

BEFORE THE PUBLIC UTILITIES BOARD OF MANITOBA
CENTRA GAS MANITOBA INC.
COST OF SERVICE METHODOLOGY REVIEW

Pre-Filed Testimony of Brian C. Collins

On behalf of

Koch Fertilizer Canada, ULC

June 8, 2022



Project 11193

TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION.....	1
1.1 OVERVIEW.....	1
2.0 SUMMARY OF RECOMMENDATIONS.....	2
3.0 ALLOCATION OF TRANSMISSION AND DISTRIBUTION PLANT.....	2
3.1 Postage Stamp Ratemaking.....	6
4.0 DIRECT ASSIGNMENT OF HIGH-PRESSURE PLANT TO CUSTOMERS WHERE APPROPRIATE.....	6
5.0 NEAR-TERM RATE IMPACT MEASURE FOR THE SPECIAL CONTRACT CLASS AND POWER STATION CLASS.....	8
Qualifications of Brian C. Collins.....	Appendix A
Prefiled Evidence of Brian C. Collins in 2019/2020 GRA.....	Appendix B

1 **1.0 INTRODUCTION**

2 This Pre-filed Testimony has been prepared by Brian C. Collins, Managing Principal with
3 Brubaker & Associates, Inc. (“BAI”) on behalf of Koch Fertilizer Canada, ULC (“Koch”) in
4 Brandon, Manitoba. Mr. Collins’ qualifications are provided in Appendix A. Mr. Collins
5 presents an analysis and review of Centra Gas Manitoba Inc.’s (“Centra”) cost of service
6 methodology as directed by the Public Utilities Board of Manitoba (“PUB”) in Order No. 152119
7 which followed Centra’s 2019/20 General Rate Application (“GRA”). Mr. Collins presented
8 testimony with respect to the appropriate cost of service for Koch in that GRA proceeding which
9 is provided in Appendix B. In providing this report with a focus on cost causation related to
10 Koch, Mr. Collins acknowledges his role is to provide opinion evidence to the PUB that is fair,
11 objective and non-partisan.

12 **1.1 OVERVIEW**

13 Centra retained Atrium Economics LLC to review its cost of service methodology. Atrium
14 prepared and issued a report dated May 20, 2021. Centra prepared a Cost of Service
15 Methodology Review including its prepared cost of service methodology dated June 15, 2021.
16 This Review with Appendices was filed with the PUB on June 15, 2021.

17 Basically, Atrium’s and Centra’s recommendations are consistent with the
18 recommendations presented by Mr. Collins in the 2019/20 GRA as shown in Appendix B. The
19 Atrium and Centra filings demonstrate that Koch received an unwarranted rate increase in
20 2019/20 which would be and should be corrected with the approval of the proposed Interim
21 Measure as recommended by Centra. The proposed Interim Measure should be adopted as
22 soon as possible. According to Centra data, Koch is paying an unwarranted approximate
23 \$70,000 per month excess charge which will continue until the Interim Measure is adopted.
24 The total overcharge being paid by Koch, based on Centra data, is approximately \$100,000 per

1 month. Therefore, the Interim Measure only partially addresses the unfair rates being charged
2 to Koch. It is clear the Interim Measure is long overdue and should be adopted by the Board.

3 **2.0 SUMMARY OF RECOMMENDATIONS**

4 Mr. Collins' recommendations below rely on his review of the Atrium and Centra reports, as
5 well as Atrium's and Centra's responses to Information Requests. Mr. Collins
6 recommendations are as follows:

- 7 • The review and recommendations presented by Atrium are in accord with sound cost
8 of service theory, based on cost causation and should be adopted.
- 9 • Centra's response to Atrium's recommendations move its cost of service methodology
10 to a more fair and theoretically sound approach reflective of cost causation and should
11 be adopted.
- 12 • Centra's proposed interim measure to correct a portion of the overcharge to Koch
13 should be adopted immediately to correct the unreasonable rate increase imposed on
14 Koch in the 2019/20 GRA.
- 15 • Centra should reduce the Koch Special Contract rate to cost as soon as possible.

16 **3.0 ALLOCATION OF TRANSMISSION AND DISTRIBUTION PLANT**

17 Atrium and Centra recognize that cost causation dictates that transmission plant and the
18 demand related portion of distribution plant be allocated on demand (Design Day Peak). I am
19 in agreement with the Atrium and Centra review in that regard and will not repeat those findings
20 except to indicate that the peak demand method is reflective of cost causation and that the
21 peak and average ("P&A") method, is not.

22 The P&A method is not reflective of cost causation, lacks logic and is inconsistent with
23 system design. A system designed to meet average demand would be incapable of providing

1 service to customers on all days colder than average. The P&A method erroneously uses load
2 factor to determine the percentage of fixed delivery system investment allocated on system
3 throughput. As load factor, which is a measure of system efficiency, increases, the percentage
4 of transmission plant cost allocated on system throughput increases. Large manufacturing
5 customers use gas consistently throughout the year and increase system load factor.
6 Therefore, the P&A method is illogical because it allocates even more costs to those customers
7 that increase system load factor and punishes efficient usage. I am not aware of any studies
8 or reports supporting the proposition that load factor equates to the cost of transmission
9 investment related to average throughput.

