

**NEBRASKA PSC DOCKET NO. NG-0061**

**ADVISORY REPORT**

**PREPARED BY**



**GDS Associates, Inc.**  
Engineers and Consultants

**June 29, 2010**

**IN THE MATER OF BLACK HILLS/NEBRASKA GAS )  
UTILITY COMPANY, LLC. D/B/A BLACK HILLS )  
ENERGY, OMAHA, SEEKING A GENERAL RATE ) APPLICATION NO. NG -0061  
INCREASE FOR BLACK HILLS ENERGY'S RATE )  
AREAS ONE, TWO, AND THREE (CONSOLIDATED) )**

**TABLE OF CONTENTS**

<b>I.</b>	<b>Rate Base</b> .....	<b>2</b>
A.	Plant in Service .....	2
B.	Accumulated Depreciation .....	6
C.	Construction Work in Progress .....	6
D.	Accumulated Deferred Income Taxes .....	7
E.	Cash Working Capital.....	8
F.	Gas Storage Inventory.....	12
<b>II.</b>	<b>Weather Normalization</b> .....	<b>13</b>
<b>III.</b>	<b>Operating expenses</b> .....	<b>15</b>
A.	Payroll.....	15
B.	Variable Compensation .....	21
C.	Relocation and Severance Costs.....	22
D.	Rebranding Costs .....	23
E.	Rate Case Expenses .....	24
<b>IV.</b>	<b>Affiliate transactions</b> .....	<b>25</b>
<b>V.</b>	<b>Depreciation expense</b> .....	<b>28</b>
<b>VI.</b>	<b>Property taxes</b> .....	<b>28</b>
<b>VII.</b>	<b>Income taxes</b> .....	<b>30</b>
<b>VIII.</b>	<b>Cost of capital</b> .....	<b>31</b>
<b>IX.</b>	<b>Cost of service study</b> .....	<b>32</b>
A.	Classification of Mains .....	33
B.	Allocation of Compressor Station .....	35
C.	Allocation of Uncollectibles .....	35
D.	Allocation of Administrative and General Expenses .....	36
E.	Allocation of Other Revenue .....	37
F.	Distribution of Revenue Increase .....	38
<b>X.</b>	<b>Rate design</b> .....	<b>40</b>
A.	Customer Charge.....	40
B.	Declining Block Commodity Charge .....	42

**IN THE MATER OF BLACK HILLS/NEBRASKA GAS )  
UTILITY COMPANY, LLC. D/B/A BLACK HILLS )  
ENERGY, OMAHA, SEEKING A GENERAL RATE ) APPLICATION NO. NG -0061  
INCREASE FOR BLACK HILLS ENERGY'S RATE )  
AREAS ONE, TWO, AND THREE (CONSOLIDATED) )**

### **ADVISORY REPORT**

Black Hills Nebraska Gas Utility Company, LLC (dba Black Hills Energy) is a subsidiary of Black Hills Utility Holdings. Black Hills Corporation is the parent corporation of Black Hills Utility Holdings. Black Hills Energy filed an application for a general rate increase on December 1, 2009 using a July 31, 2009 test year and presented a State of Nebraska and a Nebraska jurisdictional revenue requirement. The Company's filing reflects a State of Nebraska revenue deficiency of \$11,120,876 and a Nebraska jurisdictional revenue deficiency of \$12,091,329.<sup>1</sup> Black Hills' requested overall rate of return is 9.84% based on a return on equity of 11.5% and an 8.04% cost of debt. All amounts discussed in this report are Total Nebraska amounts unless otherwise stated.

The Company's base year is the twelve months ended July 31, 2009. Black Hills proposes two adjustments its base year rate base to include capital projected additions after July 31, 2009 and to adjust accumulated depreciation to reflect its adjusted plant in service balances. The Company proposes eleven adjustments to its base year revenue requirement. These include weather normalization, depreciation annualization, various payroll adjustments, property tax, rate case expense, advertising, fees and dues, and revenue synchronization. Black Hills proposed no adjustments to remove non-recurring revenues or expenses.

---

<sup>1</sup> Exhibit BHE-11

## I. RATE BASE

### A. *Plant in Service*

***Black Hills' Position:*** Company witness Petersen states that two adjustments were made to the per book plant balances: capital additions and accumulated depreciation. Black Hills' per book plant in service at July 31, 2009 was \$268 million, excluding work in progress. The Company's "per book" plant includes allocations of plant from the Black Hills meter shop, Black Hills Utility Holding Company, and Black Hills Service Company.<sup>2</sup> The Company's proposed plant in service is \$277 million, excluding work in progress. This balance includes pro forma capital additions. The capital additions adjustment does not include any CWIP. The capital additions are "integrity projects which are completed and in service today or will be completed within one year of the test period."<sup>3</sup>

Mr. Nordell testifies that "the capital additions adjustment does not include capital expenditure projects devoted primarily to 'growth.'"<sup>4</sup> Only integrity projects are included. These are defined as "line relocations, line replacements, and other non-revenue producing investments required to maintain the overall natural gas distribution system."<sup>5</sup> Included in the adjustment are "government mandated line relocations, system integrity capacity improvements, replacements of tools and equipment, and some non-revenue producing capital additions."<sup>6</sup> The Company states that it has made all necessary adjustments to depreciation expense and accumulated depreciation and that no adjustments are required to revenues, billing determinants,

---

<sup>2</sup> Id.

<sup>3</sup> Exhibit BHE - 24 at 7.

<sup>4</sup> Exhibit BHE-23, page 6

<sup>5</sup> Id.

<sup>6</sup> Id.

or accumulated deferred income taxes (ADIT) because none of the capital additions are revenue producing.

In its rebuttal testimony, the Company reduced its capital additions adjustment because some projects “no longer fall within the Commission’s criteria for inclusion for recovery.”<sup>7</sup> The Company reduced its capital addition adjustment by approximately \$664,000 on a total Nebraska basis. Black Hills’ revised capital additions adjustment is \$8,320,904.

***Public Advocate’s Position:*** Mr. Arndt states that the Company has included “\$3,185,128 of construction work in progress and \$9,311,774 of forecasted 2010 plant additions in rate base.”<sup>8</sup> The Public Advocate recommends that none of the post test year capital additions be included in rate base because they were not used and useful during the test year and because Black Hills did not make the other post test year adjustments necessary for a proper matching of investment, revenues, and expenses. He points out that customer contributed capital and accumulated depreciation are increasing faster than plant in service resulting in a declining rate base. Reaching beyond the end of the test year for plant in service should not be done unless the balances for accumulated depreciation, customer contributed capital, accumulated deferred income taxes, etc. are also updated to the same point in time.<sup>9</sup>

Mr. Arndt also recommends the adoption of an average rate base. He argues that a year-end rate base “results in a mismatch of test year investment, revenues, and expenses.”<sup>10</sup> Mr. Arndt states that if a year-end rate base is used, adjustments to revenue and expenses are required to achieve a proper matching and that these adjustments are “complex and speculative.”<sup>11</sup>

---

<sup>7</sup> Exhibit BHE-24, page 14

<sup>8</sup> Exhibit PA-101, page 19

<sup>9</sup> Hearing Transcript page 380

<sup>10</sup> Exhibit PA-101 at 15

<sup>11</sup> Id

***Analysis and Recommendation:*** We recommend the use of a year-end rate base. The Public Advocate has not offered any data to show that a proper matching does not exist.

Nebraska's regulatory statute requires that rate base include only utility property that is used and useful in providing utility service.<sup>12</sup> The law also allows the Commission to include in rate base as utility property construction projects that "will be commenced and completed in one year or less."<sup>13</sup>

The Public Advocate's discussion regarding the inclusion of construction work in progress and forecasted plant additions focuses on the requirement that all attendant impacts be made. The Company insists in its rebuttal testimony that it has made all the necessary attendant impact adjustments. The Company states that none of the projects will change billing determinants or revenues. The Company also states that there will not be significant operating and maintenance cost increases or decreases and that it has not attempted to adjust for a possible increase in property taxes. The Company states that it has made adjustments to depreciation expense and accumulated depreciation. And, finally, the Company states that it has not made any adjustments to accumulated deferred income taxes.

Per the response to the Public Advocate's data request PA-290, the Company's plant in service balance was \$275,165,142 (excluding work in progress) at December 31, 2009. Since the end of the test year, plant in service has increased by approximately \$7.2 million compared to the Company's proposed \$8,320,904.

