BEFORE THE NORTH DAKOTA PUBLIC SERVICE COMMISSION

Montana-Dakota Utilities Co. 2020 Natural Gas Rate Increase Application	))	**Case No. PU-20-379**

SURREBUTAL TESTIMONY

OF

JAMES A HEIDELL

ON BEHALF OF

THE NORTH DAKOTA PUBLIC SERVICE COMMISSION ADVOCACY STAFF

February 26, 2021

Contents

I. INTRODUCTION

Q. Please state your name, position, and business address.

A. My name is James A. Heidell. I am a Director at PA Consulting Group, Inc. (PA). My business address is 1700 Lincoln Street, Suite 3550, Denver, CO 80203.

Q. On whose behalf are you filing this testimony?

A. I am filing this testimony on behalf of the Advocacy Staff of the North Dakota Public Service Commission (the Commission or NDPSC).

Q. Are you the same James Heidell who filed direct testimony in this proceeding?

A. Yes, I am.

Q. What is the purpose of your testimony?

A. The purpose of my testimony is to:

- Summarize my assessment of the Company's estimate of loads for the rate year and evaluate if they are under-stated as a result of the COVID pandemic.
- Respond to the Montana-Dakota (the "Company") witnesses Mr. Darras and Mr. Amen criticism of my recommendation of how to allocate amongst the rate classes over $28M[1] million spent for safety improvements since the Company's prior general rate case, and expected to spend through the test year,
- Respond to Ms. Bosch, regarding my recommendations related to phase in of rates for Wahpeton / Great Plains,
- Address Ms. Bosch's arguments for a $26.05 / month charge for manual meter reading,

[1] Represents 2019-2021 Replacement spend identified by the Company Response to Advocacy Staff DR No, 5.7. The 2020 projected replacement spend was updated with actual 2020 replacement spend as provided by the Company Response to Advocacy Staff DR No, 15.4.

- Respond to Mr. Oswald's rejection of my recommended change to the wording of Montana Dakota's line extension policy (Schedule 120), and
- Respond to the criticism of the Company's witness Mr. Amen regarding my recommendation for the maximum rate increase to the residential class,

II. SUMMARY OF FINDINGS AND RECOMMENDATIONS

Q. What is your assessment of the Montana Dakota's estimate of sales for the rate year?

A. Based upon my review it is my understanding that there is no Commission approved methodology for forecasting rate year sales. I reviewed the approach used by the Company and it appears reasonable, I did not identify any systematic attempts to understate customer counts or volumes that in-turn would have the impact of improving the probability of over-recovering the target rate year revenue requirement.

Q. Based upon Montana Dakota's rebuttal testimony have you changed your recommendation on how to allocate over $28M of capital expenditures for safety?

A. No, I continue to recommend that the Commission allocate those costs based upon throughput. The Company presents its arguments as to why it should not be allocated on volume but at the same time fails to establish that the investments were made for either customers, or capacity (the Company's proposed allocation approach). In fact, the Company affirms that the investments were not made for either growth in customers or demand. A fundamental tenant of cost-of-service is that cost allocation should follow cost causation. Given the Company's acknowledgement that demand and customers were not the cost causation drivers, I continue to recommend that throughput is an equitable approach to allocate those costs.

Q. Based upon the rebuttal testimony of Ms. Bosch, do you continue to recommend that the third rate increase for Whapeton customers be delayed until the next general rate case?

A. Yes, the Whapeton customers had a rate increase in the beginning of the year as part of the Commission's approval of the Company's interim rate case and I expect they will have a second rate adjustment at the conclusion of this rate case. I continue to recommend that the final step in the rate harmonization occur at the next general rate case.

Q. Should Montana-Dakota's proposal for a $26.05 / month manual reading charge be approved?

A. No, the Company has not demonstrated the need for the charge. The Company notes that since 2007 it has only had four instances of reverting to manual meter reading. Despite the absence of a charge, there has only been one instance in North Dakota. Furthermore, the Company has not presented any evidence of the actual cost of providing manual reads to that one customer. Should the Commission determine that a charge is appropriate, my recommendation remains to have an initial enrollment charge and lower monthly charge and that should be sufficient to discourage customer requests for manual reads but still accommodate any customer's specific issues with AMR.

Q. Should the Commission approve Advocacy Staff's recommendation that the language in the line extension tariff be adjusted to be more definitive?