10 The P&A method tempers costs between high load factor and low load factor customers
11 classes and is a compromise to an allocation method using peak demand. Because the P&A
12 method tempers costs between high and low load factor customer classes, it is not a true cost
13 allocation method because it introduces non-cost causal considerations (load factor and
14 average demand) in the cost allocation process. This is inappropriate. Non-cost causal factors
15 should be addressed in the rate design process. In several responses to CAC, Centra appears
16 to agree that non-cost causal elements should be removed from the cost allocation process.¹

17 All customers benefit from a more efficient system and more throughput without an
18 increase in demand makes the system more efficient and reduces costs to all ratepayers. If
19 the system load factor improves (increased throughput without an increase in peak demand),
20 the system would be more efficient and fixed cost per unit would decrease. However, the P&A
21 method's cost allocation formula would unfairly increase the allocation on throughput and
22 punish the higher load factor classes that are responsible for increasing the efficiency of the
23 system. The use of average throughput penalizes customers that exhibit efficient gas

¹Responses to CAC: 1-1a, 1-1b, 1-3a, 1-4a, 1-4b, 1-10b.

1 consumption (higher load factors). Under-utilization of the system should not be rewarded
2 since it results in higher per unit prices for all customers.

3 The Federal Energy Regulatory Commission (“FERC”) does not use the P&A method
4 to allocate interstate transmission pipelines in the United States. FERC has been using the
5 Straight Fixed-Variable method since its Order 636 in 1992. In decades prior to that Order,
6 FERC did use some methods that allocated a portion of pipeline investment on throughput but
7 that portion was not based on load factor as done in the P&A method. For decades, the
8 Straight Fixed-Variable method has been used and the allocation of pipeline investment has
9 been allocated on a demand basis. The P&A method would be in direct conflict with FERC’s
10 allocation of transmission investment of interstate pipelines.

11 The P&A is not reflective of cost causation. Centra’s system must be sized to meet its
12 design day peak demand. A system designed to meet the average demand could not serve
13 the load on days in which the demand is above the average, which would be almost all of the
14 cold winter days. Average demand is obviously not reflective of cost or the basis for the design
15 of the Centra system.

16 In conclusion, if a gas system were designed solely on the basis of average demand,
17 temperature sensitive heating customers could not be served during cold weather periods.
18 Therefore, cost causation dictates an allocation of the transmission and distribution system (to
19 the extent not related to the number of customers) on a coincident peak design day allocation
20 method, which is now correctly supported by Atrium and Centra.

21 In addition to the findings of Atrium and Centra, I would include findings of the NARUC
22 Gas Distribution Rate Design Manual which states:

23 “Demand or capacity costs vary with the quantity or size of plant and
24 equipment. They are related to maximum system requirements which
25 the system is designed to serve during short intervals and do not directly
26 vary with the number of customers **or their annual usage**. Included in
27 these costs are: the capital costs associated with production,
28 transmission and storage plant and their related expenses; the demand
29 cost of gas; and the most of the capital costs and expenses associated

1 with that part of distribution plant not allocated to customer costs, such
2 as the costs associated with distribution mains in excess of the minimum
3 size.”² (Emphasis added)

4 I agree with NARUC, Atrium and Centra that transmission and distribution cost not
5 assigned to the customer component should be allocated to classes on the basis of design
6 day demand, not annual or average usage.

7 It is important to recognize that the term “average demand” can be a misleading term.
8 Average demand as used in the P&A method is nothing more than annual throughput divided
9 by the days or hours in a year. To my knowledge, no gas transmission or distribution system
10 is designed on the basis of annual throughput or average demand. If a system were designed
11 to meet annual throughput, it would be inadequate to provide service on colder than average
12 days of the year. Systems are designed to serve the coldest day or hour of the year to provide
13 reliable service. Therefore, the use of Design Day Demand is appropriate as compared to
14 actual peak demands or the average of multiple annual peak demands because the system is
15 designed and costs incurred by Centra to meet the expected system Design Day Demand.
16 Cost allocation should follow system design and cost causation. There is no link to cost
17 causation or system cost to annual throughput. The P&A method has no basis in system
18 design or cost causation and should be rejected.

19 Furthermore, a major flaw in the P&A method is its double count of average demand in
20 the cost allocation process: once in the average allocator, and again in the peak allocator,
21 since average demand is a subset of peak demand. This penalizes high load factor classes.
22 Unlike the P&A method, other allocators such as the Design Day Demand allocator, as well as
23 the Average & Excess allocator, do not suffer from this flaw since average demand is
24 considered once in the allocation process.

²Gas Distribution Rate Design Manual prepared by NARUC Staff Subcommittee on Gas
Published by National Association of Regulatory Utility Commission, June 1989.

1 **3.1 Postage Stamp Ratemaking**

2 Postage Stamp Ratemaking basically means that all customers within a rate class are charged
3 the same rate without regard to the geographic location of the individual customers. Of course,
4 a customer class should be homogenous with customers of similar size, usage profiles, and
5 service characteristics. Implicit in this concept is that these factors result in similar cost
6 characteristics for the homogenous customers within the class. Postage stamp ratemaking is
7 used by most utilities and is appropriate for homogenous customer classes.

8 On the opposite end of the spectrum, a Special Contact Class is for a unique customer
9 with respect to size, load profile, service characteristics and cost characteristics. The Special
10 Contract customer is served with unodorized gas, at very high pressure through a basically
11 dedicated line often called a spur or radial line, between the customer and the TransCanada
12 Energy (TCPL) pipeline. This unique customer requires a specific cost of service and rate
13 reflective of Centra's cost to serve the customer. The direct assignment approach discussed
14 below provides the specific cost to serve the Special Contract customer.

