Public Utilities Board

Régie des services publics

Order No. 109/22

ORDER IN RESPECT OF A REVIEW OF CENTRA GAS MANITOBA INC.'S COST OF SERVICE METHODOLOGY

October 12, 2022

BEFORE: Marilyn Kapitany, B.Sc. (Hon), M.Sc., Panel Chair
Susan Nemec, FCA, FCPA, Member

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1.0 EXECUTIVE SUMMARY

By this Order the Public Utilities Board ("Board") approves changes to Centra Gas Manitoba Inc.'s ("Centra") cost of service methodology and approves a time-limited interim rate measure. The Board's findings are summarized in section 1.5 and are based on the approach that cost causation is paramount in establishing a cost of service methodology.

1.1 How a Cost of Service Study Works

For ratemaking purposes, a utility's customers are grouped into customer classes according to their service characteristics. Most of the costs incurred by a utility are shared by different customer classes to varying degrees, as any piece of infrastructure may serve more than one class. A cost of service study is an organized, methodical process to determine how those costs are to be allocated among the utility's customer classes.

Customers are grouped into customer classes based on similar service requirements and consumption patterns. A utility's cost of service methodology determines how the utility categorizes the various costs it incurs in its cost of service study, and how those costs are to be allocated among different customer classes. The principle behind a cost of service study is that not every customer class contributes to the costs incurred by the utility in the same manner. For example, a customer class served directly off a transmission line may not contribute to the costs of operating a distribution system.

A cost of service study consists of three steps. For Centra, those steps are as follows:

1. Step One: Functionalize or categorize the total annual costs into one of six gas utility functions (Production, Pipeline, Storage, Transmission, Distribution, Onsite).

2. Step Two: Classify the functionalized cost into one of three categories (Energy, Demand, Customer) based on the system design and operating characteristics that cause the costs to be incurred.

3. Step Three: Allocate the functionalized and classified costs among Centra's customer classes. Costs that are clearly attributable to only a single customer class may be directly assigned to that class instead of being allocated to several classes.

1.2 Principles Underlying the Cost of Service Methodology Review

The Board took the approach that cost causation is paramount in establishing a cost of service methodology. A cost of service methodology must focus on the actual factors that cause costs to be incurred. This means factors that are not cost-causal should not influence a cost of service study. A cost of service methodology should also not pre-judge the outcome by incorporating ratemaking principles such as fairness and equity. Those factors are to be left to a general rate application.

1.3 Approach to the Hearing

Centra retained Atrium Economics, LLC ("Atrium") as an independent cost of service expert. Centra's application included Atrium's report and recommendations. Centra adopted most, but not all, of Atrium's recommendations. At the outset of the hearing, Interveners accepted Atrium as an independent expert.

The hearing involved several interveners but took place largely in writing, with a single day reserved for oral submissions.

1.4 Key Issues

The following were the key issues in the Board's review of Centra's cost of service methodology:

- With respect to Centra's downstream Transmission, Distribution, and Onsite functions,
    - Whether the Demand-related costs of the Transmission and Distribution functions should be allocated based on a coincident peak approach or whether Centra should retain the existing peak and average approach that considers average demand in addition to peak demand,

- Whether costs related to distribution mains, which are currently classified 67% as Demand and 33% as Customer, should be reclassified based on an updated diameter-length study or a change in methodology to a minimum system study,

- Whether the allocation of service lines and meters functionalized as Onsite should be revised based on updated service line and meter studies, and

- Whether the Mainline customer class should continue to be allocated costs functionalized as Distribution, or whether the Mainline class should only be responsible for distribution-related costs directly assigned to that class;

- Whether costs related to transmission pipelines serving the Special Contract and Power Station customer classes should be directly assigned to those classes or continue to be allocated with Centra's other Transmission function costs;

- Whether the Demand-related costs of Centra's upstream Pipeline and Storage functions should continue to be allocated based on the existing peak and average methodology, or whether the methodology should be changed to either of the following:

  - A seasonal resource stack-based approach, which considers the contribution of each asset to the peak demand, or

  - A combination of the coincident peak method for the Pipeline function and a winter demand in excess of summer demand method for the Storage function;

- Whether demand-side management costs should continue to be directly assigned to participating customer classes, or whether the costs should be allocated based on some other method; and

- Whether the change in methodology to a direct assignment of costs to the Special Contract and Power Station classes justifies an interim rate measure by which the Special Contract rates are decreased and the Power Station rates increased.

The review also dealt with several other issues further described below.

1.5 Board Findings

1.5.1 Transmission, Distribution, and Onsite Functions

The Board finds that the coincident peak design day methodology is the best manner of allocating costs related to the Demand component of Centra's Transmission and Distribution functions and approves the use of that method.

The Board finds that the minimum system method is a more accurate manner of classifying Centra's distribution mains than the existing diameter-length method. The Board directs Centra to prepare a minimum system study. If the study is completed before the next general rate application, Centra is to reclassify its distribution mains based on the outcome of the study. If the study is not ready in time for the next general rate application, Centra may retain the existing 67% Demand / 33% Customer split for the purposes of that application.

The Board directs Centra to update the service line and meter studies used to analyze the costs of customer service lines and gas meters by the next general rate application.

The Board declines to change the manner in which costs included in the Distribution function are allocated to the Mainline customer class.

1.5.2 Direct Assignment to the Special Contract and Power Station Classes

The Board finds that the direct assignment of costs related to the transmission pipelines and associated facilities serving only the Special Contract and Power Station customer classes is appropriate and approves the use of direct assignment for those assets.

1.5.3 Pipeline and Storage Functions

The Board finds that the seasonal resource stack-based approach, which was Atrium's preferred methodology, is the most accurate manner of allocating the Demand-related costs attributable to Centra's Pipeline and Storage functions. However, the Board accepts the alternate approach recommended by Atrium, and preferred by Centra, of allocating these costs using the coincident peak design day methodology for the Pipeline function

and the winter demand in excess of summer demand methodology for the Storage function. The Board considers this to be a more practical, and less complex, cost allocation methodology.

1.5.4 Demand-Side Management Costs

The Board finds that the existing manner of directly assigning demand-side management costs to customer classes according to their participation in demand-side management programs should be retained, as this method best reflects cost causation and most closely aligns the costs with the benefits of demand-side management.

1.5.5 Interim Rate Measure for the Special Contract and Power Station Classes

The Board approves an interim rate measure under which the non-gas portion of rates paid by the Special Contract class reverts to the rates in effect before Centra's 2019/20 General Rate Application. The resulting revenue deficiency is to be recovered through rates payable by the Power Station class.

Unless the Board orders otherwise, the interim rate measure is limited to a one-year period that coincides with Centra's gas year. It begins on November 1, 2022 and ends on October 31, 2023.

1.5.6 Other Matters

In addition to the Board findings described above, the Board, in this order:

- Retains the existing cost allocation methodology for operation and maintenance, customer service, and administrative expenses, but directs Centra to update its unaccounted-for gas (UFG) study;
- Approves cost of service amendments resulting from Centra's rate restructuring;
- Approves the elimination of the Co-op customer class;

- Formalizes the receipt of certain information in confidence under the *Board's Rules of Practice and Procedure*; and

- Issues directives and provides guidance regarding compliance filings and the review of the changed cost of service methodology.

A glossary of technical terms and abbreviations used in this order is included as Appendix A.

2.0 DESCRIPTION OF CENTRA'S NATURAL GAS SYSTEM

All natural gas consumed in Manitoba must be brought in from outside the province, as Manitoba does not produce any marketable natural gas. The main conduit to bring gas into Manitoba is a transmission pipeline that extends from Alberta across Manitoba and into the eastern provinces and the United States. This natural gas pipeline is owned by TC Energy and known as the Canadian Mainline. For many years, it was known as the TransCanada Pipelines Mainline.

Centra primarily purchases natural gas from Western Canada at two natural gas hubs in Alberta known as the AECO hub and the Empress hub. To supplement these purchases, for example during periods of seasonal peak demand, Centra may also purchase natural gas from other North America natural gas market locations or suppliers.

To transport gas from Western Canada to Manitoba, Centra contracts for transportation capacity on the Canadian Mainline and, for gas purchased at the AECO hub, a short distance of pipeline transportation to the Empress hub (located near the Alberta-Saskatchewan border and the start of the Canadian Mainline) on a different pipeline called the Nova Gas Transmission system.

In planning its gas supply, Centra must account not only for total yearly gas consumption (energy), but also for the instantaneous demand for gas at any particular moment in time.

A water supply analogy illustrates the difference between energy and demand. For example, a community is continuously supplied with water over the course of a year to meet its total consumption (energy). However, when there is a fire in the community and the fire department uses a significant amount of water, an instantaneous peak water delivery requirement (demand) occurs on the system for a short period of time. Consequently, the water delivery system must be capable of meeting both long-term and short-term customer demand for water. Centra's natural gas utility system and operations face similar challenges.

Most natural gas consumed in Manitoba is burned for heating purposes such as residential or commercial space heating, water heating, or grain drying. Natural gas is also consumed as part of various industrial processes, including its use as a chemical feedstock to make products such as agricultural fertilizer.