Black Hills adjusted depreciation expense and accumulated depreciation, but made no corresponding adjustment to accumulated deferred income taxes because "To precisely calculate

---

<sup>12</sup> § 66-1825(6)

<sup>13</sup> § 66-1817(1)

the impact on deferred taxes, a calculation would have to be made identifying all projects by depreciable class for book and tax purposes.”<sup>14</sup> Normally, an adjustment to depreciation expense will impact the difference between book and tax depreciation that should be reflected in ADIT. These adjustments are routinely made in rate cases and do not require precision. The Company’s response to the Public Advocate’s data request PA-290 shows an ADIT balance at December 31, 2009 of \$7.8 million compared to \$5.5 million at July 31, 2009.

As noted above, Black Hills’ position is that no adjustment is necessary to revenues or billing determinants. We are not convinced this is the case. According to the response to PA-290, the increase in the Company’s investment in services, meters and regulators increased by approximately \$3.2 million, which is 45 percent of the total increase in plant. Customer deposits have increased by 7% since July 31, 2009, which indicates that the Company is adding customers.

While the law allows inclusion of estimated construction that will be completed within 12 months of the end of the base period, the Commission has discretion to include what it deems is reasonable. The Company has made every effort to provide the information the Commission has asked for in previous cases. However, the Company did not make all of the necessary attendant impact adjustments because it did not adjust ADIT and the balance of ADIT increased by approximately \$2.4 million between July 31 and December 31, 2010. The increase in the Company’s investment in services, meters, and regulators as well as the increase in customer deposits also indicate that the Company has added customers since July 31.

If the Company demonstrates in its comments to this report that the additional investment in services, meters, and regulators since July 31, 2009 has not increased billing determinants and

---

<sup>14</sup> BHE-18 at 36

revenues, we recommend that the December 31, 2009 plant in service balance, excluding work in progress, shown in the response to data request PA-290 be included in Black Hills' rate base. In the alternative, we recommend that plant in service be increased by \$3.9 million, which excludes the increases in plant accounts 380 through 385 (services, meters, regulators) subsequent to July 31, 2009.

### ***B. Accumulated Depreciation***

***Black Hills' Position:*** Black Hills made an adjustment to accumulated depreciation to reflect one year's depreciation for its proposed capital additions.<sup>15</sup> The adjustment increases base year accumulated depreciation by \$836,736, a full year's depreciation on forecasted plant additions and work in progress.

***Public Advocate's Position:*** The Public Advocate recommends an average accumulated depreciation balance consistent with its recommendation that the average plant in service balance be used.

***Analysis and Recommendation:*** We recommend using the December 31, 2009 per book plant in service. To be consistent, we recommend using the accumulated depreciation balance as well. The balance at December 31, 2009 was \$118,825,354. This balance may require adjustment subject to the balance of plant in service included in rate base.

### ***C. Construction Work in Progress***

***Black Hills' Position:*** Black Hills proposes to include \$3,512,198 in rate base for construction work in progress (CWIP). This is \$327,070 more than was recorded on its books

---

<sup>15</sup> Exhibit BHE-11 (RB 8- NE Accum Depr & Amort as of July 2009.xls)

and records at the end of the base period.<sup>16</sup> The Company claims that this construction is complete and is now in service.<sup>17</sup>

***Public Advocate's Position:*** The Public Advocate recommends that CWIP not be included in rate base because it “was not used and useful during the test year.”<sup>18</sup> “The Company has failed to identify, quantify and match the attendant impacts associated with its proposed CWIP and forecasted 2010 plant additions adjustments.”<sup>19</sup>

***Analysis and Recommendation:*** CWIP should be excluded from rate base because we recommend including the December 31, 2009 balance of plant in service in rate base. This balance includes all construction that was in progress at the end of the base period according to Black Hills. This recommendation is based on Black Hills' assurances that none of this construction will add customers or increase gas sales.

#### ***D. Accumulated Deferred Income Taxes***

***Public Advocate's Position:*** Black Hills included a credit of \$5.5 million in ADIT, which is significantly less than the \$28.7 million that was deducted from rate base in Aquila's last rate case (Docket NG -0041). The Public Advocate suggests that the difference between these two amounts, approximately \$23 million, should be viewed as an acquisition premium in order to keep ratepayers in approximately the same position they were in before Black Hills acquired Aquila.

***Black Hills' Position:*** Black Hills cites the decision in Docket NG-0060 in which the same issue was raised. In that case, the Commission declined to recognize the loss of the ADIT

---

<sup>16</sup> Confidential response to Public Advocate Data Request No. 290

<sup>17</sup> Black Hills Brief at 74.

<sup>18</sup> Exhibit PA-101 at 20.

<sup>19</sup> Id.

as an acquisition premium. The Company points out that the Public Advocate makes the same arguments in this case that it made in Docket NG-0060.

***Analysis and Recommendation:*** The form of the sale-purchase transaction between Aquila and Black Hills was the result of negotiation between the parties. Black Hills purchased the assets of Aquila. The Commission decided the issue raised by the Public Advocate in Docket No. NG-0060. The same type of transaction occurred in that case and the balance of customer supplied cost-free capital, accumulated deferred income taxes, did not transfer to the new owner under federal income tax law. Per the Commission's decision in NG-0060, the amount of ADIT that should be included in rate base is \$7,829,788, Black Hills' per book balance at December 31, 2009. This balance should be included in rate base in order to match our recommended plant in service and accumulated depreciation, which are both the December 31, 2009 balances.

### ***E. Cash Working Capital***

***Black Hills Position:*** Black Hills relied on a lead-lag study to compute its cash working capital requirement. Mr. Dee provides limited testimony regarding the Company's lead-lag study. He states "[T]he actual computation is explained more fully in the tab labeled 'Working Capital.'"<sup>20</sup>

Cycle 22 customers are large volume transport customers whose usage is either chart-read or telemetered.<sup>21</sup> Meters for all other customers (residential, commercial, industrial) are read using advanced metering reading equipment. The Company computed a revenue lag of 49.7 days for Cycle 22 customers and 41.08 days for all other customers. The revenue lag is composed of three parts: the average service period, the bill processing time, and the collection

---

<sup>20</sup> BHE-21 at 7.

<sup>21</sup> BHE-11, Exhibit V

period. Black Hills used 15.2 days for the average usage period, 3.1 days to issue bills, and 23.1 days to collect payment.

Black Hills used a purchased gas expense lead of 36.55 days. This is composed of an average service period of 15.2 days and an average payment period of 51.75 days. These two values are netted to produce the 36.55 day expense lead. The 51.75 day average payment period was calculated from the first day of the delivery period to the payment date.<sup>22</sup>

The Company proposes an expense lead of 28.2 days for Other O&M expenses (O&M excluding payroll). This expense lead is equal to the average processing and payment lag of 28.2 days. No service period is included because Black Hills “does not segregate out any particular expense whether it’s prepaid or occurs on a monthly, semi-monthly or annual basis.”<sup>23</sup>

***Public Advocate’s Position:*** The Public Advocate questions the validity of the revenue lag for Cycle 22 customers. The Public Advocate specifically questions the validity of the collection lag and the billing processing time. Mr. Arndt points out that the collection lag for the months of September and October 2008, shortly after Black Hills acquired Aquila’s Nebraska gas operations in July of that year, were unusually long. Customers’ payments are due 20 days after bills are issued. The September 2008 collection lag was 33.41 days. The October 2008 collection lag was 33.04 days. In response to the Public Advocate Data Request PA-370, Black Hills provided updated collection lag data. Mr. Arndt recommends using the collection lag for the twelve months ended January 2010 of 21.64 days.

Black Hills’ revenue lag includes 11.27 days to prepare the bills for Cycle 22 customers because their bills are based on daily usage. It takes 2.82 days to prepare the bills for all other

---

<sup>22</sup> Id

<sup>23</sup> BHE-49 (Data Request PA-323)

customers. While the Public Advocate questions the reasonableness of the 11.27 days it takes to prepare the Cycle 22 bills, Mr. Arndt does not provide a reasonable basis for using the 2.82 days used to prepared the non-Cycle 22 bills.