15 **4.0 DIRECT ASSIGNMENT OF** 16 **HIGH-PRESSURE PLANT TO CUSTOMERS WHERE APPROPRIATE**

17 Both Atrium and Centra recommend the direct assignment of transmission main costs to the
18 Special Contract Class and to the Power Stations Class with no additional allocation of the
19 broader transmission system. This is appropriate and in accord with established cost of service
20 principals. Direct Assignment to an identifiable customer that uses only a discrete identifiable
21 portion of the system is more fair and accurate than the use of proportional loads or ratios to
22 allocate common costs used by all customers. I explained the appropriateness of this
23 approach and the uniqueness of the isolated service to the Special Contract class in my

1 prefiled evidence in the 2019/20 GRA attached as Appendix B. The Atrium report³ sets forth
2 in detailed schematic showing the specific service from TCPL to the Special Contract customer
3 and explains the recommended direct assignment as the most appropriate method to reflect
4 cost of service to the Special Contract customer. I agree with the Atrium report in that regard.

5 The direct assignment approach uses booked investment cost from accounting records
6 and is fundamentally more accurate than using load ratios to allocate system costs to a unique
7 Special Contract customer. The vast majority of system cost do not and cannot provide service
8 to Koch. Centra uses a discrete spur to connect Koch and a power station to the TCPL pipeline
9 as shown in the schematic diagram contained in the Atrium report. This information was
10 basically provided to Koch in discovery in 2019/20 and discussed in the prefiled evidence
11 shown in Appendix B.

12 The validity and preference for direct assignment is discussed in the NARUC Gas
13 Distribution Rate Design Manual as follows:

14 "Once a definition of cost is decided upon, it is then necessary to assign
15 costs to specific customer classes. Generally speaking, these costs can
16 be divided into two broad categories: direct costs and common costs.
17 Direct costs are those which are incurred only to provide service to a
18 particular customer class. Common costs are incurred in providing
19 service to more than one class. **The assignment of direct costs is**
20 **straight-forward and should not be subject to debate.** Common
21 costs are another matter. By definition, such costs are incurred for the
22 benefit of several rate classes and their costs cannot be directly
23 assigned. Instead, it is necessary to allocate these costs among the
24 rate classes using some reasonable allocation method."⁴ (Emphasis
25 added)

26 I agree that this assignment is straight-forward and should not be subject to debate. It
27 is also fair and reasonable and should be adopted by the Board.

³Centra Gas Manitoba Inc. 2021 Cost of Service Methodology review Appendix 1, June 15, 2021, page 18.

⁴Gas Distribution Rate Design Manual prepared by NARUC Staff Subcommittee on Gas Published by National Association of Regulatory Utility Commission, June 1989, pages 18-19.

1 It appears that Atrium agrees with the NARUC Gas Distribution Rate Design Manual in
2 that regard. In response to CAC, Atrium stated the following:

3 “No embedded or marginal cost studies were performed by Atrium.
4 Subsidies occur when one or more customer classes inappropriately
5 bears responsibility for the costs associated with the service for another
6 customer class. Subsidies cannot be the result of a correctly assigned
7 direct cost. When costs are directly assigned, a direct relationship has
8 been determined between cost causation and responsibility for the
9 customer to pay for those costs. In contrast, subsidies can occur when
10 direct assignments of cost are not possible as the determination of
11 appropriate allocation factors is only a best effort to approximate the
12 relationship between cost causation and the allocated result of the cost
13 of service study.”⁵

14 It should also be noted that Atrium is correct in its conclusion that the appropriate cost
15 allocation methodology should be based on normal operations not an abnormal or unique
16 emergency situation that may never occur.⁶

17 **5.0 NEAR-TERM RATE IMPACT MEASURE** 18 **FOR THE SPECIAL CONTRACT CLASS AND POWER STATION CLASS**

19 Centra shows an illustrative impact of its proposed cost of service methodology on Figure 10:
20 Allocation of Revenue Requirement by Customer Class. That illustration shows that the
21 Special Contract Class requires a \$1,229,000 decrease to achieve parity with cost of service.

22 Figure 11 in the Centra filing of June 15, 2021 shows an Interim Measure which affects
23 only the Special Contract class and Power Station Class. The Interim Measure would reduce
24 the annual rate paid by Special Contract Class by \$838,000. The Footnote 1 to Figure 11
25 indicates that the \$838,000 reduction is required to bring the Special Contract Class to the
26 level of non-gas costs in effect prior to the 2019/20 GRA.

27 The Interim Measure proposed by Centra is appropriate as a partial, but immediate
28 correction to the unwarranted increase imposed in the 2019.GRA. The \$838,000 reduction is

⁵Response to CAC/Atrium 1-4c, page 1 of 1.

⁶Response to CAC/Atrium 1-4e.

1 only 68% of the reduction which appears to be required to achieve parity with cost of service
2 (\$838,000 ÷ \$1,229,000) but does reverse the increase to the Special Contract Class in the
3 2019/2020 GRA. To put this into perspective, the Special Contract Class has been paying an
4 approximate \$70,000 per month overcharge since the increase was imposed in the 2019/20
5 GRA. The Interim Measure would correct this overcharge without increasing rates to other
6 customers.⁷ It should be noted that the entire overcharge with respect to cost, as shown in
7 Centra's filing is more than \$100,000 per month. The current basic monthly charge to the
8 Special Contract Class is \$187,693. The monthly charge would be reduced to \$117,847 when
9 the interim proposed rates are approved. The cost based monthly charge would be \$85,241.⁸
10 The remainder of the overcharge should be corrected as soon as possible.

