current farm tap customers have very limited knowledge about these lines. BHE's odorometer testing has confirmed that odorization of gas is evident. BHE management believes leak surveys have value and can identify potential hazards, but Company technicians do not know where to survey when a line is not locatable. Most importantly, leaks have been found on pipe materials that did not meet codes or standards.

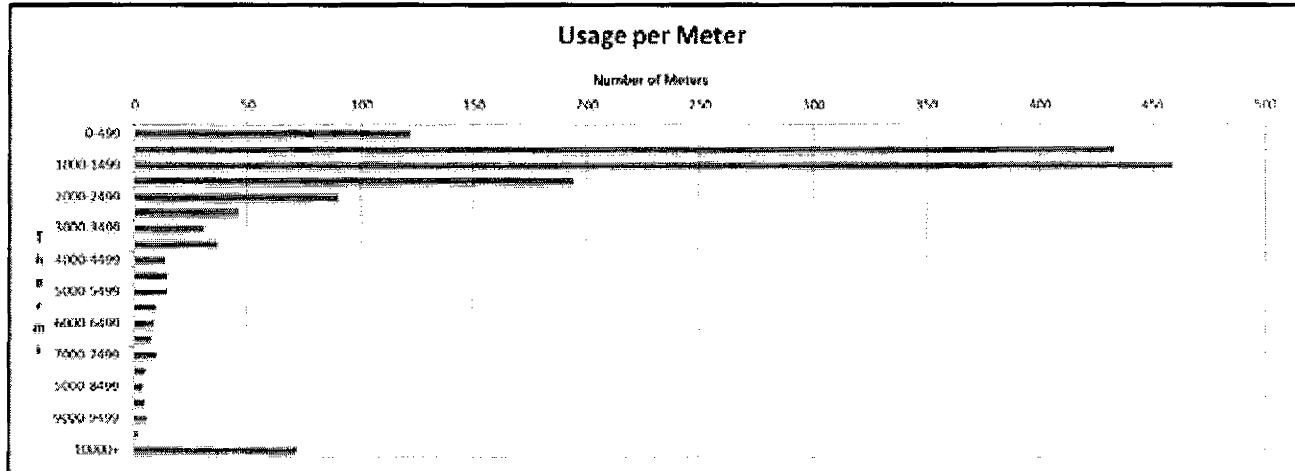
V. Black Hills Iowa Farm Taps

The table below shows the number of farm tap customers at year-end 2012-14 with associated annual natural gas usage and margin revenue:

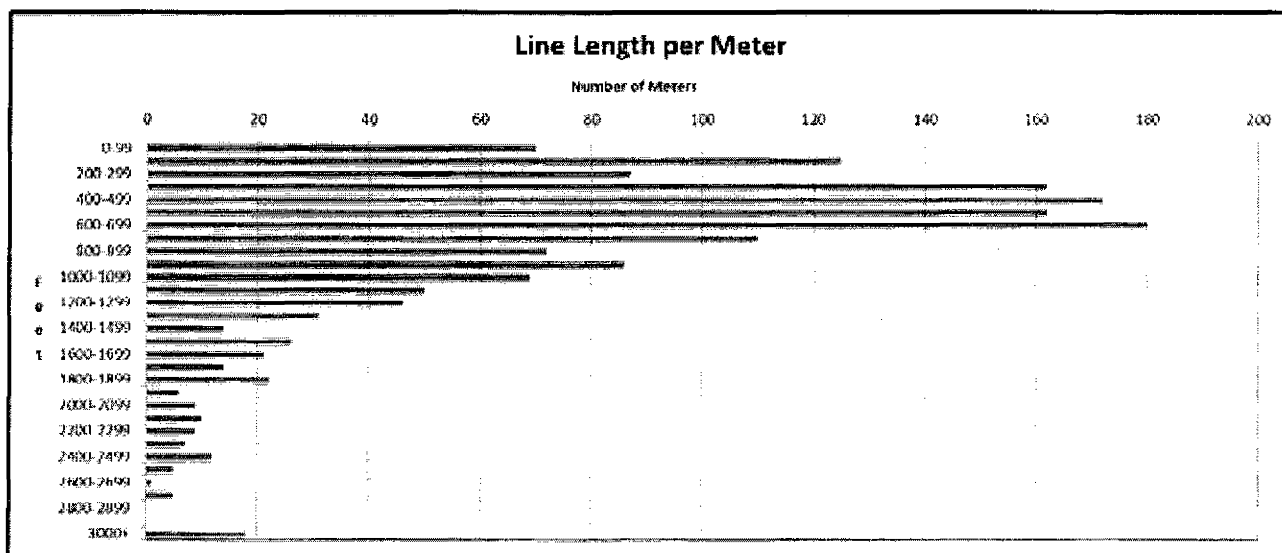
	2012	2013	2014
Year-end Customers	1,546	1,549	1,558
Volumes (Actual, Th)	5,002,579	7,159,054	6,526,595
Margin Revenue (\$000s)	\$718,079	\$867,614	\$871,698

All of these customers are sales customers; no farm tap customers receive transportation service. The annual usage for these customers varies from four (4) to over 600,000 Therms. Most of these customers use natural gas service for space heating, and some take natural gas for grain drying and other commercial uses.