Mr. Arndt recommends that the purchased gas expense lead be increased from 36.55 days to 40.2 days. He takes exception to the Company's 51.75 payment period. Mr. Arndt points out that Black Hills "pays for purchased gas expenses by wire transfer on the 25<sup>th</sup> of each month."<sup>24</sup> This would produce a payment period of 25 days. The purchased gas expense lead is then 40.2 days: the average service period of 15.2 day plus the 25 day payment period.

The Public Advocate points out shortcomings in the Company's expense lead for other O&M expenses. Mr. Arndt recommends excluding prepayments from rate base because the Company's other O&M expense lag does not segregate expenses between prepaid expenses and those paid on a monthly, semi-monthly, or other basis.

***Analysis and Recommendation:*** The first issue raised by the Public Advocate concerns the calculation of the revenue lag. As Mr. Dee points out in his rebuttal testimony, the updated information provided in response to Public Advocate Data Request PA-370 for the twelve months ended January 2010 not only shows the 21.64 day collection period for non-Cycle 22 customers, but it also supports a 2.98 day processing period. Using the twelve months ended January 2010 as Mr. Arndt did, the revenue lag is 40 days when the billing processing period is also updated. Using the twelve months ended December 2009, the revenue lag is 40.33 days. We recommend using the December 2009 revenue lag as it is consistent with our recommendations for plant in service, accumulated depreciation, and accumulated deferred income taxes.

---

<sup>24</sup> Exhibit PA-101 at 27

The next cash working capital issue raised by the Public Advocate focuses the payment period for purchased gas. In his rebuttal testimony, Mr. Dee faults Mr. Arndt's analysis. Mr. Arndt relied on the Company's response to Data Request PA-320 which Mr. Dee admits in his rebuttal testimony is either inaccurate or incomplete. He states "Either Mr. Arndt lacks an understanding of the distinction of gas suppliers and interstate pipelines' transportation of gas supply...or he has chosen to ignore that critical distinction."<sup>25</sup> Yet, Mr. Dee fails to provide concrete support for the Company's 36.55 days. Mr. Arndt's conclusion is reasonable given the information supplied by the Company. We recommend that his 40.2 days be used to calculate Black Hills' cash working capital allowance.

The last issue raised by the Public Advocate is the expense lead for other O&M expenses. Mr. Dee offers rebuttal testimony on this issue, but does not address the specific problem raised by the Public Advocate. Black Hills' expense lead is composed of only the average processing and payment lag of 28.2 days. In other words, there is no service period included because the Company's records are not sufficient to allow that portion of the calculation. Consequently, the 28.2 days used by the Company is understated. Mr. Arndt's recommendation that prepayments be excluded from rate base is his proposed remedy for the Company's understated expense lead. We agree with the Public Advocate and recommend that its recommendation be adopted.

While the issue was not raised by the Public Advocate, we point out that the Company's calculation of payment period is inaccurate. The Company states that the payment period for gas purchases is calculated from the first day of the delivery period to the payment date. The calculation should be from the first day of the delivery period to the day the payment clears the

---

<sup>25</sup> BHE-22 at 27.

bank and the Company no longer has use of the those funds. This applies not only to purchases of gas, but also to operating and maintenance expenses including labor costs.

### ***F. Gas Storage Inventory***

***Black Hills' Position:*** Black Hills includes \$17,979,457 in rate base for gas storage inventory. The amount is a twelve month average of the August 2008 through July 2009 book balances. The monthly balances and the 12 month average calculation were provided by the Company in its electronic workpaper "RB3-NE Gas Storage 12-Mo Avgs July 2008 and 2009.xls."<sup>26</sup> The Company's position, as stated in its brief, seems to be that the Company's balance should be accepted because "it is representative of the value of gas-in-storage."<sup>27</sup>

***Public Advocate's Position:*** The Public Advocate points out that the value of gas in storage declined after the end of Black Hills' base period. In response to the Public Advocate's Data Request PA-309, the Company explained that the lower value after the end of the base period is the result of lower gas prices. The data provided in PA-309 shows that the cost of gas peaked in August 2008 at \$10.29 per Mcf. The cost of gas at December 2009 was \$3.38 per Mcf.

We are unable to find any Black Hills direct testimony that addresses gas in storage. Mr. Dee addresses the Public Advocate's recommendation that a 13 month average be used rather than the Company's 12 month average in his rebuttal testimony. Mr. Dee refers to the order in Docket No. NG-0041 in which the Commission found that a 12 month average was reasonable. However, Mr. Dee did not provide any information regarding details of the issue in that case.

---

<sup>26</sup> Exhibit BHE-11

<sup>27</sup> Black Hills Brief at 61.

Mr. Dee provided no information in his rebuttal as to why a 12 month average is more reasonable given the fact that gas prices have steadily declined since August 2008.

***Analysis and Recommendation:*** The Public Advocate points out that Black Hills has not recognized the lower value of its gas in storage since August 2008 despite the fact that it proposes to include in rate base projected plant additions through July 2011. The rates being set in this case will presumably be in effect for at least two or three years. The purpose of adjusting the historical costs of providing service is to determine the just and reasonable and ongoing cost of providing service. Consistency in approach is fundamental to this process. We recommend using the December 31, 2009 balance for plant in service, accumulated depreciation, and accumulated deferred income taxes. We also recommend using the thirteen month average for gas in storage as recommended by the Public Advocate. However, this thirteen month average should be calculated beginning in December 2008 and ending with December 2009. According to the data provided by Black Hills in response to PA-309, this average is \$12,237,541.

## **II. WEATHER NORMALIZATION**

***Black Hills' Position:*** The Company proposes to adjust test year operating revenue requirements by \$1,026,623 to reflect weather normalized sales revenues. The adjustment is based on a weather normalization analysis performed by Mr. Larry Loos and an analysis of weather, represented as heating degree days, by Dr. Robert Livezey. Mr. Livezey concludes that normal degree days should be computed using 10 years of historical data rather than 30 years, a period that he believes provides an unreliable indicator of weather. Mr. Livezey contends that due to climate change, winter season temperatures have been rising for years, and substantial warming has occurred since the 1970s. The Company thoroughly presents Dr. Livezey's

credentials in the meteorological field and states that his conclusions regarding climate change and the appropriate number of years to use for computing normal degree days are consistent with the “scientific community”.

***Public Advocate’s Position:*** The Public Advocate agrees that revenue requirements should reflect sales based on normal weather. However, the Public Advocate rejects the Company’s weather normalization adjustment and analysis that is based on normal degree days computed using a 10-year average. The Public Advocate argues that the Commission has established precedent of accepting weather normalization analyses based on 30 years in prior cases and that revenue requirements in the Company’s previous filing were based on a 30-year weather normalization of sales. The Public Advocate argues that there is no reason to change the method of computing normal degree days from a 30-year basis to a 10-year basis. The Public Advocate stresses that Dr. Livezey is not a utility rate expert and questions why his approach to computing normal degree days was not proposed years ago if climate change was contributing to a significant warming in the winter season. They further question the assertion that Dr. Livezey’s conclusions have, in fact, been accepted in the scientific community as reported by the Company, and why other utilities have not been actively changing their method of computing degree days to a lower number of years. The Public Advocate recommends using 25 years to compute normal degree days.

***Analysis and Recommendation:*** The rate of climate change is a subject of great debate. As a result, it is not surprising that utilities, Black Hills Energy in this instance, are proposing changes to the long-standing and accepted practice of computing normal degree days using 30 years of historical data. The Company, based on Dr. Livezey’s analysis, concludes that a 30-year normal value is an unreliable indicator of weather and that a 10-year normal is most

appropriate.<sup>28</sup> To the contrary, our analysis shows that for the most recent 5-year, 15-year, 20-year and 30-year periods, a rolling 10-year normal does not provide a more accurate estimate of heating degree days for the current year, or following year, than does a rolling 20-year or 30-year rolling average.<sup>29</sup> Furthermore, the volatility in a 10-year normal value across time is greater than that in normal values computed using a higher number of years.

The Public Advocate infers that the Company, in proposing to change its computation of normal degree days from a 30-year basis in its prior rate case to a 10-year basis in this rate case, is essentially mining the historical data to pick a period that allows the Company to maximize its revenue requirement. Based on our analysis, and in efforts to mitigate the possibility of utilities in Nebraska picking and choosing a normalization period basis that best suits their needs, we recommend that the Commission establish a basis of 20 years for computing normal weather. As a result, we recommend that the Company's proposed weather normalization adjustment of \$1,026,623 be revised to reflect a weather normalization analysis of sales that is based on 20 years.