⁷Confirmed in Data Response to Koch/Centra 1-1g.

⁸Koch/Centra response 1-3.

Qualifications of Brian C. Collins

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

5 A I am a consultant in the field of public utility regulation and a Managing Principal with
6 the firm of Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory
7 consultants.

8 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND WORK
9 EXPERIENCE.**

10 A I graduated from Southern Illinois University Carbondale with a Bachelor of Science
11 degree in Electrical Engineering. I also graduated from the University of Illinois at
12 Springfield with a Master of Business Administration degree. Prior to joining BAI, I was
13 employed by the Illinois Commerce Commission and City Water Light & Power
14 ("CWLP") in Springfield, Illinois.

15 My responsibilities at the Illinois Commerce Commission included the review of
16 the prudence of utilities' fuel costs in fuel adjustment reconciliation cases before the
17 Commission as well as the review of utilities' requests for certificates of public
18 convenience and necessity for new electric transmission lines. My responsibilities at
19 CWLP included generation and transmission system planning. While at CWLP, I
20 completed several thermal and voltage studies in support of CWLP's operating and
21 planning decisions. I also performed duties for CWLP's Operations Department,

1 including calculating CWLP's monthly cost of production. I also determined CWLP's
2 allocation of wholesale purchased power costs to retail and wholesale customers for
3 use in the monthly fuel adjustment.

4 In June 2001, I joined BAI as a Consultant. Since that time, I have participated
5 in the analysis of various utility rate and other matters in several states and before the
6 Federal Energy Regulatory Commission ("FERC"). My career at BAI includes vast
7 experience regarding the review of electric and gas utilities' cost of service. I have filed
8 or presented testimony before the Arkansas Public Service Commission, the California
9 Public Utilities Commission, the Delaware Public Service Commission, the Public
10 Service Commission of the District of Columbia, the Florida Public Service
11 Commission, the Georgia Public Service Commission, the Guam Public Utilities
12 Commission, the Idaho Public Utilities Commission, the Illinois Commerce
13 Commission, the Indiana Utility Regulatory Commission, the Kentucky Public Service
14 Commission, the Public Utilities Board of Manitoba, the Minnesota Public Utilities
15 Commission, the Mississippi Public Service Commission, the Missouri Public Service
16 Commission, the Montana Public Service Commission, the North Carolina Utilities
17 Commission, the North Dakota Public Service Commission, the Public Utilities
18 Commission of Ohio, the Oklahoma Corporation Commission, the Oregon Public Utility
19 Commission, the Rhode Island Public Utilities Commission, the Public Service
20 Commission of Utah, the Virginia State Corporation Commission, the Public Service
21 Commission of Wisconsin, the Washington Utilities and Transportation Commission,
22 and the Wyoming Public Service Commission. I have also assisted in the analysis of
23 transmission line routes proposed in certificate of convenience and necessity
24 proceedings before the Public Utility Commission of Texas.

1 In 2009, I completed the University of Wisconsin – Madison High Voltage Direct
2 Current (“HVDC”) Transmission Course for Planners that was sponsored by the
3 Midwest Independent Transmission System Operator, Inc. (“MISO”).

4 BAI was formed in April 1995. BAI and its predecessor firm have participated
5 in more than 700 regulatory proceedings in forty states and Canada.

6 BAI provides consulting services in the economic, technical, accounting, and
7 financial aspects of public utility rates and in the acquisition of utility and energy
8 services through RFPs and negotiations, in both regulated and unregulated markets.
9 Our clients include large industrial and institutional customers, some utilities and, on
10 occasion, state regulatory agencies. We also prepare special studies and reports,
11 forecasts, surveys and siting studies, and present seminars on utility-related issues.

12 In general, we are engaged in energy and regulatory consulting, economic
13 analysis and contract negotiation. In addition to our main office in St. Louis, the firm
14 also has branch offices in Corpus Christi, Texas; Detroit, Michigan; Louisville, Kentucky
15 and Phoenix, Arizona.

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BEFORE THE PUBLIC UTILITIES BOARD OF MANITOBA
CENTRA GAS MANITOBA INC.
2019/20 GENERAL RATE APPLICATION

Written Evidence of Brian C. Collins

Public Redacted Version
(All Confidential Information Has Been Redacted as [REDACTED])

On behalf of

Koch Fertilizer Canada, ULC

June 21, 2019



Project 10787

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Table of Contents

**Table of Contents to the
Written Evidence of Brian C. Collins**

	<u>Page</u>
Summary of Conclusions and Recommendations	2
Cost of Service and Rate Design Principles.....	3
Centra’s Transmission Service to Koch	6
Centra's Gas Cost of Service Study.....	8
Direct Assignment of Costs to the Special Contracts Customer Class	10
Qualifications of Brian C. Collins	Appendix A

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 1

1 **Q.1. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q.2. WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation with Brubaker & Associates, Inc.
6 (“BAI”), energy, economic and regulatory consultants.

7 **Q.3. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my evidence.

9 **Q.4. ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10 A I am appearing on behalf of Koch Fertilizer Canada, ULC (“Koch”) in Brandon,
11 Manitoba.