Because the demand for natural gas as a heating fuel is much higher in Manitoba in the winter than in the summer, Centra must plan for higher pipeline flows in the winter than in the summer. Since 1993, Centra has made use of U.S. gas storage and transportation arrangements to reduce the amount of upstream pipeline transportation capacity required on the Canadian Mainline to supply Manitoba customers throughout the year. This provides substantial cost savings to Centra and its customers. During the summer, Centra flows additional quantities of natural gas from Western Canada into storage facilities in the United States using pipeline transportation capacity reserved on the ANR and Great Lakes Gas Transmission pipeline systems. Figure 2.1 illustrates that flow of gas into storage.

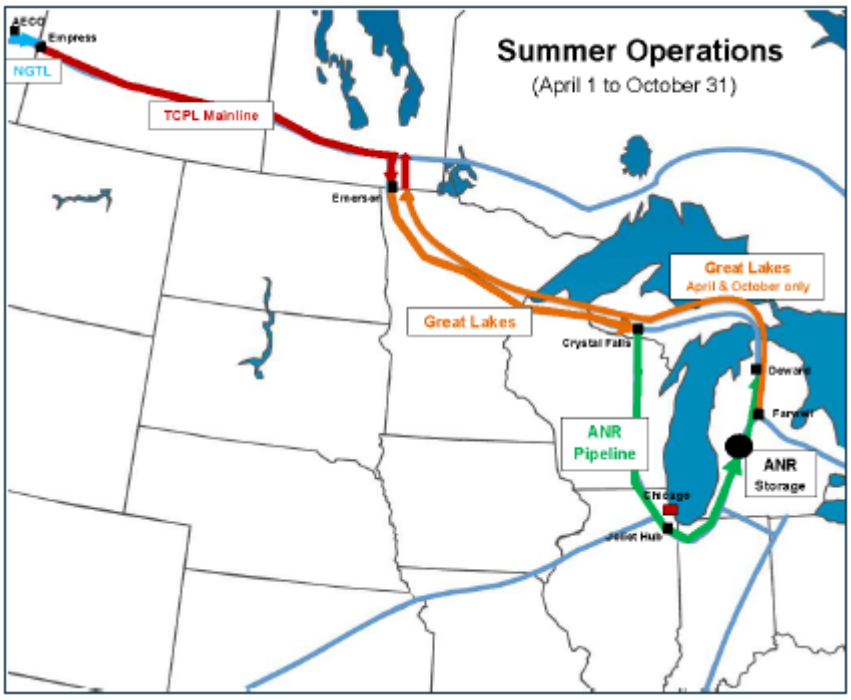

Figure 2.1 – Centra's Summer Storage Operations

During the winter, the stored gas is backhauled to Manitoba to meet a portion of Manitoba's winter seasonal demand, resulting in Centra purchasing less pipeline capacity on the Canadian Mainline than otherwise required. Backhaul is an industry term that describes the process of an upstream operator, such as Centra, intercepting gas flows for its own use and then reinjecting gas downstream out of its storage for continued flow to downstream customers. Most of the time, backhauling is a notional concept, and the direction of natural gas flow does not actually reverse, although in limited circumstances the physical flow of gas can actually change direction. Figure 2.2 illustrates Centra's backhauling out of storage.

Figure 2.2 – Centra's Winter Storage Operations

Centra's U.S. storage and transportation arrangements over the period from 2013 to 2020 were approved by the Board in Order 112/12 and are described in more detail in that order. Centra's current arrangements were reviewed as part of the 2019/20 Centra General Rate Application and approved in Board Order 108/19.

Collectively, the costs related to Centra's purchases of gas outside the province, transportation to Manitoba, and operation of the storage portfolio are referred to as its upstream costs.

Within its service territory, or downstream of the Canadian Mainline in Manitoba, Centra owns and operates its own transmission and distribution pipeline system to flow gas from the Canadian Mainline to end use customers. Centra serves approximately 290,000 customers in the residential, commercial, and industrial sectors through approximately 10,550 km of natural gas pipelines.

Centra's transmission plant, which includes steel pipelines operating at a pressure in excess of 1,900 kPa, is used to transport gas from receipt gates at various points on the Canadian Mainline to nearby customer load centres throughout Manitoba. In some cases, larger industrial customers receive gas directly from Centra's transmission system. This is because these customers require larger quantities of gas supplied at higher pressures than other types of customers in Manitoba.

Figure 2.3 illustrates Centra's transmission system in Manitoba. In the diagram, the thin light blue horizontal and vertical line marked "TCPL" is the Canadian Mainline. The thick dark blue lines on the diagram are transmission pipelines owned by Centra that transport gas into individual load centres.

Centra's transmission plant not only consists of pipelines (also known as transmission mains) but also includes all delivery meters and pressure reducing equipment (e.g. pressure regulators, gauges, valves, and fittings) located in stations at direct interconnection points on the Canadian Mainline.

At the beginning of each load centre, there is a gate station used to step down pressure and divert gas into the distribution grid. Beyond each gate station, there is a complex grid of distribution pipelines that extends toward homes or businesses. Distribution pipelines, also known as distribution mains, are typically constructed from steel or plastic materials that transport gas at pressures of 1,900 kPa or less.

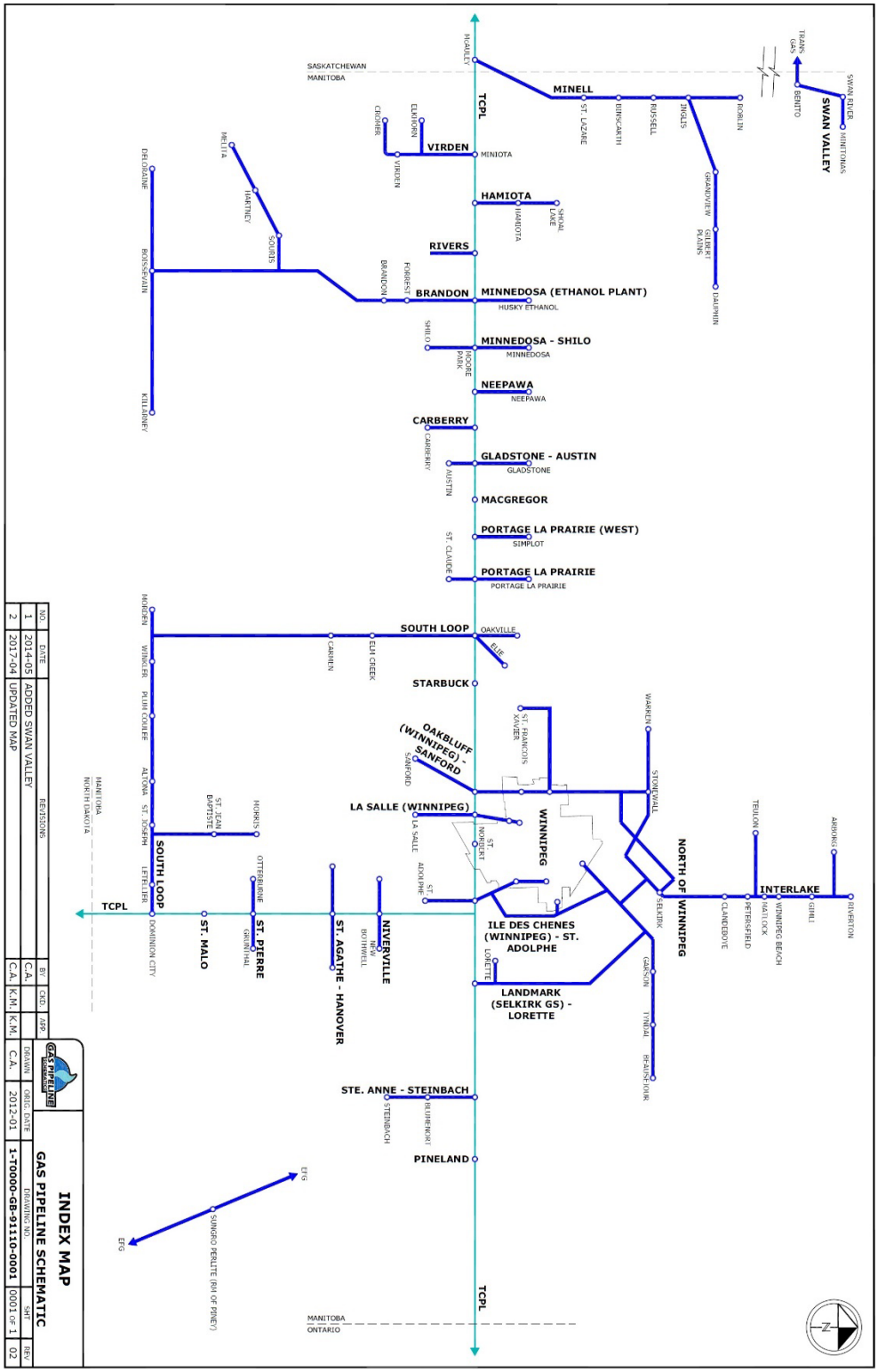

Figure 2.3 – Centra's Manitoba Transmission System

Because different customers require gas to be supplied at various pressures, Centra's distribution plant operates over different pressure ranges. For example, some large customers receive gas at intermediate pressures in the range of 700 to 1,900 kPa, while most smaller customers receive gas at pressures below 700 kPa.