### **III. OPERATING EXPENSES**

#### ***A. Payroll***

***Black Hills' Position:*** The Company proposes four wage and salary adjustments. These include: 1) a payroll annualization adjustment, 2) estimated payroll costs for a new gas control department, 3) a union wage increase, and 4) non-union merit wage increase. These adjustments increase O&M expenses by \$2,260,194, other taxes by \$118,183 and plant in service by \$327,070.

---

<sup>28</sup> Black Hills brief at page 144.

<sup>29</sup> Analysis was based on a comparison of the mean absolute percent error (MAPE) computed for the respective 10-year, 15-year, 20-year and 30-year periods ending 2009.

The Company's Adjustment No. 3 annualizes Nebraska direct and allocable Black Hills Holding Company (Holding Company) payroll "using base payroll by department at September 15, 2009"<sup>30</sup> to compute the annualized amounts. Black Hills Service Company (Service Company) payroll was annualized "based on July 2009 booked payroll expense."<sup>31</sup> This adjustment increases O&M expense by \$1,524,254, payroll taxes by \$76,416, and plant in service by \$220,112.

Black Hills' Adjustment No. 4 increases O&M expenses by \$54,713, payroll taxes by \$3,105, and plant by \$9,282 for a new gas control department. These are the estimated costs for "four new positions in the Gas Control Area that were approved, posted and filled by the end of October 2009."<sup>32</sup>

Company Adjustment No. 5 quantifies the increase in payroll costs of a 3% non-union employee merit increase that was scheduled to become effective March 1, 2010.

Company Adjustment No. 6 recognizes the additional payroll costs related to union wage increases. Mr. Petersen states that these increases are "required per contract."<sup>33</sup> He testifies that per contract, union employees and call center employees were scheduled to receive a 3% wage increase effective January 1, 2010. Union meter shop employees were schedule to receive 3% wage increases at the end of April 2010. In his rebuttal testimony, Mr. Petersen states "The union payroll increase for direct Nebraska union employees and the union increase for call center employees located in Nebraska will become effective in May 2010"<sup>34</sup> and the increase is 2.5%.

---

<sup>30</sup> BHE-17 at 6

<sup>31</sup> Id

<sup>32</sup> BHE-17 at 6

<sup>33</sup> BHE-17 at 7.

<sup>34</sup> BHE-18 at 20.

***Public Advocate's Position:*** The Public Advocate recommends that Adjustment No. 3 be rejected because the Company did not demonstrate that the annualized affiliate payroll costs are representative of future affiliate charges to Nebraska. Mr. Arndt also objects to this adjustment because “the Company has proposed no matching adjustment to recognize revenue growth related to increased customer levels during and after the test year.”<sup>35</sup>

Mr. Arndt offers two reasons for his recommendation that Adjustment No. 4 be rejected. He states that two of the four “new” positions were filled from within Black Hills. He also points out that there are likely to be cost savings as a result of the new Gas Control department that the Company did not recognize in this filing.

The Public Advocate recommends that the non-union merit wage increase that was to become effective in March 2010 be rejected because they are not guaranteed increases and are therefore not known and measurable. In addition, he points out that the Company did not make any matching adjustments to recognize increased revenues due to customer growth after test year end.

Mr. Arndt recommends that the Commission reject Adjustment No. 6 because the union wage increase that was scheduled to become effective in January 2010 was not finalized. And, the projected April 2010 increase for meter shop employees “has not been negotiated and voting on any increase is not expected until April 2010.”<sup>36</sup>

***Analysis and Recommendation:***

Adjustment No. 3 - The Public Advocate correctly points out that the Company did not demonstrate that the payroll periods it used to annualize payroll costs were representative going

---

<sup>35</sup> PA-101 at 37.

<sup>36</sup> Id at 38-39

forward. There is no evidence that the Company reviewed or analyzed the data to determine that it was representative of the future. In his rebuttal testimony, Mr. Petersen responds to Mr. Arndt's point that affiliate payroll costs may not be representative of the future by pointing out that "Mr. Arndt appears to have wrongly assumed that all Black Hills Utility Holding Company ("BHUH") employees are 'shared' by all Black Hills Corporation companies."<sup>37</sup> He states that some Holding Company employees such as meter readers, equipment operators, and warehouse workers work only for and in Nebraska. Mr. Petersen also states that Black Hills "relied heavily" on the fact that the Commission approved a similar adjustment in Docket NG-0041. Mr. Petersen's comments regarding Mr. Arndt's understanding of affiliate payroll is misplaced. Any misunderstanding is the result of the Company's failure to provide the necessary information. It is the Company's responsibility to explain and demonstrate that the methodology used to compute the adjustments is reasonable, that the data utilized is accurate and conforms to the Commission's rules, to demonstrate why the methodology it used is reasonable and any other pertinent facts. With regard to this payroll adjustment, the Company provided no information about the number of employees included in the pay periods that were annualized, how the affiliate payroll costs are allocated, why the allocations for the pay periods that were annualized are reasonable on a going-forward basis just to list some of the pertinent information that was not provided. Past Commission decisions should not be relied on as precedent for the detailed methodology employed to determine a technical adjustment. Simply stating that the adjustment was done the same way is a broad statement that does not address the nuances of the adjustment.

The Company does not provide additional detail or support for this adjustment in its rebuttal testimony. In his rebuttal testimony, Mr. Petersen states that adoption of Mr. Arndt's

---

<sup>37</sup> BHE-18 at 6

recommendation regarding this adjustment “would deprive Black Hills Energy of its current and ongoing payroll costs.”<sup>38</sup> We reiterate that the burden is on the Company to demonstrate that its proposed revenue requirement is just and reasonable and that all adjustments are known and measurable. The Company has not demonstrated that the increases for affiliate payroll costs are known and measurable or are just and reasonable. The claimed increases for Nebraska direct payroll should be included in the revenue requirement, but the Company must support its adjustments in its next rate case. The amount of the payroll increase that should be included in rates in this case is \$754,548.<sup>39</sup> The Company calculated the adjustment to employee benefits by dividing base period benefits, direct and allocated from Holding Company, by base period payroll, direct and allocated from Holding Company. The percentage utilized by Black Hills is 37.435%. The percentage for Black Hills direct payroll is 17.33% and the percentage for Holding Company is 88.16%.<sup>40</sup> There is no explanation for this significant difference. Since we recommend including only the Nebraska direct payroll increase, we also recommend including only the Nebraska direct benefits calculated using the Nebraska only 17.33% which is an increase of \$130,773.

Adjustment No. 4 - The wage adjustment for the new gas control department proposed by the Company is \$54,713. The Company testifies that the two positions vacated by the employees who transferred to this new department have been filled. Thus, there is no net decrease in wages. The Public Advocate suggests that the Company should recognize some amount of savings that may result from the creation of this department. The Company admits that “Future cost savings are anticipated by avoiding pipeline scheduling penalties through additional monitoring of

---

<sup>38</sup> BHE-18 at9.

<sup>39</sup> Per Company IS Adj No 3-NE Payroll Adj TYE 7312009.xls.

<sup>40</sup> Id, Workpaper G

pipeline capacity,” but also points out that such potential savings have not been quantified. Mr. Petersen provided an updated payroll adjustment as of May 7, 2010, but provided no workpapers or supporting documentation for the figure provided on page 9 of his rebuttal testimony. Subject to review of supporting detail, we recommend that updated adjustment be included in rates if the amount related to this adjustment can be determined.

Adjustment No. 5 - The Public Advocate makes very general objections to this adjustment. Mr. Arndt recommends that the adjustment be excluded from rates because the Company is not contractually obligated to give these merit bonuses. Mr. Petersen explains in his rebuttal testimony that while the Company is not contractually obligated to pay merit increases, they are part of the Company’s compensation plan. He also states “These merit increases were given to all eligible non-union employees on April 5, 2010.”<sup>41</sup> Mr. Petersen provided an updated payroll adjustment as of May 7, 2010, but provided no workpapers or supporting documentation for the figure provided on page 9 of his rebuttal testimony. Subject to review of supporting detail, we recommend that updated adjustment be included in rates if the amount related to this adjustment can be determined.