12 **Q.5. PLEASE DESCRIBE KOCH AND ITS INTEREST IN THIS PROCEEDING.**

13 A Koch is a large industrial customer of Centra Gas Manitoba Inc. (“Centra”) and
14 purchases large quantities of gas that are delivered over the Centra system. Koch is
15 the only customer in Centra’s Special Contracts customer class. Under Centra’s
16 proposal, the Special Contracts customer class would see an increase of approximately
17 64.8% or ██████████ for the delivery of customer-owned gas. Such an increase would
18 adversely impact Koch.

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 2

1 **Q.6. WHAT IS THE SUBJECT MATTER OF YOUR TESTIMONY?**

2 A The subject matter of my testimony is directed toward Centra's proposed natural gas
3 cost of service study, its proposed revenue allocation, and the resulting impact of its
4 proposals on Koch.

5 I have examined the testimony and exhibits presented by Centra in this
6 proceeding with respect to cost of service and revenue allocation, and I will comment
7 on the propriety of these proposals, and make certain recommendations.

8 **Summary of Conclusions and Recommendations**

9 **Q.7. PLEASE BRIEFLY SUMMARIZE YOUR CONCLUSIONS AND**
10 **RECOMMENDATIONS IN THIS PROCEEDING.**

11 A Centra's proposed gas rates for Koch erroneously assume that Centra's entire gas
12 transmission system is used to provide natural gas delivery service to Koch. Centra
13 has allocated a slice of its entire system to Koch in its cost of service study, and the
14 increase to Koch is based on this flawed cost of service result.

15 Centra's service to Koch is accomplished using discrete, readily identifiable
16 facilities and does not involve the majority of Centra's transmission facilities.
17 Accordingly, it is my recommendation that Centra's proposal to base Koch's proposed
18 rates on a portion of all system costs should be rejected.

19 Instead, Koch's rates should be established in a manner that reflects the reality
20 that only a small portion of Centra's transmission system actually can be used to serve
21 Koch. Based on cost data provided by Centra for the facilities serving Koch, Centra's
22 existing rates charged to Koch are more than adequately recovering the plant's cost of
23 service.

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 3

1 Centra has not provided access to its cost of service model in order for Koch to
2 verify its results. A cost of service study that on its face results in an increase of
3 approximately 65% for one of Centra's largest customers while at the same time
4 indicates that Centra's overall cost of service has decreased, should give pause to the
5 Public Utilities Board of Manitoba ("PUB"). Therefore, I recommend that the PUB not
6 rely on Centra's cost of service study to establish rates at this time. Furthermore, based
7 on my analysis of the actual cost to serve Koch using the direct assignment approach,
8 Koch is actually entitled to a rate reduction, and not an increase as proposed by Centra
9 for the Special Contracts customer class in this proceeding. My analysis specific to
10 Koch's cost of service demonstrates that Centra's cost of service study is flawed.

11 **Cost of Service and Rate Design Principles**

12 **Q.8. COULD YOU PLEASE EXPLAIN THE RATEMAKING PROCESS AND THE DESIGN**
13 **OF RATES?**

14 A The ratemaking process has three steps. First, we must determine the utility's total
15 revenue requirement and whether an increase or decrease in revenues is necessary.
16 Second, we must determine how any increase or decrease in revenues is to be
17 distributed among the various customer classes. A determination of how many dollars
18 of revenue should be produced by each class is essential for obtaining the appropriate
19 level of rates. Finally, individual tariffs must be designed to produce the required
20 amount of revenues for each class of service and to reflect the cost of serving
21 customers within the class.

22 The guiding principle at each step should be cost of service. In the first step--
23 determining revenue requirements--it is universally agreed that the utility is entitled to

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 4

1 an increase only to the extent that its actual cost for providing of service to customers
2 has increased. If current rate levels exceed the utility's revenue requirement, a rate
3 reduction is required. In short, a utility's rate revenues should equal its actual cost of
4 service. The same principle should apply in the second two steps. Each customer
5 class should, to the extent practicable, produce revenues equal to the cost of serving
6 that particular class, no more and no less. This may require a rate increase for some
7 classes and a rate decrease for other classes. The standard tool for determining this
8 is a class cost of service study which shows the rates of return for each class of service.
9 Rate levels should be modified so that each class of service provides approximately
10 the same rate of return. Finally, in designing individual tariffs, the goal should also be
11 to relate the rate design to the cost of service so that each customer's rate tracks, to
12 the extent practicable, the utility's cost of providing service to that customer.

13 When it can be determined that specific facilities serve a customer or customer
14 class, the cost associated with these facilities should be directly assigned to the
15 customer or customer classes.

16 **Q.9. WHY IS IT IMPORTANT TO ADHERE TO BASIC COST OF SERVICE PRINCIPLES**
17 **IN THE RATEMAKING PROCESS?**

18 A The basic reasons for using cost of service as the primary factor in the ratemaking
19 process are equity and stability.

20 **Q.10. HOW IS THE EQUITY PRINCIPLE ACHIEVED BY BASING RATES ON COSTS?**

21 A When rates are based on cost, each customer (to the extent practical) pays what it
22 costs the utility to serve him, no more and no less. If rates are not based on cost of

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 5

1 service, then some customers contribute disproportionately to the utility's revenues by
2 subsidizing service provided to other customers. This is inherently inequitable.