A. Yes, while the Company opposes that language change, they have not provided any rationale for not clarifying that customers requesting firm line extensions **shall** pay (versus "may") the cost necessary to avoid existing customers subsidizing line extensions. The term "shall" is used in the Interruptible Gas Service Extension Policy, Schedule 119, as well.

Q. Based upon the rebuttal testimony of Mr. Amen have you modified your recommendation that the maximum residential class rate increase be held to 10%?

A. No, Mr. Amen argues that my ten percent cap is arbitrary. However, it is not more, or less arbitrary then Mr. Amen's proposal to allocate the rate increase. While Mr. Amen presents arguments as to why customer classes should pay their share of the cost of service, he fails to acknowledge that his cost allocation is at best an approximation. I continue to recommend that the Commission treat the cost-of-service study as a guideline and not an immutable analysis of cost responsibility. Furthermore, I recommend that the Commission consider the economic circumstances of residential customers in deciding what is an equitable allocation of the rate increase. These circumstances include the unemployment in the state, the decline in real household income, and the unknown economic growth in the state based upon potential policy changes at the federal level.

III. REVIEW OF MONTANA DAKOTA'S RATE YEAR SALES FORECAST

Q. Has Montana Dakota challenged your assessment of the rate year sales forecast?

A. No, the Company's rebuttal testimony did not challenge my assessment.

Q. Why are you addressing the rate year sales forecast in your surrebutal testimony?

A. On February 3, 2021 the Commission held a work session including Advisory Staff to review potential issues in the rate case. The sales forecast and how it addressed COVID was one of those issues.

Q. What potential concern was raised at the February 3 work session?

A. There was a concern of how rate year sales volumes were calculated given the impact of COVID pandemic. The revenue requirement associated with residential non-commodity costs are recovered based upon a fixed charge by customer. Consequentially, if customer counts for the rate year are under-estimated the Company will potentially over recover the revenue requirement. Alternatively, the non-residential revenue requirement is recovered primarily through volumetric charges although there is a customer charge component. If volumes for the rate year are under-estimated, then the Company will potentially over-recover the revenue requirement.

In any rate case with a future rate year there is always the issue of accuracy of the forecasts. The COVID pandemic creates additional challenges in the forecast both due to its impact on customer count and sales volumes in 2020 and concerns about the pace of the recover from COVID restrictions in 2021 and recovery from the current recession that started in 2020.

Q. Did the Company make any explicit adjustment for COVID and the recession?

A. The Company based its forecast of customers and volumes for 2021 based upon projections using 2019 normalized volumes as a starting point and then applying historical customer escalation rates for two years to derive the 2021 estimates.[2] In one sense the Company adjusted for COVID by not using 2020 actual customers and volumes. However, there is an implicit assumption that 2021 returns to the trajectory as if COVID and the recession did not happen.

Q. What is a potential issue of using actual residential customer counts from 2020 as the basis of the 2021 forecast?

A. The policy of not disconnecting customers during the pandemic could potentially over-state the number of residential customers.

Q. Is it reasonable to assume that the sales and customers growth used for 2021 will reflect growth from 2019 and ignoring the impact of the pandemic and the recission?

A. While I did not develop an econometric forecast for sales, I reviewed the Moody's Analytics February 2021 macro-economic forecast of gross state product, employment, and households for North Dakota. A summary of the data is shown in the chart below.

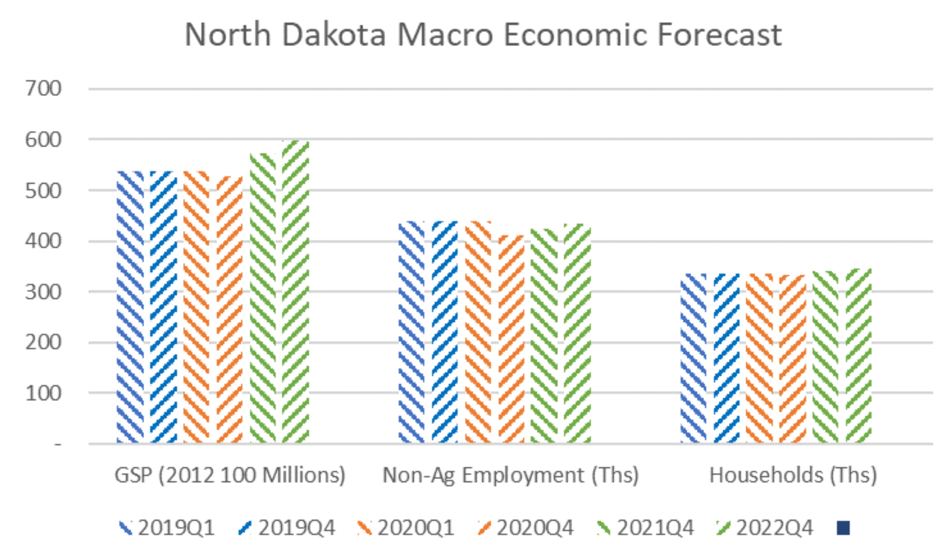
The Moody's forecast is for households to continue to grow at a compound average growth rate (CAGR) of 1% between 2019 and 2021 versus the Company's assumption of a 0.47% residential customer growth for Montana-Dakota.[3] The lower growth rate used by the Company could suggest that customers are understated and the class allocated revenue will be overstated. However, it is difficult to draw a definitive conclusion. First, the Moody's growth rate is for the state and not the service territory. Second, not all household growth necessarily translates into an additional gas customers or Montana-Dakota gas customers.