Adjustment No. 6 – Mr. Arndt’s analysis of the problems inherent in the Company’s proposed adjustment for union wage increases was accurate. The ultimate increase is 2.5% and the effective date was May 2010. We recommend that the recalculated union wage increase in Mr. Petersen’s rebuttal testimony be included in rates in the amount of \$187,085.<sup>42</sup>

---

<sup>41</sup> BHE-18 at 14

<sup>42</sup> Id at 20.

### ***B. Variable Compensation***

***Black Hills' Position:*** At page 7 of his direct testimony, Mr. Petersen states that the Company made no adjustment to the base year level of variable compensation. He explains that amounts were accrued during the base year. These amounts are included in base year expenses. No Black Hills witness explains what the variable compensation program is, which employees are eligible, the basis for awarding this compensation, etc. The amount included in the base year is not provided.

In rebuttal testimony, Mr. Petersen explains that the variable compensation was provided by Aquila under its "Variable Compensation Plan." Black Hills offered the rebuttal testimony of Ms. Patterson to explain the Company's compensation philosophy and to "further address Mr. Arndt's issue with variable compensation."<sup>43</sup>

***Public Advocate's Position:*** Mr. Arndt recommends that the variable compensation bonuses that the Company accrued during the test year be excluded from rates because Black Hills did not support it in its direct case.

***Analysis and Recommendation:*** The information provided by Ms. Patterson in her rebuttal testimony should have been provided as direct testimony in order to allow the parties in this case to explore the information she provided through the discovery process. Ms. Patterson states that Black Hills Corporation's incentive plan is "designed to reward eligible employees, including employees of BHE, who contribute to the success of the Company and/or their assigned Business Unit; reward employees who contribute to the quality of service provided to customers including, but not limited to, the provision of safe, reliable and affordable service; motivate work performance and behavior that support the Corporation's financial and non-

---

<sup>43</sup> Id at 21.

financial goals and increase the employee's understanding of the Corporation's business objectives and performance."<sup>44</sup> The incentive appears to be based equally on employee performance and on meeting performance goals such as meeting an earnings per share goal.

How Aquila handled variable compensation or Aquila's compensation philosophy is not relevant. Black Hills is a different company with a different structure and different management.

We agree with the Public Advocate that Black Hills did not support the variable compensation included in base year expenses. While the rebuttal testimony of Ms. Patterson provided more information, it did not address all of the issues that are commonly raised in rate cases regarding variable compensation. For example, many commissions exclude all or part of any variable compensation paid based on performance targets such as earnings or earnings per share. In our opinion, the Company has not provided sufficient information to support inclusion of the \$766,930 included in base year expenses. On the other hand, Ms. Patterson explained that variable compensation is part of the Company's overall compensation plan. Whether the Commission includes or excludes this amount, the Company should support these amounts, and all other amounts, that it proposes to include in rates in its next rate case.

### ***C. Relocation and Severance Costs***

***Black Hills Position:*** The Company did not provide testimony in its direct case regarding relocation and severance costs. Mr. Petersen addresses these costs in his rebuttal testimony. The relocation costs are paid by Black Hills Corporation. Nebraska receives "its assigned direct and allocated share of any relocations costs."<sup>45</sup> Mr. Petersen testifies that relocation costs vary depending on new hires and job transfers. He provides the relocation costs

---

<sup>44</sup> BHE-33 at 6

<sup>45</sup> BHE-18 at 28

incurred for the years 2005 through 2009 and suggests that a normalized level could be included in rates such as the five year average of \$121,184.

In his rebuttal testimony, Mr. Petersen agrees that the \$17,214 base year severance costs should be eliminated.

**Public Advocate's Position:** Mr. Arndt recommends that the \$340,153 in relocation costs and \$17,214 for severance costs included in the base year expenses be excluded from rates because they are "abnormal."<sup>46</sup>

**Analysis and Recommendation:** Based on the five years of data provided by Mr. Petersen in his rebuttal testimony, relocation costs more than doubled in 2009 compared to 2008. We agree that the amount included in rates should be a normalized amount and recommend adoption of Mr. Petersen's \$121,184. The Company and the Public Advocate agree that the severance costs of \$17,214 be removed from rates.

#### ***D. Rebranding Costs***

**Black Hills' Position:** The Company made no adjustment to its base year costs of operations to remove the amounts it expended to change the identity of the Nebraska gas utility from Aquila to Black Hills. The Company states in its response to data request PA-253 (confidential) "There are costs in the test year related to conversion of signs, automobile, and infrastructure costs." Black Hills failed to address the question posed by the Public Advocate which asked the Company to explain why such costs are properly includable in rates.

In rebuttal, the Company's position is that these costs should be included in rates "to permit Black Hills Energy to recover its company identification costs."<sup>47</sup> The Company proposes

---

<sup>46</sup> PA-101 at 47.

<sup>47</sup> BHE-18 at 30.

elimination of 50% of the \$190,552 the Public Advocate identifies as rebranding costs because of the “recurring nature of some level of Company identification costs.”<sup>48</sup>

***Public Advocate’s Position:*** Mr. Arndt testifies that rebranding costs are “abnormal and non-recurring costs related to Black Hills Corporation’s acquisition of Aquila’s Nebraska gas utility assets.”<sup>49</sup> The total amount incurred was \$291,245. Black Hills removed \$100,696 in its advertising adjustment leaving \$190,552 in its revenue requirement.

***Analysis and Recommendation:*** The detail provided by Black Hills in response to data request PA-253 shows that a work order was established to collect “Aquila Rebranding-General” costs. Labor and labor overhead costs were charged to this work order. It is reasonable to conclude that the Company’s annualized labor costs that are included in this rate case include the labor costs that were charged to rebranding during the test year. To include these amounts again would allow the Company to double recovery these costs. We agree with the Public Advocate that these are non-recurring costs and that to allow them to be included in rates in this case would allow the Company to recover them again each year that the rates from this case are in effect. \$190,552 should be removed from operating and maintenance expenses.

### ***E. Rate Case Expenses***

In its direct testimony, the Company estimated rate case expenses of \$750,000 for outside legal fees, outside consultants, filing fees, and out-of-pocket expenses for the instant case. Black Hills also requested recovery of costs for Aquila’s last general rate case, Docket No. NG-0041, in the amount of \$846,210. Base year expenses include \$399,026. Black Hills is proposing to

---

<sup>48</sup> BHE-18 at 31.

<sup>49</sup> PA-101 at 41.

recover these costs through a onetime surcharge. In the alternative, the Company proposes a rider which would allow recovery of rate case expenses over two years.

Mr. Dee testifies that the total costs incurred by Aquila for its last rate case were \$1,197,050 and \$254,630 has been recovered. In his rebuttal testimony, Mr. Dee states that the unamortized Aquila rate case expenses “transferred from Aquila to Black Hills Energy under the asset purchase agreement between Aquila and Black Hills Corporation.”<sup>50</sup>

**Public Advocate’s Position:** Mr. Arndt states that the Company should not be allowed recovery of the \$942,420 of additional rate case expenses from Aquila’s 2006 rate case. Black Hills purchased the Nebraska gas utility operations from Aquila in July 2008. Black Hills has not demonstrated that these charges were prudent or just and reasonable. Mr. Arndt recommends that Black Hills’ estimated \$750,000 in rate case expenses be recovered through base rates over three years.

**Analysis and recommendation:** Black Hills has failed to demonstrate that the additional Aquila rate case expenses are just and reasonable. In fact, Black Hills has not provided any details of the charges that comprise the requested \$846,210.

#### IV. AFFILIATE TRANSACTIONS

**Black Hills’ Position:** As Mr. Law pointed out in his opening statement on behalf of the Company, this is the first case Black Hills has filed with the Commission. He also stated “the legal structure for Black Hills is different than that of Aquila.”<sup>51</sup> Mr. Mechtenberg provided an organization chart for Black Hills Corporation in his Exhibit DJM-1.<sup>52</sup> In his direct testimony, Mr. Cleberg explains the role of Black Hills Service Company and Black Hills Holdings. Black

---

<sup>50</sup> BHE-22 at 32

<sup>51</sup> Transcript at 92.

<sup>52</sup> BHE-15

Hills Energy has service agreements with both of these affiliated service companies. Mr. Cleberg explains that allocation of affiliate costs are governed by the appropriate cost allocation manual. He provides a copy of the Black Hills Utility Holdings and the Black Hills Service Company cost allocation manuals.<sup>53</sup>

The Holdings cost allocation manual provides a brief description of how transactions are coded in its PeopleSoft accounting system, the role of each department within Holdings and how the indirect costs of each department are allocated. There is also a description of each of the allocation factors. There is no explanation as to why any given factor is used to allocate the costs of a given department. The same kinds of information are contained in the Service Company cost allocation manual.