3 **Q.11. PLEASE DISCUSS THE STABILITY CONSIDERATION.**

4 A When rates are closely tied to costs, the earnings impact on the utility of changes in
5 customer use patterns will be minimized as a result of rates being designed in the first
6 instance to track changes in the level of costs. Thus, cost-based rates provide an
7 important enhancement to a utility's earnings stability, reducing its need for filings for
8 rate increases.

9 From the perspective of the customer, cost-based rates provide a more reliable
10 means of determining future levels of costs. If rates are based on factors other than
11 costs, it becomes much more difficult for customers to translate expected utility-wide
12 cost changes (i.e., expected increases in overall revenue requirements) into changes
13 in the rates charged to particular customer classes (and to customers within the class).
14 From the customer's perspective, this situation reduces the attractiveness of
15 expansion, as well as of continued operations, because of the lessened ability to plan.

16 **Q.12. WHEN YOU SAY "COST," TO WHAT TYPE OF COST ARE YOU REFERRING?**

17 A I am referring to the utility's "embedded" or actual accounting costs of rendering service;
18 that is, those costs which are used by the Commission in establishing the utility's overall
19 revenue requirement.

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 6

1 **Q.13. WOULD YOU PLEASE COMMENT ON THE BASIC PURPOSE OF A COST OF**
2 **SERVICE STUDY?**

3 A After determining the overall cost of service or revenue requirement, a cost of service
4 study is used to allocate the cost of service among customer classes. A cost of service
5 study shows how each customer class contributes to the total system cost. For
6 example, when a class produces the same rate of return as the total system, it is
7 returning to the utility revenues just sufficient to cover the costs incurred in serving it
8 (including a reasonable authorized return on investment). If a class produces a below-
9 average rate of return, it may be concluded that the revenues are insufficient to cover
10 all relevant costs. On the other hand, if a class produces a rate of return above the
11 average, it is paying revenues sufficient to cover the cost attributable to it, and in
12 addition, is paying part of the cost attributable to other classes who produce a
13 below-average rate of return. The class cost of service study is important because it
14 shows the class revenue requirement, as well as the rate of return under current and
15 any proposed rates.

16 **Centra's Transmission Service to Koch**

17 **Q.14. PLEASE PROVIDE A BASIC DESCRIPTION OF THE DELIVERY SERVICE THAT**
18 **CENTRA PROVIDES TO THE KOCH PLANT IN BRANDON, MANITOBA.**

19 A Koch purchases gas at its own expense and risk and has that gas delivered through
20 the TransCanada Pipeline ("TCPL") to the Centra delivery system. Centra delivers the
21 customer-owned gas from TCPL over a relatively short distance to the Koch plant.
22 Centra serves Koch via two transmission pipelines connected to TCPL: the NPS 6
23 diameter line which is 21 km, and the NPS 12 diameter line, which is 28 km. In addition

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 7

1 to the transmission mains, Centra also provides service via other facilities including a
2 meter, a distribution station and structures, and land and land rights associated with
3 the transmission mains.

4 **Q.15. SINCE CENTRA'S LAST RATE CASE HAVE THE FACILITIES CHANGED THAT**
5 **SERVE KOCH?**

6 A According to Centra's response to IGU/CENTRA II-1m, there have been minor
7 investments in the facilities to serve Koch. Specifically, [REDACTED] in investment has
8 been made since the last rate case for erosion protection related to the NPS 12
9 diameter transmission line.

10 A rebuild of the Centra primary station that connects to TCPL is currently
11 underway and is estimated by Central to cost [REDACTED] for the work associated with
12 Koch supply. This rebuild is scheduled to be in service in August of 2019.

13 **Q.16. HAS CENTRA IDENTIFIED ANY OTHER TRANSMISSION MAINS IN ITS SYSTEM**
14 **THAT CAN BE USED TO SERVE KOCH?**

15 A According to the response to IGU/CENTRA II-1d, Koch could be served by the Brandon
16 Combustion Turbine Pipeline. But service from this line is tenuous at best because the
17 availability of this pipeline to supply Koch would depend on the operating status of the
18 Brandon Combustion Turbines. Only reduced supply may be available. Furthermore,
19 if a specific segment of the NPS 12 pipeline that is directly serving Koch is out of
20 service, Centra can't provide gas delivery to Koch even with the redundant facilities.

1 **Q.17. DO THE TRANSMISSION MAINS THAT SERVE KOCH SERVE CUSTOMERS**
2 **OTHER THAN THE KOCH PLANT?**

3 A No. According to Centra's response to IGU/CENTRA II-1c, the NPS 12 and NPS 6
4 transmission mains serving Koch do not serve any other customers during normal
5 operations.

6 **Centra's Gas Cost of Service Study**

7 **Q.18. HAVE YOU REVIEWED THE GAS COST OF SERVICE STUDY PERFORMED BY**
8 **CENTRA IN THIS PROCEEDING?**

9 A I have reviewed only the results of Centra's cost of service study in this proceeding.
10 Centra did not provide the complete cost of service study to Koch. Therefore, I have
11 not been able to validate the results of the cost of service study, including the allocation
12 of costs to the Special Contracts customer class.

13 **Q.19. DID CENTRA PROVIDE ANY EXPLANATION FOR ITS FAILURE TO PROVIDE THE**
14 **COST OF SERVICE STUDY?**

15 A Centra claims the study is confidential and as a result, will not provide access to Koch
16 or its advisers who are subject to the usual non-disclosure agreements.

