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Black Hills Nebraska Gas, LLC d/b/a Black Hills Energy
Docket No. NG-112.1
Review of 2021 Annual Surveillance Report

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Information Reviewed

Blue Ridge Consulting Services, Inc. ("Blue Ridge") reviewed the 2021 Annual Surveillance Report, dated March 1, 2022, of Black Hills Nebraska Gas, LLC d/b/a Black Hills Energy ("Company"), that was filed in Docket No. NG-112.1. On March 17, 2022, in response to an inquiry by the Nebraska Public Advocate, the Company provided a cost update for the 2022 SSIR capital projects.

Background

On December 14, 2021, The Nebraska Public Service Commission approved the Company's 2022 SSIR charge and related tariff revisions. The Company's approved tariff lays out the requirements for the annual surveillance filing. The Company's approved tariff states

> The Company shall make annual surveillance filings within sixty days of the end of each calendar year. Such filings shall include calculations of the rate base separated into regular and SSIR components, the realized rates of return on the rate base components, along with supporting calculations. Additionally, the filing shall include an update regarding the status of the current calendar year's SSIR Project costs, projected in-service dates, and the expected schedule over the remainder of the calendar year.[1]

Analysis, Conclusions, and Recommendations

Blue Ridge compared the information required in the approved tariff to the Company's March 1, 2022, annual surveillance filing.

Requirement: The Company shall make annual surveillance filings within sixty days of the end of each calendar year.

> **Conclusion**: The Company filed is annual surveillance report within the required sixty days of the end of the calendar year.

Requirement: Such filings shall include calculations of the rate base separated into regular and SSIR components....

> **Conclusion**: The Company's filing reflected both regular and SSIR components. The Company provided calculations labeled as Jurisdictional Composite, Jurisdictional SSIR, and Jurisdictional Excluding SSIR rate bases.

Requirement: Such filings shall include calculations of the rate base separated into regular and SSIR components, ***the realized rates of return on the rate base components....***

> **Analysis**: The Company filing includes Calculation 1, described as "For the most recent annual period, the calculation of the realized rate of return on the Composite, SSIR, and Non-SSIR rate bases, determined on a period ending rate base."
>
> The calculation includes Net Jurisdictional Operating Earnings, Total Rate Base (Period Ending), Realized Actual Rate of Return, and Realized Actual Return on Equity by Composite, SSIR and Jurisdictional Excluding SSIR as shown in the following table.

[1] BHE Tariff, Second Revised Sheet No. 128.

Table 1: Calculation 1—Return on Rate Base

Line No.	Description	Jurisdictional Composite	Jurisdictional SSIR	Jurisdictional Excluding SSIR	Reference
	(A)	(B)	(C)	(D)	
1	Net Jurisdictional Operating Earnings	[redacted]			
2	Total Rate Base (Period Ending)	[redacted]			
3	Realized Actual Rate of Return	[redacted]			
4	Realized Actual Return on Equity	[redacted]			

Blue Ridge traced the Net Jurisdictional Operating Earnings (Line 1) and Total Rate Base (Line 2) to supporting spreadsheets. We were also able to validate the calculated Realized Actual Rate of Return calculation (Line 4).

The Realized Actual Return on Equity (Line 4) amounts are hard-coded numbers, and the amounts provided could not be replicated using the referenced derivation (Line 3 – Calculation 4 divided by Calculation 4).

The Company's authorized weighted average cost of capital (WACC) from its last base distribution rate case (NG-109) is 6.71%. The WACC is relevant to line 3 in the table above. The approved Return on Equity (ROE) is 9.5%, which is relevant to Line 4 in the table above.

Conclusion: The Company provided ***the realized rates of return on the rate base components*** as required in the approved tariff. However, Blue Ridge was unable to validate the Realized Actual Return on Equity values using the Company's referenced calculation.

For the 12 months ending December 31, 2021, the Company is below its authorized WACC.

Recommendation: The Company should modify its reference to reflect how it calculated the Realized Actual Return on Equity. The Company supporting Excel file should also provide the actual formula instead of hard coded values.

Requirement: Such filings shall include calculations of the rate base separated into regular and SSIR components, the realized rates of return on the rate base components, ***along with supporting calculations.***

Analysis: The Company's cover letter identifies four calculations. The calculations are supported by seven Excel spreadsheets.

The Company's Excel spreadsheets included hard coded values instead of formulas. In addition, the various Excel spreadsheet that support used values are not linked. For example, Calculation 1 includes the results from Calculation 2 and 3, but the amounts shown on Calculation 1 are hard-coded instead of linked to the supporting calculations.