Centra's distribution plant includes all pressure reducing stations downstream of its transmission plant, all farm taps and farm tap inlet piping, as well as all associated pipeline valves, fittings, distribution mains, service lines, and customer meter set assemblies.

In addition to incurring costs to acquire upstream resources (natural gas as well as its storage and transportation to Manitoba), and building, operating, and maintaining its downstream transmission and distribution plant, Centra also incurs various customer service and billing costs in order to serve its customers in Manitoba. Additional costs such as depreciation, finance expense, and taxes are also incurred by Centra as part of its ongoing operation. Centra is also allowed to earn a return on its investments, which is periodically reviewed by the Board as part of Centra's general rate applications.

Collectively, the costs related to building, operating, and maintaining Centra's transmission and distribution plant, and the costs of customer service, are referred to as its downstream costs.

3.0 CENTRA'S RATEMAKING PROCESS

3.1 Overview

As described in section 2.0, Centra incurs various costs in order to serve its customers. Collectively, these costs form Centra's revenue requirement, which is periodically reviewed by the Board during general rate applications. Once Centra's overall revenue requirement is approved by the Board, the Board approves rates to be charged to specific customer classes.

Beginning on November 1, 2022, a regular Centra gas bill will consist of a gas commodity charge, a delivery charge (higher-volume customers will also have a delivery demand charge), and a flat-rate basic monthly charge.

The gas commodity charge is based on the cost incurred by Centra to purchase natural gas to be sold in Manitoba.

The delivery charge is based on the costs incurred by Centra to transport gas to Manitoba (e.g., on the Canadian Mainline) as well as to distribute this gas through Centra's downstream transmission and distribution pipeline systems.

The basic monthly charge is based on customer-specific costs, such as Centra's customer service department, billing, gas meters, and service lines to the customers' meters.

Centra's rates are approved by the Board under *The Public Utilities Board Act*. For example, Centra's gas commodity rates are approved on an interim quarterly basis in accordance with a pre-approved rate setting methodology. Other rates are set by the Board at general rate applications or cost of gas hearings.

3.2 Steps in the Ratemaking Process

Consistent with other jurisdictions in North America, the Board's process for fixing Centra's natural gas rates follows three sequential steps:

1. Determination of Centra's approved revenue requirement – The revenue requirement reflects all the Board-approved costs forecast to be incurred to provide service to Centra's customers;

2. Completion of a cost of service study based on a cost of service methodology approved by the Board – A cost of service study allocates Centra's overall revenue requirement, which was determined at step 1, to each customer class based on cost causation principles. Cost causation refers to a determination of what or who is causing costs to be incurred by Centra, to the extent practical.

3. Determination of a Board-approved rate design – This process establishes the rates Centra is permitted to charge each customer class in order to collect the target revenue allocated to each customer class through the cost of service methodology (step 2). At the rate design step, the Board fixes the rates to be paid by each customer class for the gas commodity charge, delivery charge, and basic monthly charge.

These steps are generally completed as part of Centra's general rate applications.

This order deals with the approval of a new methodology to be used for the completion of a cost of service study, i.e., the methodology to be used for step 2 in the ratemaking process.

3.3 Purpose of a Cost of Service Study

A cost of service study may be used as an input factor when the Board fixes what it considers to be just and reasonable rates. It is a method of apportioning a utility's costs among the various classes of customers it serves. The use of a cost of service study as part of the ratemaking process is not unique to Centra. These studies are used by many utilities in North America. While the use of a cost of service study is not mandatory, the

Board has used Centra's cost of service study as an input factor in past general rate applications.

The allocation mechanisms chosen determine the portion of a utility's common or shared costs that are to be paid by each customer class. In this hearing, while the parties generally agreed on how costs were to be functionalized and classified, the issue of how costs were to be allocated was contentious.

Each customer consumes natural gas in varying amounts at different times of the day and in each season. Some customers are densely grouped together in urban areas, while others are dispersed throughout rural areas. Industrial customers who consume large quantities of gas have different service requirements than residential customers. For instance, industrial customers consume greater volumes of gas than residential customers, but their rate of flow may be more constant throughout the year. Conversely, residential customers, who generally consume gas for space heating purposes, generally have higher demand for gas during the winter season. Because of the greater volumes consumed, industrial customers have larger service lines and meters than residential customers and are usually served at higher pressures.

For rate-setting purposes, customers are grouped into various customer classes according to their similar characteristics in terms of consumption and service requirements.

In serving its customers, Centra incurs costs related to gas purchases, storage, transportation, transmission, distribution and customer service. The objective in designing a cost of service study is to select a cost allocation method to allocate these costs among Centra's different customer classes.

3.4 The Cost of Service Study Process – Functionalization, Classification and Allocation

Figure 3.1 illustrates Centra's cost of service process. The steps in the process are as follows:

1. Functionalization – Centra's costs are grouped initially into six different functions according to the functions of a gas utility:

   - Production – includes the commodity costs of gas supply purchased in Western Canada and the United States, which are either flowed directly to Manitoba or stored in the United States to help meet the Manitoba winter load. Under Centra's existing cost of service methodology, production costs currently include compressor fuel costs to transport gas to Manitoba as well as the cost of gas withdrawn from storage;

   - Pipeline – includes the fixed and variable costs of transporting gas from Alberta to Centra's receipt gates on interprovincial pipelines such as the Canadian Mainline;

   - Storage – includes the fixed and variable costs of Centra's storage arrangements, including all U.S. pipeline charges and fuel costs, but does not include the cost of the gas itself;

   - Transmission – includes the capital and operating costs of Centra's high-pressure transmission system, plus the cost of unaccounted-for gas that occurs on Centra's transmission and distribution pipeline system;

   - Distribution – includes the capital and operating costs of Centra's high-, medium- and low-pressure distribution systems; and

   - Onsite – includes the capital and operating costs associated with service lines, meters and other equipment installed on customers' premises, plus the cost of customer accounting and customer service.

   The first three of the functions described above relate to upstream costs (i.e., before Centra's transmission and distribution system), while the last three functions relate to downstream costs including for Centra's transmission and

distribution plant. The functionalization process groups the costs incurred to serve Centra's customers in order to facilitate the classification and allocation processes described below.

2. Classification – Once costs are functionalized, they are then classified according to system design and operating characteristics that cause the costs to be incurred. The three classifications used in relation to Centra's functionalized costs are as follows:

   - Energy – costs that are directly affected by commodity requirements (i.e., the volume of gas purchased);

   - Demand – costs that are directly affected by capacity requirements (i.e., the need to meet the daily peak requirement for natural gas, which is usually the gas demand on the coldest day of the year);

   - Customer – costs that are directly affected by the number of customers attached to the system.

   The classification of costs as Energy, Demand, and Customer-related is widespread among utilities. Functionalized costs may be divided into more than one classification. For example, costs functionalized as Pipeline, Storage, and Transmission are classified as either Demand or Energy. Similarly, costs functionalized as Distribution are classified as either Demand or Customer or both.

3. Allocation – Once the costs have been functionalized and classified, common costs that relate to more than one customer class are allocated among the affected customer classes. Costs that relate to only a single customer class may be directly assigned to that class instead of being allocated to multiple classes. Centra's customer classes include the following:

   - Small General Service (SGS) – Residential and small commercial customers with an annual consumption of less than 680,000 m^3;

   - Large General Service (LGS) – Medium-sized commercial and industrial customers with an annual consumption of less than 680,000 m^3;

- High Volume Firm (HVF) – Commercial and industrial customers with an annual consumption of more than 680,000 m^3;

- Mainline (ML) – Commercial and industrial customers with an annual consumption of more than 680,000 m^3 and who are served directly from Centra's transmission system or through dedicated high-pressure distribution systems;

- Interruptible (INT) – Commercial and industrial customers with an annual consumption of more than 680,000 m^3 whose service may be interrupted from time to time by Centra if there is inadequate capacity to serve them;

- Special Contract (SC) – Customers who have a separate written service agreement with Centra that governs their service;

- Power Station (PS) – Service to electrical generating stations that use natural gas to produce electricity.