17 **Q.20. HOW DOES CENTRA ALLOCATE COSTS TO THE SPECIAL CONTRACTS CLASS**
18 **IN ITS COST OF SERVICE STUDY?**

19 A Centra erroneously allocates a slice of its entire transmission system to the Special
20 Contracts class based on ratios of loads and throughput. Centra specifically uses the

1 Peak and Average method to allocate the costs of its system of mains to customer
2 classes.

3 **Q.21. WHAT IS THE RESULT OF CENTRA'S COST OF SERVICE STUDY ON KOCH?**

4 A Based on the results of the cost of service study, the cost for the Special Contracts
5 customer class is [REDACTED]. This is an increase of [REDACTED] or 64.8% compared to
6 current rate revenues of [REDACTED].

7 **Q.22. WHAT IS THE OVERALL INCREASE FOR CENTRA?**

8 A Centra is actually indicating a decrease of \$2,480,000 on a total Company basis in its
9 filing.

10 **Q.23. ARE THE RESULTS OF THE COST OF SERVICE STUDY WITH RESPECT TO THE**
11 **SPECIAL CONTRACTS CUSTOMER CLASS REASONABLE?**

12 A No. Koch is the only customer in the class and the facilities serving it are readily
13 identifiable. Koch doesn't utilize facilities that Centra is allocating to it via its slice of
14 system allocation in its cost of service study. A basic and fundamental tenet of cost of
15 service is the principle of cost causation. Therefore, allocating Koch a slice of the cost
16 its entire transmission system, including the cost of new facilities related to transmission
17 system expansion installed since the last rate that are not capable of providing service
18 to Koch, is inappropriate and does not reflect cost of service.

1 **Direct Assignment of Costs to the Special Contracts Customer Class**

2 **Q.24. WHAT WOULD BE A BETTER APPROACH FOR ALLOCATING COSTS TO THE**
3 **SPECIAL CONTRACTS CUSTOMER CLASS THAN CENTRA'S SLICE OF SYSTEM**
4 **ALLOCATION APPROACH?**

5 A A better approach would be to allocate the actual costs of the facilities actually used to
6 provide service to the class using direct assignment. This would best reflect cost of
7 service principles. The costs for providing service to the class are easily identifiable. It
8 is preferable to directly allocate costs to a class using direct assignment when costs
9 are easily identifiable.

10 **Q.25. WHAT ARE THE COSTS OF THE FACILITIES SERVING KOCH?**

11 A Based on the response to IGU/CENTRA II-1g, the net book cost of the two transmission
12 mains directly serving Koch is [REDACTED]. This is the rate base amount for the mains
13 directly serving Koch. In comparison, Centra has allocated approximately [REDACTED]
14 in rate base to Koch in its cost of service study.

15 In addition, Centra has provided an estimate of the rate base for the other
16 facilities serving Koch, including the meter and other distribution and transmission
17 assets. This amount is [REDACTED]. Thus, the total rate base for facilities directly serving
18 Koch is [REDACTED]. If the total cost of redundant facilities are considered, the rate
19 base amount is [REDACTED].

1 **Q.26. HAVE YOU ESTIMATED THE COST OF SERVICE FOR KOCH BASED ON THE**
 2 **DIRECT ASSIGNMENT APPROACH OF ASSIGNING COSTS TO KOCH?**

3 A Yes. Based on the cost data provided, the following table is a summary of the cost to
 4 serve Koch based on the direct assignment approach.

Table 1	
Cost to Serve Koch Based on <u>Direct Assignment Approach</u>	
<u>Description</u>	<u>Direct Facility Cost (000)</u>
Current Revenue	██████
Cost of Service	
Oper. Expenses	██████
Other Revenue	██████
Depreciation & Amort.	██████
Taxes	██████
Finance Expense	██████
Corporate Allocation	██████
Net Income	██████
Total	██████
Overcharge	██████

5 On this basis, Koch is currently paying rates that are in excess of cost of its cost of
 6 service.

7 **Q.27. BASED ON THIS LEVEL OF RETURN AT CURRENT RATES, IS AN INCREASE**
 8 **FOR KOCH WARRANTED?**

9 A No. It should actually receive a cost reduction if Centra properly applied the principles
 10 of cost causation in its cost of service study.

1 **Q.28. IF CENTRA CLAIMS THAT KOCH SHOULD ALSO BE DIRECTLY ALLOCATED**
 2 **THE COST OF REDUNDANT FACILITIES, HOW WOULD THIS IMPACT KOCH'S**
 3 **COST OF SERVICE?**

4 A Though this would not be my primary recommendation for Koch's cost of service, this
 5 is shown in Table 2 below.

Table 2	
Cost to Serve Koch Based on Direct Assignment Approach	
<u>Description</u>	<u>Direct Facility Cost With Redundancy (000)</u>
Current Revenue	████████
Cost of Service	
Oper. Expenses	████████
Other Revenue	████████
Depreciation & Amort.	████████
Taxes	████████
Finance Expense	████████
Corporate Allocation	████████
Net Income	████████
Total	████████
Overcharge	████████

6 Even when 50% of the total cost of redundant facilities are considered in Koch's
 7 cost of service, rates are adequate. Fifty percent is a reasonable allocation of the
 8 redundant facilities because these redundant facilities serve other customers and
 9 cannot always be relied upon to serve 100% of Koch's demand.