Conclusion: The use of hard-coded values instead of intact formulas makes it difficult to verify the Company's calculation. In addition, the lack of links between spreadsheets can result in errors if a value is changed on a supporting spreadsheet that is not carried forward.

Recommendation: The Company's supporting Excel files should include working formulas and be linked to other spreadsheets so that calculated values may be carried forward rather than hard-coded.

The following section reviews each calculation and supporting schedule provided by the Company.

Calculation 1: For the most recent annual period, the calculation of the realized rate of return on the Composite, SSIR, and Non-SSIR rate bases, determined on a period ending rate base

Calculation 1 was discussed earlier.

Calculation 1a: For the most recent annual period, the revenue requirements calculation for the composite, SSIR, and non-SSIR components

Analysis: The Total Revenue Requirement calculation provided by the Company is shown in the following table.

Table 2: Calculation 1a—Revenue Requirement Calculation

Line No.	Description (A)	Jurisdictional (B)	Jurisdictional SSIR (C)	Jurisdictional without SSIR (D)	Reference
1	Base Year:	[redacted]			
2	Return on Rate Base				
3	Operations & Maintenance Expenses				
4	Administrative & General Expenses				
5	Taxes Other Than Income				
6	Depreciation & Amortization Expenses				
7	Income Tax Expense				
8					
9	Total Revenue Requirement	[redacted]			
10	Other Revenues				
11					
12	Net Cost of Service	[redacted]			
13					
14	Jurisdictional Base Rate Revenue	[redacted]			
15					
16	Revenue Deficiency / (Excess)	$3,928,624	$1,303,516	$2,625,108	Line 12 - Line 14

Similar to the issue identified in Calculation 1, many of the amounts are hard-coded (Lines 2–7, 10, and 14). While the Company references values from other spreadsheets, it has not linked the values to these other spreadsheet calculations.

Blue Ridge manually verified the hard-coded values to information provided on other spreadsheets. However, Blue Ridge did not verify the accuracy of the source data to audited financial statements.

Conclusion: The use of hard-coded values and the lack of links between spreadsheets can result in errors if a value is changed on a supporting spreadsheet that is not carried forward. Not linking values also makes it difficult to review the accuracy of the Company's filing.

Recommendation: The Company's supporting Excel file should link values carried to other spreadsheets.

Calculation 2: For the most recent annual period, the rate base shown separately for the composite, SSIR, and non-SSIR components, including gross plant, construction work in progress, accumulated depreciation reserve, customer advances, accumulated deferred income taxes, and customer deposits

Analysis: Blue Ridge observed that rate base components are supported by a separate spreadsheet identified as RBData-WP. However, similar to the issue identified in other calculations, the amounts reflected on Calculation 2 (Lines 1–7 and 10–15) are hard-coded and not linked to the supporting schedule.

Blue Ridge manually verified the hard-coded values to information provided on other spreadsheets. However, Blue Ridge did not verify the accuracy of the source data to audited financial statements.

Conclusion: The use of hard-coded values and the lack of links between spreadsheets can result in errors if a value is changed on a supporting spreadsheet that is not carried forward. Not linking values also makes it difficult to review the accuracy of the Company's filing.

Recommendation: The Company's supporting Excel file should link values carried to other spreadsheets.

Calculation 3: For the most recent annual period, the 12-month total revenue, weather normalized, shown separately for the non-SSIR and SSIR tariff components; For the most recent annual period, the 12-month total of operating and maintenance expenses shown by FERC Account, including depreciation expenses; For the most recent annual period, the 12-month total operating income shown separately for the composite, SSIR, and non-SSIR components

Analysis: Blue Ridge observed that expenses are supported by a separate spreadsheet identified as Operating Expenses. However, similar to the issue identified in other calculations, the amounts reflected on Calculation 3 (Lines 11–24) are hard-coded and not linked to the supporting schedule.

Blue Ridge manually verified the hardcoded values to information provided on other spreadsheets. However, Blue Ridge did not verify the accuracy of the source data to audited financial statements.

Conclusion: The use of hard-coded values and the lack of links between spreadsheets can result in errors if a value is changed on a supporting spreadsheet that is not carried forward. Not linking values also makes it more difficult to audit the accuracy of the Company's filing.

Recommendation: The Company's supporting Excel file should link values carried to other spreadsheets.