Employment is expected to decrease at a CAGR of 1% while gross state product is expected to return to pre-COVID levels in the first quarter of 2021. This is a potential indication that the Company assuming pre-2020 historical growth rates for non-residential customer growth

[2] This method was used primarily for the residential and firm general rate classes. The projected volumes for other heat sensitive classes, and non-heat sensitive classes, were held constant at 2019 levels.

[3] The residential customer growth including Wahpeton customers is 0.485%. Analysis based off of Statement F, Schedule F-1

may overstate customer growth and hence sales volumes. The implication is that non-residential forecast may not result in over recovery of the associated revenue requirement.



Source: Moody's Analytics – February 2021

Q. Based upon your review of the Moody's Analytics data are you recommending that the sales volumes be adjusted?

A. No, my review does not constitute a forecast, it is no more than one reasonableness check that the Company did not systematically underestimate the customers to increase the likelihood of over-recovering the revenue requirement.

IV. ALLOCATION OF CAPITAL COSTS FOR DIMP PROGRAM

Q. Please summarize the issue with regards to allocation of costs associated with the DIMP program?

A. The issue is what is the equitable way to allocate the safety related cost associated with approximately $28M of capital costs since the last rate case that are associated with the Company's Distribution Integrity Management Program (DIMP) and the Company's analyses of safety related investment need outside the DIMP. My recommendation is that the costs be allocated on class throughput while Mr. Amen recommends that the allocation be based customer and class contribution to peak day demand based upon his averaging of his zero-intercept and minimum system models.

Q. Please summarize your understanding of Mr. Darras objection to your recommendation to allocate the DIMP capital expenditures to each rate class on the basis of throughput?

A. Mr. Darras states:

> "Annual Throughput is not one of the categories of risk in the DIMP Model"[4]

Q. Is customer or peak day demand one of the categories of risk used to identify necessary expenditures under the DIMP program?

A. No, Mr. Darras states that the drivers of the capital expenditures, the risk factors, are not driven by customers or demand.

> "The assessment of these risk factors that determine the prioritization and replacement of high-risk pipelines with the Company's distribution system are separate from the design standards and criteria, localized peak capacity requirements of the distribution grid, customer density, rural density versus urban location, adjacent infrastructure, and other factors that drive pipeline construction costs."[5]

Q. Why does it matter what the drivers of incurring the $28M of capital costs are?

A. A fundamental principal of embedded cost allocation studies is that cost allocation should be based upon cost causation.[6] In addition, Bonbright identifies that a fundamental principal is that costs should be allocated fairly and NARUC identifies the concept that jointly used assets should be recovered under the "Common Good Principle".[7]

Q. Does this give the Commission specific guidance on how to allocate the costs of the DIMP program?

[4] Rebuttal testimony of Mr. Darras p 4, lines 7 – 8.
[5] Prefiled Rebuttal Testimony of Mr. Darras, pp 3-4 lines 19 – 23 & lines 1-2.
[6] Electric Utility Cost Allocation Manual, NARUC February 1991.
[7] Cost of Service Study & Rate Design, Jason N. Rauch, National Association of Regulatory Utility Commissioners, March 2014.

A. No, unfortunately not. The Company has stated that neither customer, demand, nor throughput are factors in the cost causation. Furthermore, fairness is a subjective measure that is ultimately determined by regulatory commissions in the case of investor owned utilities. My recommendation of using throughput is based upon my perspective of fairness and my conclusion is that investments in safety are necessary and are a common good that benefits both Montana-Dakota gas customers as well as non-customers.