On May 18, 2010, the Company provided the direct testimony and exhibits of Jeffrey O. Thomas in response to questions posed by the Commission regarding affiliate transactions. Mr. Thomas is employed by Black Hills Utility Holdings Company. Mr. Thomas explains that the Commission's questions were "intended to complete the record in this proceeding."<sup>54</sup> Sixteen exhibits are attached to Mr. Thomas' testimony all of which are responses to Public Advocate data requests.

Mr. Thomas testifies:

*Black Hills Corporation did not reinvent or design entirely new allocation methods once it purchased the Aquila assets. In fact, each Commission approving the purchase and transfer of assets required Black Hills Corporation to adopt and apply the Cost Allocation Manuals that it filed with its application for approval to transfer those assets to Black Hills Corporation.*

---

<sup>53</sup> BHE-27, Exhibit ASC-3 and Exhibit ASC-4

<sup>54</sup> BHE-68

***Public Advocate's Position:*** Mr. Arndt testifies that “57.04% of Black Hills Energy’s Nebraska test year O&M expenses (are) related to charges from affiliate companies.”<sup>55</sup> He states “the Company has the burden to show that its affiliate charges are (1) each payment is prudently incurred for each item or class of items at the time incurred; and (2) the costs charged by an affiliate reasonably approximate the market value of the service to it.”<sup>56</sup> Even though, in his opinion, the Company failed to support its affiliate transactions, he does not recommend disallowance of the affiliate charges at this time.

***Analysis and Recommendation:*** Commission Rule 005.7 clearly and concisely summarizes what the utility must demonstrate in order to include costs allocated to it from affiliates in rates. This rule dates back to 2006. Black Hills did not attempt to meet its burden of proof in its direct testimony. Mr. Thomas states that his testimony was filed in response to Commission questions, not to meet the Company’s burden of proof which is to demonstrate: 1) that the cost of each item or class of item from an affiliate was prudently incurred and 2) that the cost from the affiliate for each item or class of items is no more than the market value of the goods or service.

The remedy for failure to comply with the Commission’s rule is exclusion of all costs included in expense and rate base that were allocated to the Company from an affiliate. This would result in a significant rate decrease in this case. In Docket No. NG-0041, the Commission was faced with the same situation. In that case, the Public Advocate provided alternative allocations for some affiliate costs, which the Commission adopted. The Commission “reluctantly” accepted the remainder of the utility’s affiliate cost allocations and “advised (the

---

<sup>55</sup> PA-101 at 42

<sup>56</sup> Id at 43

utility) to fully support its allocation methodologies in its next application for a rate increase.”<sup>57</sup> We recommend that the Commission allow Black Hills’ affiliate costs in this case only. The Commission should give the Company the same instructions as it gave the utility in Docket No. NG-0060.

## V. DEPRECIATION EXPENSE

Depreciation expense is a straight-forward calculation which is based on the plant in service included in rate base and the appropriate depreciation rates. We have recalculated depreciation expense on the plant in service we recommend including in rate base as \$11,557,478.

The Company’s calculation of the annualized depreciation expense indicates that depreciation expense related to several plant accounts, such as transportation equipment, is included in operating and maintenance expenses rather than in depreciation expense.<sup>58</sup> A portion of depreciation expense should be capitalized to plant when assets are self-constructed. There was no indication that any depreciation expense was capitalized. We invite the Company to discuss this in its comments to this report.

## VI. PROPERTY TAXES

***Black Hills’ Position:*** In his direct testimony, Mr. Petersen states that property tax was adjusted “to reflect revised Nebraska net taxable value.”<sup>59</sup> In rebuttal, Mr. Petersen counters the reasons presented by the Public Advocate for excluding the Company’s adjustment from rates. Mr. Hollibaugh also addresses property tax in his rebuttal testimony.

---

<sup>57</sup> Order Granting Application in Part, Docket No. NG-0060, March 9, 2010

<sup>58</sup> BHE-11, IS-3

<sup>59</sup> BHE-17 at 8

***Public Advocate's Position:*** Mr. Arndt recommends that the Company's adjustment be rejected for two reasons. He states that Black Hills' adjustment is a forecasted future expense and is not known and measurable. And, he complains that the Company did not make adjustments to "recognize revenue growth related to increased customer levels during and after the test year."

***Analysis and Recommendation:*** The Company provides very little information in its direct case regarding its proposal to increase base year property taxes by \$104,095. There is no indication as to the provenance of the "revised Nebraska net taxable value." While Black Hills provided a workpaper for this adjustment, the information is indecipherable. There is no support for the methodology used and there are no references for the amounts used in the calculations. No additional information was provided in rebuttal. The Company simply states "the adjustment was calculated to determine the Nebraska taxable value at the end of the test period."<sup>60</sup> The assumptions inherent in the calculations, the basis for the calculations, the source of the values used in the calculations have not been provided. The responses to the data requests cited by Mr. Hollibaugh in his rebuttal provide no further assistance.

We do not understand the basis for or the calculations that produce the Company's adjustment. Given the total lack of support for this adjustment, we agree with the Public Advocate that the Company's adjustment is not known and measurable. We recommend that this adjustment be excluded from the determination of rates in this case.

---

<sup>60</sup> BHE-18 at 33

## VII. INCOME TAXES

***Black Hills' Position:*** The Company provides no testimony or workpapers in direct case regarding income taxes. In his rebuttal testimony, Mr. Hollibaugh presented the rebuttal of the Public Advocate's recommendation. He testifies that state and federal income taxes are routinely included in rates.

***Public Advocate's Position:*** Mr. Arndt states that the Company's direct testimony does not support inclusion of state and federal income taxes calculated on a stand-alone basis. While Mr. Arndt does not recommend that income tax expense be excluded in this case, he does recommend that the Company justify the income tax expense it proposes to include in rates.

***Analysis and Recommendation:*** The Company did not support its income tax calculation in either its direct or its rebuttal testimony. In addition, the Company did not provide support for the 1.6435 revenue conversion factor shown on Exhibit I, Schedule A and on other schedules. The only source for the tax rates used for federal (34%) and state (7.81%) income taxes is the electronic version of the Company's exhibits and Mr. Arndt's testimony. There is no testimony explaining why these are the appropriate tax rates. In fact, none of the Company's exhibits show the amount of income tax expense included in Black Hills' proposed rates. However, Mr. Arndt provides this information in his testimony. While income tax expense is routinely included in rates, it is the responsibility of the applicant to support the calculation, the tax rates, and all other pertinent information.

The income tax expense Black Hills proposes to include in rates is:

Company's proposed rate base	Ex III, Sch B-2	\$ 176,987,048
Company's proposed WACC	Ex III, Sch A	<u>9.84%</u>
Return		\$ 17,414,110
Company's proposed rate base	\$ 176,987,048	
Company's weight cost of debt	<u>3.86%</u>	
Interest expense		<u>6,830,284</u>
Taxable return after tax		\$ 10,583,825
Tax factor		<u>0.6435096</u>
Income tax expense		<u>\$ 6,810,793</u>

This income tax expense will change if the return amount, the weighted average cost of capital, and/or the total rate base changes. We recommend that the income tax expense that is ultimately included in rates be calculated using this approach. We also recommend that the Company completely address income tax expense, as well as all other aspects of its case, in its next rate case before this Commission.

### VIII. COST OF CAPITAL

Detailed discussion of the cost of capital issues is provided in Appendix A. The Commission's advisors recommend adoption of the Company's proposed capital structure, the Company's proposed cost of debt, and a return on equity capital of 9.6 percent. Therefore, the recommended overall cost of capital is 8.85%:

	% of Total	Cost	Weighted Cost
Long-term debt	48.0%	8.04%	3.86%
Equity	52.0%	9.60%	4.99%
	100.0%		8.85%

## **IX. COST OF SERVICE STUDY**

The Black Hills' cost of service study (COSS) serves two purposes. First, it assigns or allocates the Company's total Nebraska revenue requirement to the jurisdictional and non-jurisdictional customers. Second, it assigns or allocates the jurisdictional revenue requirement to the Residential, Commercial and Energy Options-Firm customer classes. Cost of service studies are typically developed in the following three distinct steps: 1) functionalization, 2) classification and 3) allocation. The first step, functionalization, is the assignment of total Company costs to the major functional categories of supply, transmission, distribution and customer service.<sup>61</sup> Next, each functional category of costs are classified as demand-related, commodity-related and/or customer-related. The final step, allocation, assigns or allocates each group of classified costs to the various jurisdictions and customer classes using an appropriate allocation methodology. In some instances, costs may be directly assigned to a particular jurisdiction or customer class.