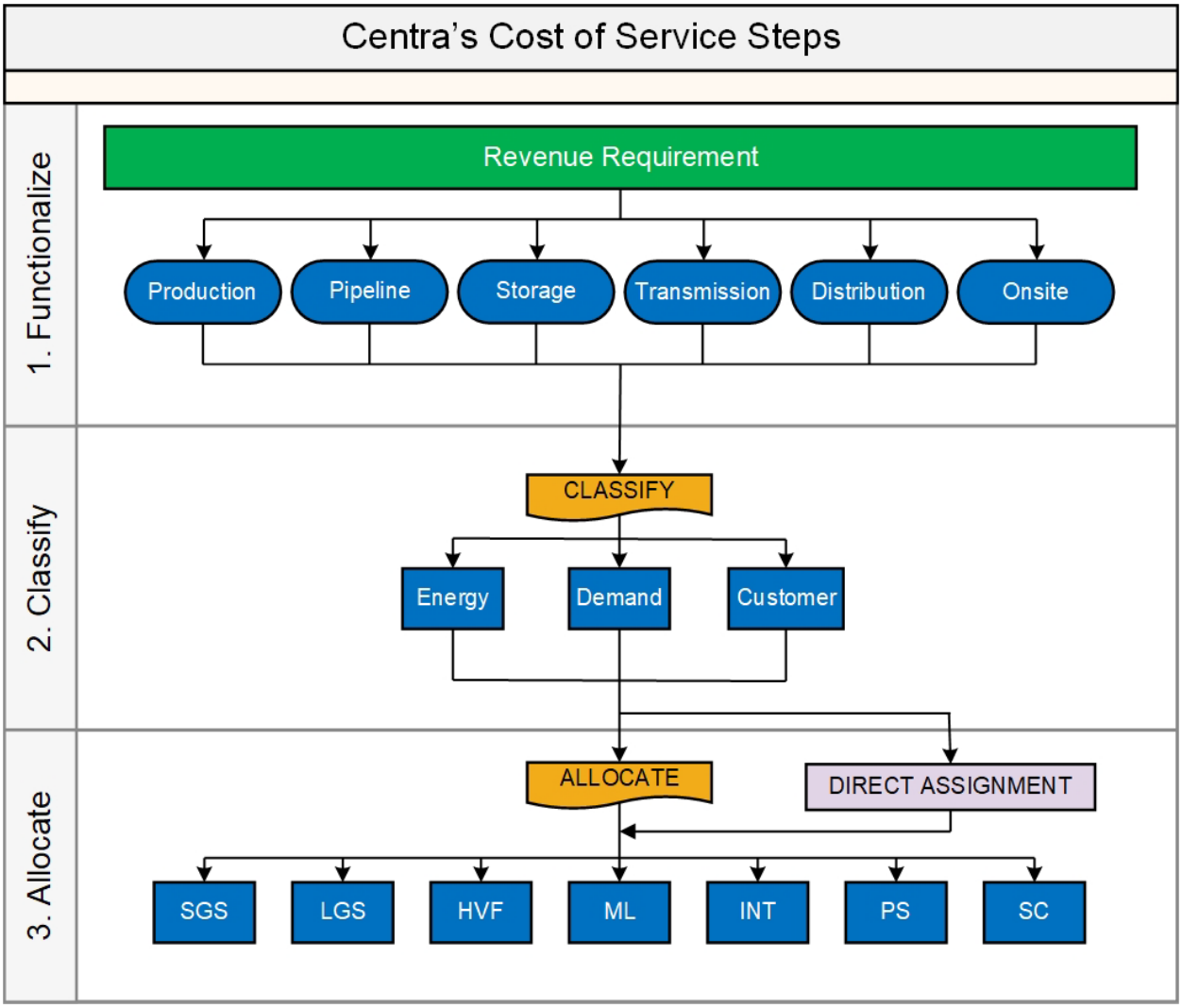

Figure 3.1 – Centra's Cost of Service Steps

3.5 Allocation Methods for Costs Classified as Demand

A significant point of contention in this hearing was to what extent certain costs should be allocated based on peak demand as opposed to a combination of peak demand and average demand. This is relevant because peak demand and average demand are not always related. For example, if a large industrial customer uses a constant flow of gas, that customer's peak demand and average demand may be the same. In contrast, a residential customer may consume small volumes of gas during the summer but much larger volumes of gas to heat their home on the coldest day of the year. For that customer, the peak demand on the coldest winter day would be significantly higher than the average demand over the course of the year.

While a cost of service study appears to be arithmetically exact, it involves a number of decisions that require the application of judgment. Several different cost of service methodologies are in use across North America, and the choice of methodology affects how costs are allocated among customer classes. In particular, methodologies differ in how they allocate costs classified as Demand, based on how much weight is given to peak demand as opposed to average demand.

The following are two common methodologies used in North America to allocate demand-related costs among different customer classes:

- Coincident Peak – This methodology assumes that a utility's investment is determined by the peak load of the utility, which could occur on a single day or be averaged over several days. Under this methodology, demand-related costs are allocated to each customer class in proportion to the class's relative contribution to the total peak demand of all classes.

- Peak and Average – This methodology allocates demand-related costs based on a combination of peak demand and average demand, using a weighting factor. It is the method currently used by Centra. Centra uses the system load factor (as explained in the glossary) to weight the average demand, and one minus the system load factor to weight the peak day demand.

4.0 BACKGROUND ON CENTRA'S COST OF SERVICE STUDY

4.1 History

The last significant review of Centra's cost of service methodology by the Board occurred in 1996. The 1996 proceeding was a combined hearing in which the Board considered both cost of service and rate design matters. The current hearing considers cost of service separately from rate design, leaving rate design matters to be considered in the next general rate application.

At the conclusion of the 1996 review, the Board issued Order 107/96, which approved a change in how Centra's Demand-related costs were to be allocated to customer classes. Specifically, the Board approved the replacement of a modified partial plant method with the peak and average method, which is still used by Centra to this day and is described in more detail in section 3.5 of this order.

The last Centra general rate application was heard by the Board in 2019. While cost of service methodology issues arose during that hearing, the Board subsequently ordered those issues to be severed and dealt with in a separate hearing. In Order 98/19, the Board stated:

> *The Board finds that all Cost of Service Study methodology and allocation issues will be severed from the current GRA and deferred to a separate generic Cost of Service Study methodology review proceeding to be held after the conclusion of the 2019/20 GRA proceeding. The Board will not hear or determine these issues in the current GRA as the evidentiary record of this proceeding is not sufficient for the Board to conduct such a full review. The Board accepts CAC's submission that individual methodology changes should not be made in isolation and should instead be considered on a complete evidentiary record on Centra's Cost of Service Study methodology.*

The Board directed Centra to file an application for a comprehensive review of its cost of service methodology by May 1, 2020. However, the COVID-19 pandemic and other

factors delayed the process and, through Orders 49/20, 130/20, and 51/21, following applications by Centra to vary the deadline, the Board ultimately extended the deadline to June 15, 2021. The Board also determined that an independent expert should be retained to review Centra's cost of service methodology. This resulted in Atrium Economics, LLC ("Atrium") being retained by Centra as an independent expert.

On June 15, 2021, Centra filed its completed cost of service methodology review application with the Board. Contained within Centra's Application was a report by Atrium that reviewed Centra's existing cost of service methodology and included recommendations as to how the methodology should be changed. As outlined in subsequent sections of this order, Centra's Application adopts most, but not all, of Atrium's recommendations.

4.2 Procedure and Scope

In the Board's first procedural order on Centra's application (Order 80/21), the Board provided direction to Centra with respect to public notice and invited applications for intervener status. In the same order, the Board granted Centra's motion for certain information within the application to be received in confidence. The Board also determined that instead of making oral submissions at a pre-hearing conference, the parties should make written process submissions.

By way of a letter dated February 18, 2022, the Board found Centra's application to be complete but requested that Centra file amendments as a result of the Board's rate restructuring decisions in Order 131/21.

On February 28, 2022, the Board received Centra's application amendments as well as Centra's submissions on scope and process.

By way of a letter dated March 7, 2022, the Board approved the Consumers' Association of Canada (Manitoba) Inc. ("CAC Manitoba"), Industrial Gas Users ("IGU"), and Koch Fertilizer Canada, ULC ("Koch") as interveners. Throughout the hearing, IGU and Koch presented separate evidence but joint submissions.

In the second procedural order (Order 36/22), the Board established a list of ten issues in scope for the review. These issues were as follows:

1. Allocation of transmission and distribution plant;
2. Determination of downstream demand allocation factors;
3. Direct assignment of high-pressure transmission plant to customer classes, including postage stamp ratemaking;
4. Classification and allocation of distribution plant, including the indexing of the service line study to current costs;
5. Allocation of upstream capacity resources;
6. Allocation of demand-side management costs;
7. Amendments to the cost of service methodology for rate re-bundling [restructuring] impacts;
8. Elimination of the Co-op class;
9. Allocation of operation & maintenance, customer service, and administrative expenses; and
10. Near-term rate impact measure for the Special Contract class and Power Station class.

The Board also specifically ruled the following three issues to be out of scope:

- Minimum margin guarantee for the Power Station class;
- Matters of rate design & introduction of a zone of reasonableness; and
- Customer class rate impacts.

In Order 58/22, the Board denied intervener motions that sought to gain access to commercially sensitive information contained in Centra's application and to gain access

to Centra's cost of service study computer model (or a proxy model). However, the Board did allow Koch access to its own customer-specific data.

In its third procedural order (Order 78/22), the Board determined that there would be no oral hearing and instead requested written submissions from all parties on any in-scope issues that the parties would like to address. However, the Board did invite all parties to appear before the Board to provide time-limited oral submissions on August 17, 2022.

By way of a letter dated August 12, 2022, the Board advised parties to the hearing that they could make oral submissions on any of the issues in scope, but that the Board was primarily interested in oral submissions on issues 1, 2, 3, 5, 6 and 10.

Oral submissions were heard by the Board on August 17, 2022, as envisioned by the third procedural order.