Q. Why should the Commission reject Mr. Amen's arguments for allocating safety investments on the average of the zero-intercept method and minimum system method?

A. Mr. Amen dogmatically defends his use of the zero-intercept method and minimum system method despite the Company's Vice President of Engineering & Operations Services noting that demand and customer or not criteria for the investment resulting. Consequentially, Mr. Amen is divorcing cost causation from cost allocation. The NARUC cost allocation manual starts with a proposition that the capital expenditures for pipe are a function of customers and demand. However, it has been established by the Company that was not the cause of the investment. In fact, the thirty-year old NARUC cost allocation manual does not discuss how investments for safety should be allocated in a cost of service study.

Q. Do you have additional concerns with Mr. Amen's use of the minimum system method?

A. Yes, as I note in my direct testimony, the Company's data on types and sizes of pipe used in the DIMP program are inconsistent with what was historically used over the past 25 years based upon Mr. Amen's minimum system analysis. This highlights another inconsistency in Mr. Amen's analysis; not only has he failed to allocate the costs based upon the type and size of the pipes used in the program, he argues that pipe costs should be updated to current costs but the type of pipe should not be updated to reflect the current system reconstruction. As a result, he has not only divorced cost causation from cost allocation but also failed to reflect the types of cost incurred.

Q. Why is Mr. Amen's allocation of DIMP costs with his minimum system calculation inconsistent with the costs incurred?

B. Mr. Amen's minimum system calculation attributes 35.4% to customers but based upon Company supplied data the same methodology produces a 41.1% assignment to customers versus peak day demand. Mr. Amen's analysis assumes that 55% of the system is 2" PE pipe while in the DIMP replacements 72% of the pipe is 2" PE pipe. He also assumes that the 2" pipe costs $7.95 / Ft and the DIMP program costs are approximately $26.76 / Ft.[8] I recognize that Mr. Amen has constructed a model and models are rarely perfect reflections of reality. However, in this case I want to point out that his model is not reflective of the costs incurred in the DIMP program and not reflective of cost causation. Furthermore, if Mr. Amen's recommendation is approved, the Commission should not assume that the complexity of the calculation with its myriad assumption is in anyway precise or reflective of the how and why the costs were incurred.

Q. Has the Commission established a precedent for allocation of safety costs?

A. No, not that I am aware of. I reviewed the settlement agreement and order in PU-15-90 and the Commission did not approve any specific cost of service methodology. Based upon my review of the prior rate case (PU-17-295), the issue of cost allocation associated with the DIMP / SSIP was not brought up in testimony. In that rate case the Company proposed allocating all of the distribution main costs based upon an allocation of 25% based upon customers and 75% on demand. Advocacy Staff witness Mr. Pavlovic commented on issues related to the SSIP program and recommended removing $5.5M of investments related to the SSIP, but did not address the related cost allocation although he indicated that he did not favor the Company's minimum system method.[9] The cost allocation for mains was not addressed in settlement and the parties agreed that the settlement agreement did not establish any precedent.

> "It is agreed this Settlement Agreement is a negotiated settlement agreement subject to approval by the Commission. This Settlement Agreement does not establish any principle or precedent, nor adopt or recommend any specific type of

[8] Montana Dakota Response to Advocacy Staff Data Request 15-1.
[9] Direct Testimony of Mr. Pavlovic, Docket PU-17-295 p 15 lines 16 – 18.

expense or rate base for any future proceeding, nor any principle of precedent regarding rate design methodology."[10]

The Commission did not address cost of service in its order approving the settlement.

V. MANUAL METERING READING CHARGE

Q. Please summarize your proposal with regards to charging for manual meter reading?

A. My proposal is to have a one-time enrollment charge of $100 and a monthly charge of $13.50. My recommendation is based upon creating a disincentive to reverting to manual meter reading but at the same time accommodate customers who believe they have a valid reason to revert back to manual reads

Q. What is your understanding of the Montana- Dakota's objection to your recommendation to have a higher enrollment fee and lower monthly charge versus the Company's proposal for a monthly charge of $26.05?

A. Ms. Bosch advocates that the monthly charge is more appropriate since it is based upon the Company's estimate of the cost of a manual meter read and it avoids cost shifting.