Each step of the cost of service study may be performed using various theories and methodologies. In developing an appropriate cost of service study, the key is determining the best methodologies for the utility involved based on the information presented. In this case, the Company and the PA have differences of opinion regarding some of the classification and allocation methodologies.

---

<sup>61</sup> The Company's COSS uses twelve functions per the direct testimony of Black Hills witness Sullivan. Exhibit BHE - 19, at 19.

### ***A. Classification of Mains***

***Black Hills' Position:*** Company witness Sullivan classifies 32.93% of distribution mains as demand-related, 5.99% as commodity-related and 61.08% as customer-related.<sup>62</sup> The Company also claims this is the same methodology it used to classify mains in Docket No. NG-0041 and that was approved by the Commission. In its rebuttal testimony, Company witness Loos explains the methodology he used to develop the classification percentages used by Mr. Sullivan.<sup>63</sup> It should be noted that while Black Hills is using the same mains classification methodology that was used in its last rate case, the Company is applying the classification percentages to different plant amounts. In Docket No. NG-0041, the Company first directly assigned mains (transmission and distribution mains) to customers and/or Rate Areas. It then applied the classification percentages to the remaining, non-directly assigned mains. In this case, Black Hills has only directly assigned a portion of transmission mains to Cargill. It then applies the classification percentages to the remaining transmission mains and to the total amount of distribution mains. Black Hills claims that applying the above classification percentages to all mains, including those directly assigned to customers in the last case, results in more mains costs being assigned to the non-jurisdictional customers in this case as compared to the last case.<sup>64</sup>

***Public Advocate's Position:*** PA witness Marcus criticizes the classification method used by the Company and claims the Company is using a minimum-system methodology. The PA recommends not classifying any mains costs as customer-related. The PA also believes that the zero intercept classification method is more appropriate for classifying mains should the

---

<sup>62</sup> Exhibit BHE – 19, at 20.

<sup>63</sup> Exhibit BHE – 32, at 13-24.

<sup>64</sup> Exhibit BHE – 20, at \_\_\_\_.

Commission decide to classify some main costs as customer-related. Using that methodology, the PA would classify 25% of mains as customer-related.<sup>65</sup>

***Analysis and Recommendation:*** In this case, the classification of mains has a substantial impact on the allocations of costs to jurisdictions and to customer classes. The greater the percent of mains classified as customer-related, the larger the amount of costs allocated to both the jurisdictional customers and residential customers. In Docket No. NG-0041, the Commission gave a preference for directly assigning mains to the non-jurisdictional customers and Rate Areas. In this case, the Company claims that since it is consolidating Rate Areas to comply with the Commission's Order in Docket No. NG-0041 that it no longer maintains the accounting records to directly assign mains to non-jurisdictional customers. This reasoning for no longer maintaining the necessary accounting records is not logical. However, for whatever reason, the Company has not provided the information needed to directly assign mains to the non-jurisdictional customers in this case.

In Black Hills' rebuttal testimony, the Company points out that PA witness Marcus incorrectly describes the Company's classification methodology as a minimum system method. Instead, the Company conducted an engineering analysis to determine the demand- or capacity-related component of mains. In his rebuttal testimony, Black Hills witness Loos also discusses problems with the PA's zero-intercept analysis for classifying mains. Based on the information presented by the Company and the PA for classifying mains, there are three choices. First, the classification methodology approved by the Commission in Black Hills' last rate case for allocating non-directly assigned mains classes can be applied in the case for allocating all mains (other than the mains for Cargill) as recommended by Black Hills. Second, the PA's primary

---

<sup>65</sup> Exhibit PA – 102, at 18-31.

proposal of not classifying any mains costs as customer-related can be used. Or third, the PA's alternative proposal of using a zero-intercept methodology to classify mains can be used. We see no basis for departing from the approach approved to classify a portion of mains in Docket No. NG-0041 in this proceeding. We are, however, troubled by not having the information needed to directly assign more mains to the customers in this case, as was done in Docket No. NG-0041. The Commission should require Black Hills to maintain this information and to provide it in future rate cases.

### ***B. Allocation of Compressor Station***

***Black Hills' Position:*** In its filed cost of service study, Black Hills allocated its investment in compressor stations on the same basis that it allocated mains.

***Public Advocate's Position:*** PA witness Marcus recommended allocating 50% of the compressor station using a commodity based allocation factor and 50% using a demand based allocation factor.<sup>66</sup>

***Analysis and Recommendation:*** In the Company's rebuttal testimony, Black Hills agreed with the PA's recommended allocation of the compressor station.<sup>67</sup>

### ***C. Allocation of Uncollectibles***

***Black Hills' Position:*** In its filed cost of service study, the Company uses its "customer accounts" allocator to assign the uncollectible expenses among the jurisdictions and customer classes. This allocation methodology is not specifically explained in Black Hills' application.

***Public Advocate's Position:*** PA witness Marcus disagrees with the Company's proposed allocation of uncollectibles. Instead, he recommends allocating those costs using an allocation

---

<sup>66</sup> Exhibit PA – 102 at 31.

<sup>67</sup> Exhibit BHE – 20 at 15-16.

factor based on the average annual uncollectibles attributable to each customer class (including non-jurisdictional customer classes) over a five year period.<sup>68</sup>Mr. Marcus' reasoning for using a five year average, as opposed to just the class test year uncollectible amounts, is that uncollectible expenses can vary significantly from year-to-year, especially for customer classes with large users.

***Analysis and Recommendation:*** In his rebuttal testimony, Black Hills' witness Sullivan argues that the bulk of the non-jurisdictional customer class uncollectibles used by the PA should not be used since it occurred after the test year and was the result of a special circumstance.<sup>69</sup>The PA has demonstrated that uncollectible can vary significantly from year-to-year and that the use of a test year snap-shot amount can produce unreasonable results. The Company's claim that the bankruptcy that caused the bulk of the non-jurisdictional customer class uncollectibles is not likely to reoccur is speculative given today's economy. We recommend adopting the PA's recommended adjustment for allocating uncollectibles.

#### ***D. Allocation of Administrative and General Expenses***

***Black Hills' Position:*** In its filed COSS, Black Hills allocated all administrative and general (A&G) expenses using an allocation factor based on the allocation of all other operation and maintenance (O&M) expenses. As stated in Black Hills' witness Sullivan's rebuttal testimony, a portion of the non-A&G, or other O&M, expenses were assigned to the commodity function and therefore assigns some A&G expenses to the transportation service and throughput customers.<sup>70</sup>

---

<sup>68</sup> Exhibit PA – 101 at

<sup>69</sup> Exhibit BHE – 20, at 16-17.

<sup>70</sup> Exhibit BHE – 20, at 17-18.

**Public Advocate's Position:** PA witness Marcus claims that approximately \$83,000 of the Company's test year A&G expenses is not related to a local distribution company's (LDC) gas delivery or distribution responsibilities and, therefore, should not be recovered from just the jurisdictional customer classes.<sup>71</sup>Based on Black Hills' response to PA data requests PA-218 and PA-219, Mr. Marcus claims that the \$83,000 was incurred for the administration of gas procurement and transportation. The PA's recommended solution to this problem is to allocate the \$83,000 using a commodity-based allocation factor.

**Analysis and Recommendation:** Based on the Company's responses to data requests PA-218 and PA-219, it appears that the \$83,000 in question should be a revenue requirement disallowance since it is not relevant to the gas distribution services to be addressed in this proceeding. However, the record does not include a recommendation to disallow the entire \$83,000. The PA's recommended allocation of the \$83,000 would at least further reduce the portion of the \$83,000 assigned to the jurisdictional customer classes. We recommend adopting the PA's recommendation on the issue.