5.0 PRINCIPLES APPLICABLE TO THE COST OF SERVICE METHODOLOGY REVIEW

5.1 Cost Causation and Ratemaking

There was general consensus in this proceeding that cost causation should underpin the cost of service methodology because customers should pay for the facilities and services they use. There were divergent views as to the meaning of cost causation. Determining how customers cause utility costs to be incurred is informed by how the system is planned as well as how it is used. For example, cost causation could consider a utility's most recent planning studies or the planning done to justify assets when originally placed in service. Additionally, cost causation could consider solely the primary benefit of a given asset, or all the benefits, even if all the benefits were not necessary to justify purchasing, retaining, or building the asset. Cost causation could also focus on a range of historical conditions or a single forecast condition to assess an asset's use and benefits to the system. The Board's recent approach to cost of service has been that cost causation is paramount, which means that only uses that cause a utility to incur costs should influence how costs are allocated among customer classes. In Order 164/16, following the review of Manitoba Hydro's electric cost of service methodology, the Board stated this approach as follows:

> *The Board finds that, in the process to determine the appropriate COSS methodology, the principle of cost causation is paramount. Further, the Board finds that ratemaking principles and goals should not be considered at the COSS stage.*
>
> *[…]*
>
> *The Board also finds that cost causation requires consideration of all the uses and benefits of an asset, to recognize that both primary and secondary benefits influence the planning and justification of assets. These considerations should be assessed over a range of years (as opposed to a single forecasted year) and over a range of conditions in order to capture all of the uses and benefits of an asset in determining cost causation.*

The parties had different views as to whether this approach should be followed, or whether issues such as fairness, equity, and other ratemaking goals should be considered in establishing a cost of service methodology.

5.2 Positions of the Parties

Centra

Centra submits that while cost causation is the dominant factor in the utility's existing peak and average methodology, that methodology also gives consideration to non-cost-causal factors. Relying on the Board's findings in Order 164/16, Centra's application seeks to keep non-cost-causal considerations out of the cost allocation phase of ratemaking and focus solely on cost causation.

According to Centra, Atrium relied on five guiding considerations in preparing its report. These can be summarized as follows:

- Cost causation is the fundamental and underlying philosophy applicable to every utility cost of service study;
- Cost causation addresses the question of which customer or groups of customers cause the utility to incur particular types of costs;
- A key consideration is the ability to establish operating relationships between customer service requirements and the costs incurred by the utility in meeting those requirements;
- A utility's cost of service study should stand on its own objective merits. That is, costs should be assigned on the basis of design and operational considerations rather than to support a desired outcome for the allocation of revenues to classes or rate design; and
- The current range of regulatory practices observed in the North American gas utility industry.

In Centra's view, the utility is not moving from a broad definition of cost causation to a narrow one, as was submitted by CAC Manitoba. Rather, the utility is removing non-cost-

causal factors from its cost of service methodology while its proposals consider the nature of Centra's operations, the way customers use the upstream and downstream facilities, and the way Centra designs its system. According to Centra, this is consistent with the Board's approach in Order 164/16.

Centra also argues that a utility's cost structure is not static and evolves over time, which can necessitate changes to allocation methodologies. While it is desirable for a cost of service methodology to be relatively consistent over time, that does not mean that it cannot adapt to changes.

Interveners

CAC Manitoba

As a preliminary matter, CAC Manitoba challenges Atrium as an independent expert required to provide a fair, objective, and non-partisan report in this hearing. At the outset of the hearing, CAC Manitoba, along with all other interveners, accepted Atrium as an independent expert. However, CAC Manitoba expressed concern with Atrium's conduct in the course of the hearing. Specifically, CAC Manitoba challenges Atrium's decision to file rebuttal evidence that, among other things, includes a "scorecard" comparing the positions of the interveners on several contentious issues. According to CAC Manitoba, there was no provision in the Board's procedural orders for Atrium to file rebuttal evidence, and the rebuttal evidence is partisan and constitutes advocacy (or argument) as opposed to independent evidence for the Board's consideration. While CAC Manitoba does not expressly challenge Atrium's main report, it argues in strong terms that the Board should dismiss Atrium's rebuttal evidence.

CAC Manitoba also submits that as the applicant, Centra has the onus (or burden of proof) of proving its proposals, and that the hiring of an external consultant does not relieve the utility of that onus. According to CAC Manitoba, Centra must do one of two things to discharge its burden of proof – either demonstrate that the new proposals are clearly superior to long-standing methodologies, or demonstrate that the proposals are

the result of a significant change in circumstances. If neither of these tests is met, the Board should reject the proposed changes and maintain the existing and long-standing cost of service policies for Centra.

In CAC Manitoba's view, Centra's attempted change in methodology moves the utility from a broad definition of cost causation to a narrow definition of the same term. Broad cost causation considers and gives weight to system planning and use, primary and secondary benefits and uses of assets, as well as a range of years and operating conditions. According to CAC Manitoba, a broad definition of cost causation leads to a more robust methodology able to meet the wide variety of circumstances that are encountered in utility operations. Furthermore, CAC Manitoba submits that there are no changes in circumstances that justify changing to a narrow definition of cost causation.

IGU/Koch

According to IGU and Koch, a cost of service study should be based on cost causation. IGU and Koch submit that when the Board issued its decision in Manitoba Hydro's cost of service methodology review (Order 164/16), it rejected Centra's historic approach of including factors other than cost causation in a cost of service study.

While acknowledging that a cost of service methodology must consider the use of an asset, IGU and Koch argue that only those uses that drive costs should be included. According to IGU and Koch, the appropriate consideration of system use in cost causation is related to cases where use drives cost, not in a simple blanket allocation based on any and all system uses. IGU and Koch also note that CAC Manitoba's view of cost causation results in a broad and vague set of principles that is not founded in cost causation.

5.3 Board Findings

Atrium's Independence and Rebuttal Evidence

The Board finds that Atrium's overall evidence remains admissible. While CAC Manitoba challenged Atrium's independence in oral submissions as described above, the Board finds that CAC Manitoba has not made out a lack of independence or degree of bias on Atrium's part that would make all of their evidence inadmissible. However, the Board agrees with CAC Manitoba's submission that no weight should be given to Atrium's rebuttal evidence.

The duty of an expert witness to a court or tribunal, and the implication of any impartiality or bias, was summarized by the Supreme Court of Canada in *White Burgess Langille Inman v. Abbott and Haliburton*, 2015 SCC 23:

> *[2] Expert witnesses have a special duty to the court to provide fair, objective and non-partisan assistance. A proposed expert witness who is unable or unwilling to comply with this duty is not qualified to give expert opinion evidence and should not be permitted to do so. Less fundamental concerns about an expert's independence and impartiality should be taken into account in the broader, overall weighing of the costs and benefits of receiving the evidence.*
>
> *[…]*
>
> *[50] […] The concept of apparent bias is not relevant to the question of whether or not an expert witness will be unable or unwilling to fulfill its primary duty to the court. When looking at an expert's interest or relationship with a party, the question is not whether a reasonable observer would think that the expert is not independent. The question is whether the relationship or interest results in the expert being unable or unwilling to carry out his or her primary duty to the court to provide fair, non-partisan and objective assistance.*

In light of this duty, the Board considers the filing of Atrium's own rebuttal evidence to be inappropriate. Read in isolation, Atrium's rebuttal raises little new evidence but amounts

largely to a defence of its methodology. The Board agrees with CAC Manitoba's submission that the document is in the nature of argument rather than evidence. This is not the role of an expert. Any submissions included in the Atrium rebuttal could have been advanced by other parties, including Centra, as contemplated in Order 36/22.

However, in the Board's view, Atrium's decision to file rebuttal evidence does not amount to an unwillingness or inability to provide fair, non-partisan, and objective assistance to the Board. While Atrium's rebuttal evidence amounts largely to argument, it represents an attempt by Atrium to defend its own position against competing intervener evidence. It does not amount to partisanship that should disqualify Atrium as an expert witness.

The Board accordingly places no weight on Atrium's rebuttal evidence and is not relying on that document in reaching its decisions in this hearing.

Onus

The Board's primary concern in this hearing was to determine what methodology or combination of methodologies best reflects the principle of cost causation for Centra, consistent with the Board's approach described below.

The Board finds that it is not necessary for Centra to demonstrate a significant change in circumstances before the Board may change or reconsider the utility's cost of service methodology. As indicated by CAC Manitoba, under section 123 of *The Public Utilities Board Act*, the burden of proof is on the applicant. As the applicant, Centra must convince the Board, on a balance of probabilities, that a change in methodology is appropriate.

The Board finds that the burden of proof is not changed by the fact that Centra's existing methodology has been in long-standing use. The last review of Centra's cost of service methodology was 26 years ago. But the time between such reviews does not constitute evidence that the existing methodology is inherently superior.

The Board's Approach to Cost Causation

The Board finds that the principle of cost causation remains paramount in establishing a cost of service methodology. Rate design matters should not be considered at the cost of service stage. They are matters for a general rate application.

The Board's approach in this order is consistent with the approach outlined in Order 164/16. A cost of service study is just one factor the Board may consider in a rate hearing. It is informative, but it is not determinative. Equity and fairness considerations, as well as the public interest, are important considerations in a rate hearing and the Board also takes them into account in setting just and reasonable rates.