Calculation 4: For the most recent annual period, the most recent weighted average cost of capital, including the outstanding balances for the capital structure (long-term debt and common equity); the cost of debt; and the most recently authorized rate of return on common equity for the Nebraska regulatory jurisdiction

Analysis: The Company weighted average cost of capital (WACC) uses the cost of long-term debt of 3.91% and Return on Equity (ROE) of 9.5%, as authorized in the last base distribution rate case (NG-109).

The calculated Capital Structure uses an actual capital structure of 48.06%/51.94% debt-to-equity ratio instead of the authorized capital structure of 50% equity and 50% debt. The equity capitalization excludes the $20 million of Storm Uri-related infused equity.

The Company's use of the actual debt-to-equity ratio (48.0%/51.94%) results in a higher Weighted Average Cost of Capital (6.81%) than the WACC approved in the last base distribution rate case using the 50%/50% debt-to-equity ratio. The Commission approved a WACC of 6.71%.

Table 3: Realized Rate of Return and Return on Equity-Most Recent

Line No.	Actual Capital Categories	Average Capitalization	Percent of Total	Cost of Capital	Weighted Cost of Capital
	(A)	(B)	(C)	(D)	(E)
	Base Year Balances				
1	Long Term Debt	[redacted]			
2	Equity	[redacted]			
3	Total Capital	[redacted]			[redacted]

Notes:

(1) Long term debt consists of the total of FERC account 233, less the intercompany interest expense at 233153 and less the debt assignement related to Storm Uri, which, as of 12/31/21, was $76,720,000 at an all-in rate of 1.24%.

(2) Equity consists of FERC accounts 211 and 216 plus net income less $20M of Storm Uri-related infused equity.

Conclusion: The Company's use of a higher equity capitalization ratio in Calculation 4 results in a WACC greater than approved in the last distribution rate case (WACC of 6.81% vs. the approved 6.71%).

The components in Calculation 4 are used in Calculation 1 to derive the tariff-required reporting of the Realized Actual Return on Equity. As discussed in Calculation 1, the Realized Actual Return on Equity amounts provided on Calculation 1, Line 4, are hard-coded numbers with a reference to Calculation 4. However, the amounts provided in Calculation 1 could not be replicated using the referenced derivation (Line 3—Calculation 4 divided by Calculation 4).

The Company's calculation uses the approved ROE of 9.5% instead of the actual return on equity.

Recommendation: The Company should modify its reference to reflect how it calculated the Realized Actual Return on Equity. The Company's supporting Excel file should also provide the actual formula instead of hard-coded values.

The calculation should be modified to include the actual debt-to-equity ratio, actual cost of long-term debt, and actual return on equity. Reporting on the actual WACC provides important information on whether the Company is over- or under-earning.

~~(Conclusion? Recommendation?)~~

Requirement: Additionally, the filing shall include an update regarding the status of the current calendar year's SSIR Project costs, projected in-service dates, and the expected schedule over the remainder of the calendar year.

Conclusion: The Company's filing did not include the status of the current calendar year's SSIR Project costs, projected in-service dates, and the expected schedule over the remainder of the calendar year.

The Public Advocate requested the Company provide the SSIR projects and their status to date. On March 17, 2022, the Company provided a cost update for the 2022 SSIR capital spend. The supplement included the Project Number, Project Name, and actual costs through February 2022 (the most recent financial close). The supplement did not include the projected in-service dates, and the expected schedule over the remainder of the calendar year.

The Company's transmittal of the information included this statement:

> As included in the cover letter filed with the SSIR Surveillance report, on a program basis, information is ". . .consistent with BHE's 2022 SSIR Application and Model filed in Application No. NG-112.1 on August 2, 2021." Various individual projects may experience changes in 2022 due to factors previously communicated in Application No. NG-101.1 quarterly meetings; supply chain and inflation. Further, the 2022 traditional construction season is yet to begin.

The approved tariff requirement for "an update regarding the status of the current calendar year's SSIR Project costs, projected in-service dates, and the expected schedule over the remainder of the calendar year" appears to be non-workable.

Recommendation: If it is not practical to provide the required current calendar year's SSIR Project costs information with the annual surveillance filing, the tariff should be updated to reflect this reality.

The approved tariff does not require a status of the prior year (2021) SSIR Projects, including actual vs. planned costs and in-service dates. Without a status report of the prior year's SSIR Projects, reviewers cannot confirm that the Company's actual prior year's SSIR activity is consistent with what was approved by the Commission. The Company should provide a list of the prior year's actual vs. planned 2021 SSIR Projects, costs, and in-service dates in the annual surveillance filing.