### ***E. Allocation of Other Revenue***

**Black Hills' Position:** Company witness Sullivan explains that he credits other operating revenues to the allocated class cost of service in his COSS.<sup>72</sup> In his COSS, Mr. Sullivan has allocated other revenues to the jurisdictions and customer classes using two approaches. He directly assigns 100% of the late payment charge revenues to the residential customer class. For the other tariffed revenues, which are mostly for service connections, service reconnections and

---

<sup>71</sup> Exhibit PA – 102, at 32.

<sup>72</sup> Exhibit BHE – 19, at 23.

returned checks, Mr. Sullivan allocates these revenues among the customer classes using an allocation factor based on O&M expenses.

***Public Advocate's Position:*** The PA disagrees with Black Hills' proposed allocation of other revenues. As for the late payment charge revenues, the PA proposes allocating a portion of those revenues to non-residential customer classes based on the Company's response to data request PA-194. For the remaining other revenues, PA witness Marcus develops an allocation factor using the information also provided in response to data request PA-194.<sup>73</sup>

***Analysis and Recommendation:*** In its rebuttal testimony, it appears that Black Hills mostly agrees with the PA's recommended allocation of other revenues but corrects some of the PA's calculations or assumptions.<sup>74</sup> We recommend adopting the PA's proposed method for allocating other revenues as revised or corrected in Black Hills' rebuttal testimony.

#### ***F. Distribution of Revenue Increase***

***Black Hills' Position:*** The Company's COSS shows that the current rates for all jurisdictional customer class result in an under-recovery of the class' allocated cost of service. Based upon Black Hills' analysis, the current residential rates are earning the lowest rate of return in comparison to the other customer classes. The Company is proposing to move all jurisdictional customer classes' revenue levels to equal their allocated cost of service.<sup>75</sup> As a result, the residential customer class receives by far the largest percent rate increase. The following table summarizes Black Hills' proposed revenue distribution:

---

<sup>73</sup> Exhibit PA – 102, at 33.

<sup>74</sup> Exhibit BHE – 20, at 18-19.

<sup>75</sup> Exhibit BHE – 19, at 30-31.

<b>BHE Revenue Distribution*</b>				
<b>Customer Class</b>	<b>Current Revenues</b>	<b>Proposed Revenues</b>	<b>Proposed Increase</b>	
			<b>Amount</b>	<b>Percent</b>
<b>Residential</b>	\$44,137,760	\$55,726,668	\$11,588,909	26.26%
<b>Commercial</b>	11,002,915	11,474,494	471,579	4.29%
<b>Energy One Firm</b>	4,943,048	4,965,090	22,042	0.45%
<b>Total Company</b>	\$60,083,048	\$72,166,253	\$12,082,530	20.11%

\*From Exhibit BHE – 19, Exhibit \_\_\_ (TJS-7)

**Public Advocate’s Position:** The PA is recommending an overall rate revenue decrease and under the PA’s COSS, each customer class would receive a rate reduction if rate levels are set equal to the class cost or service.<sup>76</sup>If the Commission approves an overall revenue reduction but uses the Company’s cost allocation methodologies, the PA calculates that the resulting COSS would show a rate increase for the residential class and a rate decrease for the commercial class. In that situation, the PA recommends leaving the residential rates at the current level and only reducing the commercial class rates by the “net” system revenue reduction amount.

**Analysis and Recommendation:** The primary revenue distribution recommendations of both the Company and the PA is to set class rate levels equal to their allocated cost of service. The PA, however, also recognizes that the Company and PA have widely disparate overall revenue and cost allocation positions. Depending on how the Commission rules on certain issues, the results may make it unreasonable to set class rate levels equal to the approved cost of service. For example, we do not believe the Company’s proposed revenue distribution is reasonable since it results in a very large percent increase for residential customers and a modest percent increase for commercial customers. Once the Commission decides the revenue requirement and cost

<sup>76</sup> Exhibit PA – 102, at 44-45.

allocation issues previously discussed, it should then use its discretion to determine if it is reasonable to set class revenue levels equal to the cost of service or to apply gradualism.

## **X. RATE DESIGN**

There are two major rate design issues in this case. As was the case in Docket No. NG-0041, one major issue is the appropriate level of the monthly customer charge. From a cost of service perspective, this issue is significantly impacted by the ruling on the classification of mains issue previously discussed. The other major rate design issue is Black Hills' proposal to move from the current flat commodity charge rate design to a declining two block commodity charge.

### ***A. Customer Charge***

***Black Hills' Position:*** The Company's filed COSS supports monthly customer charges of \$18.05 per month for residential customers and \$40.73 per month for commercial customers. In its application, the Company is proposing to increase the existing residential customer charge of \$12.00 per month to \$15.00 per month, an increase of \$3.00 per month, or 25 percent. The Company is also proposing to increase the existing commercial customer charge of \$17.00 per month to \$20.00 per month, an increase of \$3.00 per month, or 17.6 percent.<sup>77</sup>

***Public Advocate's Position:*** The PA's primary rate design recommendation is to keep the monthly customer charge at the current levels. The PA also offers an alternative rate design recommendation that would increase the residential customer charge to \$12.00 per month.<sup>78</sup> The PA does not make rate design recommendations for the Commercial customer class or the Energy Options Firm customer class. To support keeping the residential customer charge at the

---

<sup>77</sup> Exhibit BHE – 19, Exhibit \_\_ (TJS-7).

<sup>78</sup> Exhibit PA – 102, at 43 and 44.

current level, PA witness Marcus testifies that one should only consider “direct” customer-related costs such as services, meters and customer accounting costs when determining the appropriate level of the monthly customer charge. Under this approach, “common” customer-related costs such as mains, general plant and A&G expenses would not be recovered in the customer charge. Using his approach, Mr. Marcus determines that the “direct” customer-related costs are \$8.23 per month for a residential customer.<sup>79</sup>In the alternative, if the Commission decides to increase the residential customer charge then PA witness Marcus recommends that it be increased gradually and no more than \$1.00 per month.

***Analysis and Recommendation:*** In Docket No. NG-0041, the Commission approved a \$1.00 per month increase (\$12.00 per month total) for the residential customer charge and a \$2.00 per month increase (\$17.00 per month total) for the commercial customer charge. We do not believe the PA’s position to limit the type of customer-related costs that should be recovered in the monthly customer charge was adequately supported. We do, however, agree with the PA’s recommendation to gradually increase the monthly customer charge to avoid large percent increases for some customers. At the reduced revenue increase level recommended in this Advisory Report and with the recommended cost allocation adjustments, the unit-costs for customer-related charges will be lower than proposed by the Company. Based on these considerations, we recommend increasing the monthly customer charges by the same amounts approved in Docket No. NG-0041.

---

<sup>79</sup> Exhibit PA – 102, at 36.

### ***B. Declining Block Commodity Charge***

***Black Hills' Position:*** The Company is proposing to change its current flat commodity charge rate structure to a declining two block commodity rate structure, Black Hills' witness Sullivan offers two reasons for this proposed rate design change. These are: 1) to recover the remaining customer-related costs not recovered in the monthly customer charge in the first block of the commodity charge and 2) to be more competitive with electric rates that are targeted to attract space heating service.<sup>80</sup>To support the second reason, Mr. Sullivan provided a study comparing the electric rate structure of several electric utilities in Nebraska.<sup>81</sup>

***Public Advocate's Position:*** The PA recommends maintaining the current flat commodity rate structure. The PA also disagrees with some of the claims made by the Company regarding the competitive considerations of electric utility rate structures.<sup>82</sup> The PA also argues that a declining block commodity charge will not promote energy efficiency and will have a larger impact on certain customers.

***Analysis and Recommendation:*** The first block of the Company's proposed residential commodity charge applies to the first 20 therms of gas usage. Since a significant portion of the residential gas sales fall within this first block, the effect of the Company's proposed rate design is to increase the monthly customer charge. For the reasons discussed regarding the Company's proposed large increases in the monthly customer charges, the declining block rate design should also be denied. While there is a concern regarding the loss of gas usage to electric space heating, it has not been demonstrated that the current flat commodity rate design is resulting in a significant number of customers switching to electric space heating. Maintaining the flat

---

<sup>80</sup> Exhibit BHE – 19, at 27-30.

<sup>81</sup> Exhibit BHE – 19, Exhibit \_\_ (TJS-8).

<sup>82</sup> Exhibit PA – 102, at 39-44.

commodity rate design will also send a more appropriate price signal for encouraging energy efficiency.