The Board does not agree with CAC Manitoba's distinction between a broad and narrow definition of cost causation. Cost causation inherently involves judgment and the consideration of both the design and use of an asset. The Board agrees with the submission of IGU and Koch that the types of uses the Board must consider are the uses that drive costs.

6.0 TRANSMISSION, DISTRIBUTION AND ONSITE FUNCTIONS

6.1 Background

This section deals with the following:

- The allocation of costs related to the Demand component of Centra's Transmission and Distribution functions;
- The classification of costs functionalized as Distribution;
- The allocation of costs related to Centra's distribution plant functionalized as Onsite; and
- The allocation of costs related to the Distribution function to the Mainline customer class.

These are issues 1, 2, and 4 identified as in-scope issues in Order 36/22.

6.1.1 Allocation of Costs Related to the Demand Component of Centra's Transmission and Distribution Functions

Centra's Transmission and Distribution functions refer to gas pipelines and related infrastructure owned by Centra. These downstream assets are distinct from the upstream capacity reserved on interprovincial or interstate pipelines owned by other parties. While those upstream pipelines are transmission pipelines in the technical sense, they are functionalized as Pipeline and dealt with in section 8.0 of this order.

Assets currently incorporated in the Transmission function include high-pressure pipelines (and related assets) that operate at a pressure above 1,900 kPa and carry gas from interconnection points on the Canadian Mainline to various downstream load centres. Assets incorporated in the Distribution function include steel and plastic mains (and related assets) operating at lower pressures that extend from gate stations and form a complex grid extending toward homes and businesses.

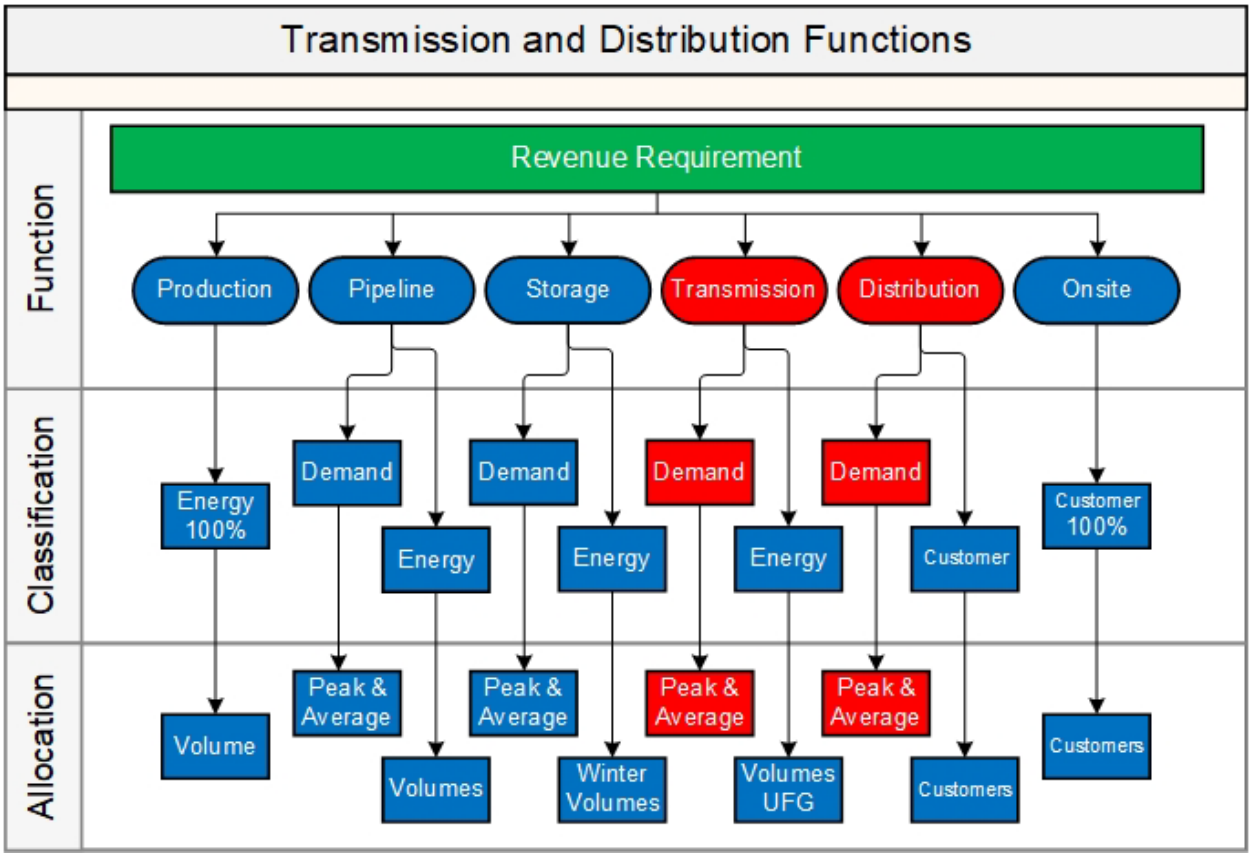

Figure 6.1 – Transmission and Distribution Functions (Simplified)

Figure 6.1 illustrates, in simplified terms, the current cost of service treatment of Centra's Transmission and Distribution functions. Costs functionalized as Transmission are classified partially as Demand and partially as Energy. Costs classified as Demand are currently allocated based on the peak and average methodology approved by the Board in 1996. Unaccounted-for gas costs are classified as Energy and allocated on a volumetric basis, while demand-side management costs are classified as Energy and directly assigned, as described in section 9.0.

Costs functionalized as Distribution are classified either as Demand, or partly as Demand and partly as Customer. Distribution mains are an example of the latter. The cost of constructing distribution mains is a function of both the diameter of the main (which in turn is based on the peak demand that the main must serve) and the length of the main. It is difficult to associate the length of distribution mains with specific customer classes, which

means utilities must use a proxy. The proxy commonly used is the number of customers within a customer class. With increasing numbers of customers, a gas main often must be extended further, causing additional costs to be incurred.

For Centra, the Demand portion of the Distribution function is allocated based on the peak and average methodology in the same manner as the Transmission function. The Customer portion is allocated based on the number of customers within each class or on an internal allocator based on the total plant in service.

The treatment of the Demand component of the Transmission and Distribution functions was a contentious issue in this hearing. As described in section 6.2 below, arguments focused on whether the existing peak and average methodology should be retained, or whether it should be replaced with a coincident peak methodology based on the system design day peak.

Under the existing peak and average methodology, a significant portion of the Demand costs included in the Transmission and Distribution functions is allocated based on the average volume of gas consumed throughout the year rather than the contribution of a particular customer class to the peak day demand of the overall system.

Atrium recommended eliminating the existing peak and average methodology for Demand-related costs and replacing it with a coincident peak design day method. This is because, in Atrium's view, Centra must design its transmission and distribution infrastructure to serve the expected design peak load. As such, Atrium stated that the coincident peak design day method most accurately reflects the actual cost of service.

During the 1996 review of Centra's cost of service methodology, which was conducted as a combined hearing in which the Board considered both cost of service and rate design matters, Centra's expert, R. J. Rudden and Associates, also considered the coincident peak day allocation method to be the most cost-causal, but ultimately recommended the peak and average methodology because it:

- Recognized system utilization as an explicit factor to be included in determining cost responsibility;
- Is relatively simple and straight forward;
- Is a widely accepted method of cost allocation;
- Is considered cost-causal by many states and provinces; and
- Produces results which are close to results using the approved method.

Use of the peak and average methodology also addressed concerns raised in 1996 that customers in the Interruptible class utilized Centra's transmission and distribution plant on most days of the year but would not be attributed any Demand-related costs under the coincident peak method. Specifically, since these customers may be interrupted on peak days and would therefore not contribute to the overall peak demand of the system, Interruptible customers would not have contributed to the recovery of any demand costs under a coincident peak methodology.

6.1.2 Classification of Costs Functionalized as Distribution

Distribution mains are lower-pressure pipelines used to distribute gas to Centra's gas customers, usually along the streets and alleys of urban areas and along road allowances in rural areas. They generally branch off a transmission line at a point known as a city gate or gate station. From the city gate or gate station, gas flows through a branched network of pipes until it arrives at the end user's service line.

For cost of service purposes, a key difference between assets functionalized as Transmission and those functionalized as Distribution is how they are classified and how the costs are allocated to the various customer classes.

Figure 6.2 illustrates, in simplified terms, the classification of Centra's Distribution function. Currently, all of Centra's distribution mains are functionalized to the Distribution function and classified 67% as Demand and 33% as Customer. The Demand portion of

these costs is currently allocated based on the peak and average methodology. The Customer portion of these costs is allocated based on the total number of customers within a class.