Q. What is your response to Ms. Bosch's argument for the cost-based charge?

A. First, at this point there is no evidence of any significant cost shifting since in the last 13 years the Company has only had four instances of customers reverting back to manual meter reads across all of its service territories.[11] Furthermore, only one of the four instances is in the North Dakota service territory even with the absence of a customer charge.[12] While the Company prepared an estimate of the cost of manual reading, it has not provided any evidence of the actual cost of addressing the needs of those four customers.

[10] Settlement Agreement Case No. PU-17-295 & PU-17-490, p 7.
[11] Rebuttal Testimony of Ms. Bosch, p 9 lines 17 – 19.
[12] Montana Dakota response to Advocacy Staff Data Request 14.2 b).

VI. TIMING FOR WHAPETON RATE HARMONIZATION

Q. Please summarize your recommendation for the rate phase-in of the Wahpeton customers to Montana-Dakota?

A. I recommended that the Company implement a feedback process to understand the clarity of the phase-in communication with the Great Plains customers as well as a staff training program. I also recommended that the Company postpone the second phase of their proposed two-phase rate harmonization process until their next rate case.

Q. Has Montana Dakota challenged your recommendation for a feedback process?

A. The Company stated that they are willing to work with Commission Staff to ensure that the communication to Wahpeton customers is clear. I still recommend that the Company set up an ongoing feedback process from the Wahpeton customers to understand the bill's insert messages clarity, and modify future bill insert messages and possibly add additional Communication channels if necessary.

Q. Has Montana Dakota challenged your recommendation to postpone the second rate adjustment phase-in of Wahpeton customers until the next rate case?

A. Although the Company is not opposed to delaying the second phase until the next rate case, they are continuing to push for the original two-phase schedule stating the following.

> "… the Company continues to support the proposed phase-in plan presented as it advances the objective of one North Dakota gas operations by providing natural gas service in North Dakota under one gas tariff. Any delay simply moves the target integration date down the road to another rate case".

The Company fails to provide an explanation for why they would be opposed to moving the target integration. As a result, I continue to recommend that the second phase, of the two-phase integration, should be postponed until the Company's next rate case.

VII. LINE EXTENSION POLICY

Q. Please summarize your proposal with regards to modifying the language in Schedule 120?

A. I proposed changing the language in Schedule 120, Firm Gas Service Extension Policy, to remove some Company discretion and potential customer discrimination. Specifically, my recommendation is to change the word "may" to "shall". This change would parallel the wording in Schedule 119.

> "The Company may require customer or developer cost participation if the estimated capital expenditure is not cost justified." should be changed to "The Company **shall**….".

Q. What is your understanding of the Montana- Dakota's objection to your proposed wording change?

A. I am not clear why Mr. Oswald opposes making the language consistent with Rate 119. Mr. Oswald only states "The Company does not see a need for the recommended language change".[13]

Q. What is your response to Mr. Oswald's objection to the language change?

A. The impetus for my proposed language change is discussions with NDPSC Advocacy Staff and concerns that there may be some subsidization on line extensions given that there is inherent subjectivity in determining whether some component of the cost of the line extension may be associated with future system growth or needed for reliability. The substitution of "shall" for "may" will not remove that subjectivity but makes it clear that the customer is obligated to pay the cost attributed to extending service and the Company may not waive that obligation. It is not clear why the Company objects to the change if they agree that existing customers should not subsidize line extensions.

Q. Has the Company provided a credit to line extensions due to attributing part of the costs to system improvements?

[13] Rebuttal Testimony of Mr. Oswald, p 6 lines 18 – 19.

A. Yes, the Company identified eight projects in the last five years where system costs were excluded from the line extension charges.[14] The excluded system costs totaled $300,737.

Q. What is the recommendation with regards to treatment of the excluded costs?

A. The recommendation is to exclude these costs on the basis that there is no formula or policy that established these costs as 'system' related and based upon the current tariff wording the Company has flexibility to not charge the customer the full cost. The issue is that absent a formal policy there is no way to determine if the costs are truly system related and no way for the Advocacy or other parties to demonstrate otherwise.

VIII. ALLOCATION OF THE RATE INCREASE

Q. What is the Company's proposal for allocating the revenue increase to the residential class versus your recommendation?

A. Mr. Amen is proposing a 12.52% increase revised downward to 11% based upon the Company's revised revenue requirement.[15] My recommendation is that the residential class be assigned a maximum rate increase of 10% of the bundled rate.

Q. What is your understanding of Mr. Amen's objections to your proposal?

A. Mr. Amen states that the 10% threshold appears arbitrary and maintains that the $5.54 increase in the residential customer charge does not constitute rate shock.