The chart below shows the frequency distribution for customer usage per meter:



Customer owned fuel lines range in length from a few yards to over a mile. The chart below shows a frequency distribution for line lengths:



BHE's farm tap customers are spread across the state in locations that mirror the location of NNG's lines. Exhibit 1 provides a map of the NNG pipeline system in the states of Iowa, Nebraska and Kansas showing the location of BHE farm tap customers.

BHE's farm tap customers do not have the same conditions of service or rights and responsibilities as town plant customers. For example, Black Hills tariff Sheets 30-33 address conditions under which service can be refused or discontinued, including nonpayment of bills, dangerous conditions found on a customer's premises, misuse of service, reselling natural gas, noncompliance, fraud, tampering with Company property, etc. Since BHE does not own property at farm tap locations, the Company cannot

always gain access to inspect facilities or perform required safety testing¹. The location and condition of customer owned fuel lines is usually unknown, creating a potential hazard for Black Hills employees, customers and the general public.

BHE's farm tap leak testing process differs from its town plant customers. BHE performs odorometer and leak survey testing on all farm taps at least every five years; town plant customers do not have this requirement. Despite the testing, the lack of tracer wires on most customer owned fuel lines makes it difficult to locate and inspect these lines, which are made of unknown materials, have no safety records have not, in most cases, met any current material code or standard.

Farm taps present unique challenges and are therefore often difficult to serve.

Examples of these challenges include rural locations that impact response times and lack of technical support, unknown fuel line location and line marking challenges, unknown fuel line construction materials and unknown safety risks, tap locations in road ditches or farm fields, and summer/winter access difficulties.

As part of this application, Black Hills seeks to treat farm tap customers the same as all other BHE utility customers.

¹ Occasionally, farm tap customers refuse to allow BHE technicians to enter their property to perform required testing. BHE cannot currently cite a tariff or regulation that requires access or safety testing as a condition of service.

VI. Issues

Black Hills management believes now is the time to address and resolve the following issues related to farm taps:

- Different safety standards exist for town plant and farm tap customers;
- Customer owned fuel lines often have unknown ages and condition, and cannot always be located with traditional tools due to lack of tracer wires;
- Iowa ONE CALL does not represent this type of underground infrastructure (no one is notified to locate this kind of line);
- Lack of known material location and construction standards creates risk for BHE employees, customers, third party excavators and the general public;
- The original right-of-way grantors who granted an easement to NNG many years ago have likely passed on, and land parcels have in some cases been subdivided, so customer owned fuel lines sometimes pass through property that is not owned by BHE's customer, creating access issues;
- Changes to Federal and State safety inspection standards have increased the work and cost to serve these customers;
- Black Hills Energy believes abandonment of farm taps and conversion to propane is not appropriate. Farm tap customers have contributed to rate base for decades through general service rates. The loss of these customers and lower sales volumes implies spreading remaining costs

over a smaller pool of customers, which would result in higher rates for remaining ratepayers in the next rate case².

VII. Black Hills Proposals

BHE has considered solutions to the issues described above, including a Minnesota line replacement program established in the early 1990s. BHE management believes it is critically important assure all customer owned fuel lines meet applicable safety standards. BHE proposes the following plan and new tariff sheets attached as Exhibit 2 in both redline and clean form:

- Section 1 of the proposed tariff establishes conditions of service that require all farm tap customer owned fuel lines must comply with state and federal safety standards, the Conditions for New Service - Rural and Agricultural Service to Right-of-Way Grantors found on Sheet 59, and a mandatory testing program to establish a maximum allowable operating pressure. BHE would not be authorized to serve farm tap customers unless these standards and conditions are met, and the lines pass inspection tests every five years.
- Section 2 mandates the safety testing that Black Hills currently performs on farm taps, as agreed to with IUB Staff in 2008.
- Section 3 authorizes a line replacement program for those fuel lines that do not pass the safety test mandated in Section 2.

² Black Hills estimates the loss of approximately 1,558 Iowa farm tap customers would result in \$871,000 of lost margin, based on 2014 data. If this lost revenue was allocated over all General Service customers, this would equate to a \$0.48 per month increase for the class.

- Section 4 establishes both Company and Customer liability for Customer owned yard line or fuel line.

BHE has considered an optional line replacement program, where farm tap customers would have the option to hire approved third party contractors to replace the line. This approach is similar to the Minnesota replacement program authorized in the early 1990s, where landowners continue to own the fuel lines and the utility or other contractors may rebuild the lines. BHE is concerned that this approach merely prolongs the safety issues, so the same concerns noted above will exist in the future. BHE believes the better solution is for the Company to replace and own lines that fail MAOP tests. Because of public safety risks associated with this service arrangement, BHE will strongly consider discontinuing service to tap customers unless the Company can test and own the service lines and establish and maintain maintenance and construction records to better ensure public safety.