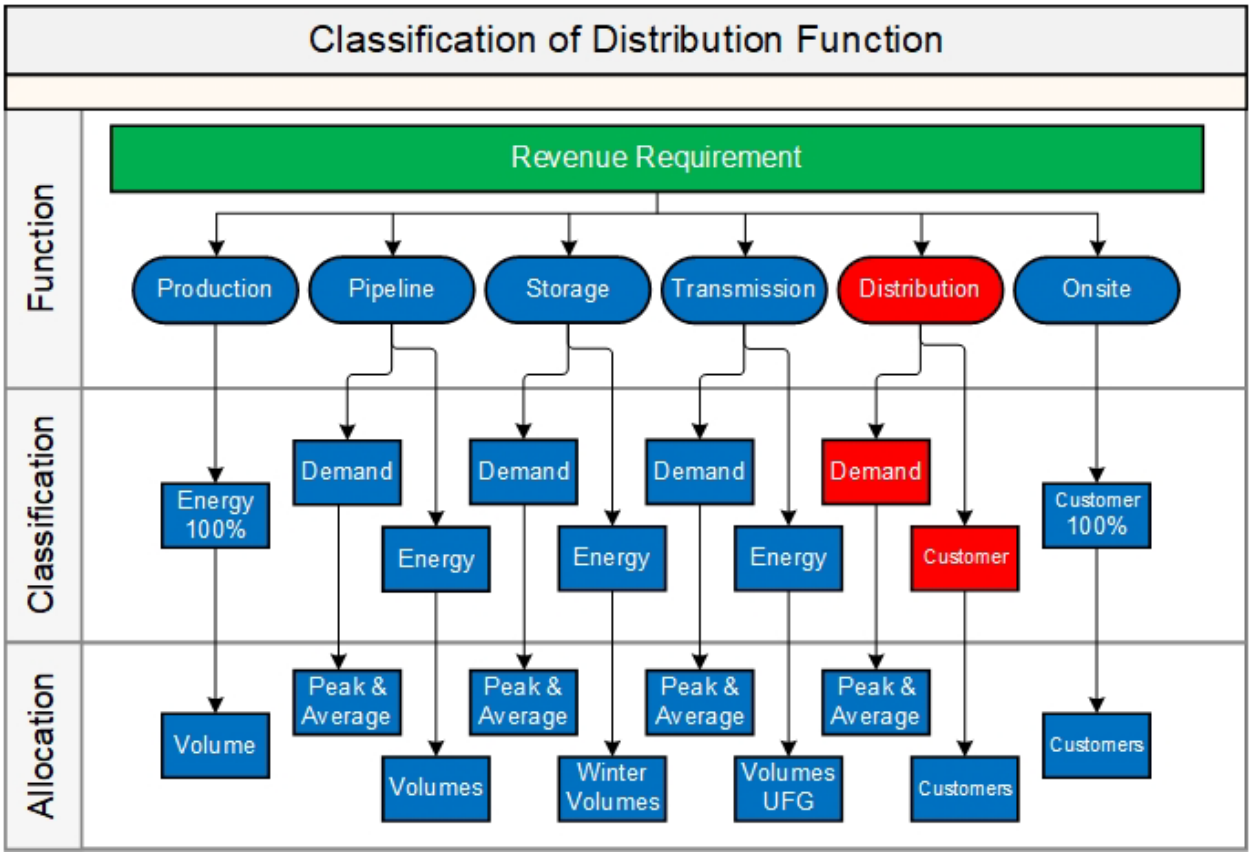

Figure 6.2 – Classification of Distribution Functions (Simplified)

There are three common methods of classifying a utility's distribution mains:

- Diameter-Length Method: This methodology estimates the total capacity of the distribution mains by multiplying the length of pipe by its diameter. The minimum capacity of the system (deemed as the customer component) is then determined by multiplying the same length of distribution main by the minimum pipe size in the system. The percentage of "excess" (i.e., in excess of the minimum demand) is classified as Demand while the remainder is classified as Customer.

The following table illustrates the diameter-length method, based on a fictional example of a utility with three different pipe sizes:

A	B	C = A x B	D = B x 20 mm	E = C – D
Pipe Diameter	**Installed Length**	**Diameter-Length**	**Minimum Diameter-Length**	**Excess Diameter-Length**
20 mm	1,000 km	20,000	20,000	0
40 mm	2,000 km	80,000	40,000	40,000
60 mm	500 km	30,000	10,000	20,000
Total:	**3,500 km**	**130,000**	**70,000**	**60,000**
	Demand-Related: = 60,000 / 130,000 = 46% Customer-Related = 70,000 / 130,000 = 54%			

- Minimum System Method: This methodology is similar to the diameter-length method but incorporates unit cost data for each size of pipe used in the utility's system. As such, it is based on cost data rather than pipe size alone, and estimates the cost of connecting existing customers to the nearby city gate or town border station using the smallest diameter of pipe.

  The following table illustrates this method, using the same fictional example shown above:

A	B	C	D = B x C	E = B x $40	F = E – D
Pipe Diameter	**Installed Length**	**Unit Cost Per Metre**	**As-Built Cost**	**Minimum System Cost**	**Excess Cost**
20 mm	1,000 km	$40	$40,000,000	$40,000,000	$0
40 mm	2,000 km	$55	$110,000,000	$80,000,000	$30,000,000
60 mm	500 km	$65	$32,500,000	$20,000,000	$12,500,000
Total:	**3,500 km**		**$182,500,000**	**$140,000,000**	**$42,500,000**
	Demand-Related: = $42,500,000 / $182,500,000 = 23% Customer-Related = $140,000,000 / $182,500,000 = 77%				

- Zero-Intercept Method: This is a more complicated version of the minimum system method that estimates the cost of connecting existing customers to the nearby city

gate or town border station using a hypothetical zero diameter pipe, which would carry no capacity and therefore would estimate the purely customer-related cost of distribution mains. While Atrium recommended the use of either the zero-intercept method or the minimum system method, the use of the zero-intercept method was not recommended by either Centra or any of the intervener experts in this hearing.

Centra's existing 67% / 33% classification split between Demand and Customer is based on a historic diameter-length study. The key issue before the Board was whether the study should be updated, or whether it should be replaced with a minimum system study that takes cost into account. While Atrium found the existing split to be reasonable, it recommended revisiting the issue based on a new study using either the minimum system method or the zero-intercept method.

6.1.3 Allocation of Costs Functionalized as Onsite

The portion of Centra's distribution plant that is functionalized as Onsite includes customer-specific service lines and meter set assemblies installed on each customer's property.

Figure 6.3 illustrates, in simplified terms, the allocation process for Centra's Onsite function. Costs functionalized as Onsite (e.g., the costs of customers' service lines and gas meter set assemblies) are currently allocated based on a number of external studies and internal allocators, some of which are based on weighted or non-weighted customer class numbers.

Centra utilizes an existing service line study that analyzes the cost of service lines connecting the distribution mains to end users. Similarly, Centra's meter study analyzes the cost of gas meters used to service the various customer classes. Both studies help determine the class customer weightings used to allocate a portion of Centra's Onsite costs. Given that both the service line and meter studies were last reviewed in 2004, Atrium recommended that both studies be updated and that the cost data used within each study be adjusted to account for the effects of inflation over time.

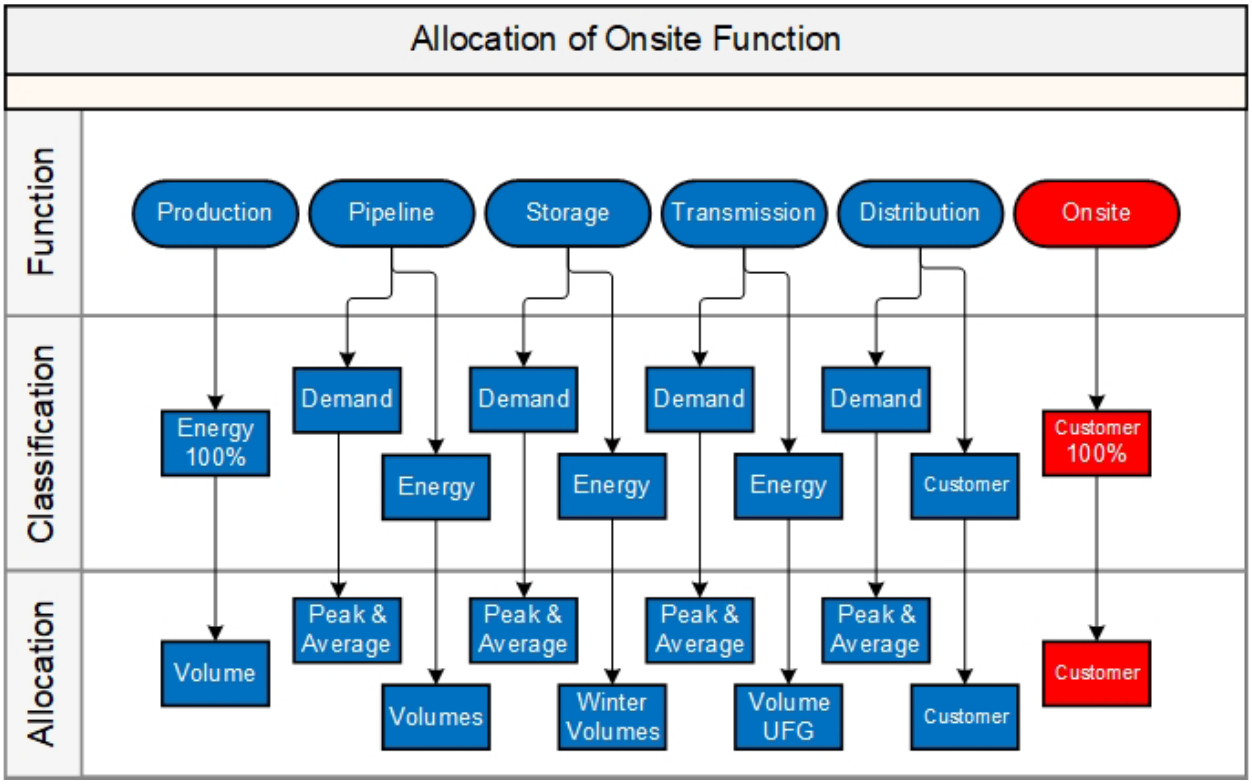

Figure 6.3 – Allocation of Onsite Function (Simplified)

6.1.4 Allocation of Distribution Costs to the Mainline Customer Class

Centra's Mainline customer class consists of large commercial and industrial customers that consume more than 680,000 m^3 of gas per year and are served directly from Centra's transmission system or through dedicated high-pressure distribution systems. Centra explained that approximately half of the Mainline customers are served at pressures between 700 kPa and 1,900 kPa. As a result, Centra seeks to continue to allocate a portion of costs functionalized as Distribution to the Mainline class.