Q. How do you address Mr. Amen's criticism that the 10% increase appears arbitrary?

A. First, I will acknowledge that the proposed ten percent is my judgement. However, the ten percent cap is no more, or less arbitrary than the allocation scheme that Mr. Amen proposes in his prefiled direct testimony. His allocation scheme ultimately is only his judgement.

Q. What is your response to Mr. Amen's conclusion that a 11% or 12.52% increase does not constitute rate shock?

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[14] Montana Dakota response to Advocacy Staff data request 15-5.
[15] Rebuttal Testimony of Mr. Amen, p 30, lines 8 – 9.

A. I agree with Mr. Amen that the term "rate shock" is not a well defined term in the context of utility rate making. I also note that Mr. Amen states the following:

> "Within the context of cost allocation and rate design, some would argue that strict adherence to cost causation in setting class revenue responsibility can result in significant rate differences for many customers, causing adverse and disruptive impacts on customers; and therefore rate shock."[16]

His statement highlights two concerns: whether his cost of service study is in fact an analysis of strict cost causation and his basis for assuming that the rate increase will not be adverse and disruptive

Q. Is it your conclusion that Mr. Amen's cost of service study is a strict adherence to cost causation?

A. No, I have already highlighted why Mr. Amen's allocation of DIMP capital costs is not a strict adherence to cost causation. The fact that Mr. Amen averages two different approaches that have disparate results for allocating distribution pipe is a further indication that the Company's cost of service study is only a guideline for identifying cost causation. My conclusion is that any characterization of Montana Dakota's gas utility cost-of-service study as a strict adherence to cost causation is at best an exercise in false precision.

Q. How do you think about rate shock to residential customers and whether it would "cause adverse and disruptive impacts"?

A. As I previously acknowledged, the term "rate shock' is not a well defined term. However, in evaluating whether over a ten percent rate increase would be disruptive I considered factors such as household income, unemployment, and uncertain prospects for North Dakota's economy.

The Company's revised proposal in rebuttal is for a $5.54 increase (from $20.85 to $26.39) in the monthly charge under Rate Schedule 60. This is a 26.6% increase in the residential delivery rate. At the same time while median household income increased over the last few years prior to the onset of COVID pandemic, the real median household income in North Dakota at the end of 2019 was below 2015.

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[16] Rebuttal Testimony of Mr. Amen, p 31, lines 9 – 12.

While the unemployment rate in North Dakota dropped from a high of 9.1% in May 2020, the current rate is 4.1% and is above the pre-COVID rate of 2.0%.[17] Even though the unemployment rate has come down, I also note that the labor force participation rate has decreased so that the number of people deemed eligible to work but not working has increased.

Other factors to consider in residential rate impacts over the next couple of years are potential federal policies that impact the state's oil and gas extraction industry, a potential increase in corporate tax rates that would increase rates, and near term increases in gas costs due to the freeze in Texas in February 2021. I note that there are uncertain prospects for economic recovery for the state. Approximately 11% of the state's GDP in 2019 was associated with mining, gas, and oil extraction.[18]

Q. Will the residential rate increase be over 10% if the Commission accepts Advocacy Staff's recommendations regarding the revenue requirement and ROE?

A. Under the Advocacy Staff's recommendation, I expect that the overall residential rate increase will be 6.98% and the increase in the delivery component will be 16.85%.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. Yes.

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17 https://data.bls.gov/timeseries/LASST380000000000003?amp%253bdata_tool=XGtable&output_view=data&include_graphs=true

18 https://apps.bea.gov/regional/downloadzip.cfm

STATE OF NORTH DAKOTA

PUBLIC SERVICE COMMISSION

Montana-Dakota Utilities Co.
2020 Natural Gas Rate Increase Application

Case No. PU-20-379

VERIFICATION

STATE OF ___Colorado________)
) ss.
COUNTY OF __Summit________)

James A. Heidell, being first duly sworn on oath, deposes and states that he has read the testimony and exhibits submitted in the above captioned matters under his name, that they were prepared by him or under his direction, that he knows the contents thereof, and that the same are true and correct to the best of his knowledge and belief.

J. a. Heidell
James A. Heidell

Subscribed and sworn to before me this 25 day of February 2021.

SALVADOR I MIRANDA
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20204022957
MY COMMISSION EXPIRES JUL 1, 2024

Notary Public
My Commission Expires: Jul 1, 2024