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 13

1 **Q.29. PLEASE SUMMARIZE YOUR POSITION WITH RESPECT TO CENTRA'S**
2 **PROPOSED GAS DISTRIBUTION RATES FOR KOCH IN THIS PROCEEDING.**

3 A The rates resulting from Centra's recommended class cost of service are
4 unreasonable, as those rates are premised upon a cost allocation that bears no
5 relationship to the manner in which Centra incurs costs to serve Koch. To ensure that
6 there is a strong and accurate relationship between the rates charged Koch and the
7 manner in which Centra incurs costs to provide that service, costs allocated to Koch
8 should be based on direct assignment. Directly assigning the actual cost of the facilities
9 that serve Koch is infinitely more accurate than the erroneous allocations performed by
10 Centra.

11 Koch is a unique customer that requires specific analysis in the performance of
12 a fair and accurate cost of service study. Often, company-wide allocations that are
13 justified in serving classes with large numbers of customers at various geographic
14 locations make no sense in accurately allocating cost required to serve a single
15 extremely large customer such as Koch. Cost allocations to Koch that result in
16 excessive rates can undermine Koch's ability to remain competitive and a strong
17 contributor to Manitoba's economy.

18 Centra has not provided access to its cost of service model in order for Koch to
19 verify its results. A cost of service study that on its face results in an increase of
20 approximately 65% for one of Centra's largest customers, while at the same time
21 indicates that Centra's overall cost of service has decreased, should give pause to the
22 PUB. Therefore, I recommend that the PUB not rely on Centra's flawed cost of service
23 study to establish rates at this time. Furthermore, based on my analysis of the actual
24 cost to serve Koch using the direct assignment approach, Koch's current rates are more
25 than adequate to recover its cost of service. In fact, the Special Contracts class is

Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 14

1 actually entitled to a rate reduction according to my analysis, and not an increase as
2 proposed by Centra. My analysis specific to Koch demonstrates that Centra's cost of
3 service study is flawed.

4 **Q.30. DOES THIS CONCLUDE YOUR EVIDENCE?**

5 A Yes, it does.

Qualifications of Brian C. Collins

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,
3 Chesterfield, MO 63017.

4 **Q WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

5 A I am a consultant in the field of public utility regulation and a Principal with the firm of
6 Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7 **Q PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A I graduated from Southern Illinois University Carbondale with a Bachelor of Science
9 degree in Electrical Engineering. I also graduated from the University of Illinois at
10 Springfield with a Master of Business Administration degree. Prior to joining BAI, I was
11 employed by the Illinois Commerce Commission and City Water Light & Power
12 ("CWLP") in Springfield, Illinois.

13 My responsibilities at the Illinois Commerce Commission included the review of
14 the prudence of utilities' fuel costs in fuel adjustment reconciliation cases before the
15 Commission as well as the review of utilities' requests for certificates of public
16 convenience and necessity for new electric transmission lines. My responsibilities at
17 CWLP included generation and transmission system planning. While at CWLP, I
18 completed several thermal and voltage studies in support of CWLP's operating and
19 planning decisions. I also performed duties for CWLP's Operations Department,
20 including calculating CWLP's monthly cost of production. I also determined CWLP's

Appendix A
Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 2

1 allocation of wholesale purchased power costs to retail and wholesale customers for
2 use in the monthly fuel adjustment.

3 In June 2001, I joined BAI as a Consultant. Since that time, I have participated
4 in the analysis of various utility rate and other matters in several states and before the
5 Federal Energy Regulatory Commission (“FERC”). I have filed or presented testimony
6 before the Arkansas Public Service Commission, the California Public Utilities
7 Commission, the Delaware Public Service Commission, the Florida Public Service
8 Commission, the Idaho Public Utilities Commission, the Illinois Commerce
9 Commission, the Indiana Utility Regulatory Commission, the Kentucky Public Service
10 Commission, the Minnesota Public Utilities Commission, the Missouri Public Service
11 Commission, the Montana Public Service Commission, the North Dakota Public
12 Service Commission, the Public Utilities Commission of Ohio, the Oregon Public Utility
13 Commission, the Rhode Island Public Utilities Commission, the Virginia State
14 Corporation Commission, the Public Service Commission of Wisconsin, the
15 Washington Utilities and Transportation Commission, and the Wyoming Public Service
16 Commission. I have also assisted in the analysis of transmission line routes proposed
17 in certificate of convenience and necessity proceedings before the Public Utility
18 Commission of Texas.

19 In 2009, I completed the University of Wisconsin – Madison High Voltage Direct
20 Current (“HVDC”) Transmission Course for Planners that was sponsored by the
21 Midwest Independent Transmission System Operator, Inc. (“MISO”).

22 BAI was formed in April 1995. BAI and its predecessor firm has participated in
23 more than 700 regulatory proceeding in forty states and Canada.

Appendix A
Written Evidence of
Brian C. Collins
Centra Gas Manitoba Inc. 2019/20 General Rate Application
Page 3

1 BAI provides consulting services in the economic, technical, accounting, and
2 financial aspects of public utility rates and in the acquisition of utility and energy
3 services through RFPs and negotiations, in both regulated and unregulated markets.
4 Our clients include large industrial and institutional customers, some utilities and, on
5 occasion, state regulatory agencies. We also prepare special studies and reports,
6 forecasts, surveys and siting studies, and present seminars on utility-related issues.

7 In general, we are engaged in energy and regulatory consulting, economic
8 analysis and contract negotiation. In addition to our main office in St. Louis, the firm
9 also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

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