BHE estimates the annual cost to perform pressure tests on approximately 275 farm taps annually will be about \$140,000³. BHE proposes to hold these costs in a regulatory asset account until the company's next rate case, at which time it will request inclusion of the costs in the test year cost of service.

³ \$500.00 per inspection. The estimate includes the costs of two technicians and a vehicle for four hours – one hour to drive to the premise, two hours to perform tests, and one hour to return from the appointment.

BHE proposes and requests approval to include line replacement capital costs as an additional type of eligible investment under the current investment tracker rule. This approach would allow BHE to earn a return on and return of these capital investments until the next case, reducing regulatory lag on the investments. BHE estimates the cost of replacing all these lines is currently about \$12 million, assuming 1.2 million feet of serve line at a replacement cost of \$10 per lineal foot.

In the Company's next rate case, BHE proposes to include these investments in rate base and assign approximately one half of the associated revenue requirement to the general system, and the remaining costs would be assigned to the farm tap customers whose lines are replaced. BHE proposes to segregate farm tap customers in a separate class and allocate the capital costs of the line replacements as follows:

The plant related to the first 1000 feet of service line replaced would be allocated to all customer classes, except Super Large Volume, using the general plant allocation factor. Black Hills estimates the monthly customer impact on General Service customers will be about \$.03 for the first year of replacements, assuming \$1 million of replacement capital.

The remaining plant would be borne by the farm tap customers that have lines replaced, and their customer charges would be increased to reflect the length of service line replaced. Black Hills proposes to increase farm tap customer charges slightly for every 500' of service line replaced. For example, BHE estimates tap customers with a 1500' line would experience a modest \$.25 per month higher customer charge. Customers

with longer lines would have a higher customer charge, so the customers with longest service lines would contribute more to retain service.

BHE has attempted to balance interests with this proposal. Some of the replacement cost will be borne by the general system customers, and this is appropriate, since farm tap customers have contributed to statewide capital additions for many years. Farm tap customers will bear a portion of the costs if their line replacement is over 1000 feet in length. Black Hills also shares a portion of the costs until the next rate case, because the return allowed on investment tracker assets is less than the Company's weighted average cost of capital.

VIII. Alternatives to the BHE Proposal

BHE has considered numerous alternatives to the proposal, including terminating or extending the NNG contract, and a testing program with optional line replacements. Terminating the NNG agreement would reduce safety and rural response time challenges, reduce litigation risks and simplify rural staffing, but it would result in a loss of about \$871,000 in annual margin, accelerate the need for a rate case, and result in higher rates for all customers. Most importantly, this action would probably result in a loss of natural gas service for approximately 1,558 rural customers. BHE management believes this is not an acceptable outcome⁴. Extending the NNG farm tap services contract would allow BHE to continue to serve these customers, but it would not

⁴ Black Hills estimates the loss of approximately 1,558 Iowa farm tap customers would result in \$871,000 of lost margin, based on 2014 data. If this lost revenue was allocated over all General Service customers, this would equate to a \$0.48 per month increase for the class.

address the safety risks of customer owned lines or the increasing costs related to changing safety standards. BHE believes the most important issue here is improving safety of these lines, so other alternatives provide a superior solution. BHE has also considered the creation of farm tap inspection and safety standards with continued customer ownership of the service lines. This approach would reduce some safety and litigation risks, and the costs of line replacements would continue to be borne by the landowner. However, under this approach, BHE would still not know the condition of the line after replacement. After significant analysis, BHE has concluded the best solution is the proposal described herein.

IX. NNG Farm Tap Abandonments

Northern Natural Gas informed BHE in 2015 that it would abandon its "A Line" through Kansas, Nebraska and Iowa and upgrade its "B, C and D Lines." As a result of this capital improvement plan, 188 customers in three states (135 in Iowa, 41 in Nebraska and 10 in Kansas) were scheduled to lose farm taps, unless BHE could arrange to serve the customers off existing taps or BHE-owned facilities. In late October of 2015, NNG informed BHE that their capital replacement plan has been delayed and no abandonments are scheduled at this time.

X. Conclusion

BHE respectfully requests that the Board:

- Approve tariff to establish rights and responsibilities of farm tap customers;

- Establish a safety testing program;
- Establish a line replacement program for lines that do not meet safety standards;
- Authorize inclusion of the capital replacement investments as eligible investments in the Company's investment tracker mechanism;
- Issue an accounting order to allow recovery of testing costs in the Company's next rate case;
- Authorize inclusion of the capital investments in rate base in the Company's next rate case; and
- Issue any waivers from IUB rules the Board deems appropriate.

Dated this 24th day of November, 2015.

Respectfully submitted,

**Black Hills/Iowa Gas Utility Company, LLC
d/b/a Black Hills Energy**

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