As described in section 2.0, Centra's transmission plant operates at pressures exceeding 1,900 kPa and is functionalized as Transmission. Distribution plant operates at pressures equal to and below 1,900 kPa. Some transmission assets, such as six primary gate stations connected to the Canadian Mainline, step pressure down to below 1,900 kPa but

are still functionalized as Transmission. A portion of these costs is allocated to the Mainline class.

6.2 Positions of the Parties

Centra

Centra supports Atrium's recommendation to eliminate the existing peak and average methodology for the Demand portion of Centra's Transmission and Distribution functions and replace it with a coincident peak methodology based on a design day peak allocator. According to Centra, the peak day methodology directly reflects cost causation, while the peak and average methodology includes non-cost-causal factors. Consideration of the average load of a customer class, which is recognized in the peak and average method, mutes responsibility related to the true cost driver of Centra's transmission and distribution plant, which is the coincident peak demand. The design day allocator corresponds to the highest coincident system peak conditions that the system is designed to meet.

In Centra's view, removing non-cost-causal considerations from the cost of service methodology review is consistent with the Board's approach to Manitoba Hydro's cost of service methodology review in 2016.

In regard to the issue of the Interruptible class not being allocated any costs under a coincident peak method, Centra states that its Interruptible customers have not been curtailed for downstream-related reasons over the past 20 years. Because Centra offers customers alternative supply when service is curtailed, and because Interruptible customers are eligible to switch to firm service, Centra takes Interruptible customers into account when planning its physical transmission and distribution system and incurs costs to construct assets to serve them. As a result, Centra proposes to include the Interruptible class in the coincident peak calculation.

Centra proposes to base the coincident peak day demand calculation on actual historical demand usage instead of Atrium's recommended design day metric. Centra explains that

this is because the required design day data are not currently available, although Centra commits to developing this metric by the next general rate application.

While Centra states that the existing 67% Demand / 33% Customer split for distribution mains continues to be reasonable, the utility acknowledges that the percentage has not been revisited in many years. Centra indicates that it plans to conduct a minimum system study and bring forward a recommendation with regard to the Distribution classification at a future general rate application. Centra also commits to updating its service line study and meter study used to allocate some of Centra's Onsite costs.

Centra acknowledges that not all customers in the Mainline class are served at pressures greater than 1,900 kPa and, in response to a request by IGU and Koch to revise the allocation of costs to that class, indicated that it could re-functionalize the six primary gate stations that reduce pressure to below 1,900 kPa. Centra argues that only the Special Contract and Power Station classes are exclusively served from assets with operating pressures greater than 1,900 kPa, which means those classes are the only ones that need to be excluded from the allocation. As long as costs to those classes are directly assigned, the re-functionalization of the primary gate stations increases complexity of the cost of service study with no real benefit.

In addition, Centra states that its accounting records do not separately identify the assets serving the Mainline class, so it is not possible to distinguish the costs of the dedicated distribution assets that serve the Mainline class from the rest of the distribution assets. Centra also indicates that the assets used to serve the Mainline class are among the most expensive assets in the pool of costs to be allocated, and that changing the methodology would mean that the Mainline customer class is allocated a very large portion of a pool of relatively expensive assets rather than a small portion of a large pool of assets.

Interveners

CAC Manitoba

CAC Manitoba recommends retaining the peak and average methodology to allocate the Demand-related portion of costs related to Centra's Transmission and Distribution functions. CAC Manitoba submits that the selection of a cost of service method requires considerable professional judgment and a broad consideration of the nature of utility operations and the range of benefits and uses of utility assets and investments. This requires a consideration of broad perspectives and not just narrow technical issues. CAC Manitoba argues that Centra's operations are complex, that utility plant is fungible, and that all customers pay for any benefit from the integrated nature, scale, and scope of Centra's system.

CAC Manitoba points out that a peak day allocator allocates 100% of costs based on the design peak and zero percent based on any other factors. In CAC Manitoba's view, such a narrow perspective is not only inconsistent with the nature of a public utility, but it also conflicts with prior cost of service Board Orders 107/96 and 164/16. CAC Manitoba submits that those orders recognized that a cost of service methodology must take into account both the design and operation of a system, which includes taking into account both primary and secondary benefits of customers' use of throughput throughout the year.

In support of the continued use of the peak and average methodology, CAC Manitoba points to the Board's approved allocation methods for Manitoba Hydro's Bipoles. Specifically, CAC Manitoba argues that Manitoba Hydro's Bipole lines are transmission lines whose costs were driven by capacity and not energy. For cost allocation purposes, a narrow view of cost causation would ignore the use of the Bipoles throughout the year. In CAC Manitoba's view, the Board's decision in Order 164/16 to treat these assets as providing both Demand and Energy benefits supports the use of a broader definition of cost causation.

In regard to Centra's proposal to use a design day metric for the coincident peak allocator, CAC Manitoba argues that allocating Transmission and Distribution Demand-related costs based on extreme conditions gives no weight to the normal peak, which underpins Centra's revenue requirement, or to energy benefits spread throughout the year. Furthermore, CAC Manitoba states that in order to develop the proposed design day calculation, a number of approximations, estimations, assumptions, and judgments would be required, resulting in a pseudo-calculation.

With respect to the classification of costs related to distribution mains included in Centra's Distribution function, CAC Manitoba recommends retaining the existing 67% / 33% split between Demand and Customer. However, CAC Manitoba recommends that Centra's existing diameter-length study be updated. Similarly, CAC Manitoba recommends that the existing service line study and meter study be updated and indexed to account for inflation. Lastly, CAC Manitoba recommends that the Board establish a regular interval to update these studies, similar to how Centra's depreciation studies are updated approximately every five years.

CAC Manitoba does not take a position on the issue of Distribution costs allocated to the Mainline customer class.

IGU/Koch

IGU and Koch support Atrium's recommendation to adopt a coincident peak methodology based on a design day peak for the allocation of Demand-related costs. In the view of these interveners, that methodology best reflects cost causation because Centra uses the peak design hour for planning purposes. IGU and Koch also adopt the evidence of Koch's expert who indicated that a system designed to meet average demand would be incapable of providing service on all days colder than average. IGU and Koch point out that Centra uses peak demand in justifying capital expansion projects, citing the example of the Winnipeg North West Project, which was reviewed at the 2019/20 Centra General Rate Application. IGU and Koch also submit that the peak to be used should be the design

day peak and not the peak used for Centra's load forecast. The latter reflects low temperatures that may fall short of the extreme temperatures used for the design day.

IGU and Koch support Centra's proposal to revisit the classification of distribution mains. Neither Intervener takes a position on the issue of the update of Centra's existing service line and meter allocation studies. IGU's expert concluded that the Mainline class is currently allocated some costs that should not be allocated to that class. Specifically, IGU's expert stated that assets functionalized as Distribution and used to supply service at less than 1,900 kPa should not be allocated to the Mainline class, except through direct assignment if certain limited assets are dedicated to serving these customers. IGU and Koch adopt the position of IGU's expert and recommend that the Board direct Centra to file, in the next general rate application, a full characterization of distribution assets allocated to the Mainline class and, if necessary, directly assign certain distribution assets to that class.

6.3 Board Findings

Allocation of the Demand Component of Costs included in Centra's Transmission and Distribution Functions

The Board approves the use of a coincident peak methodology to allocate the portion of costs related to Centra's downstream Transmission and Distribution functions classified as Demand. The allocation is to be based on an estimation of Centra's design day peak rather than the three-year average of historical demand peaks suggested by Centra.

The Board finds that a coincident peak design day allocation best reflects cost causation for the Demand component of these functions. The Board accepts Atrium's evidence that Centra must rely on design day demand in planning and constructing downstream transmission and distribution facilities. As such, a coincident peak method based on a design day approach is preferable to a coincident peak method based on an average of historical consumption peaks, even if Centra will have to rely on historical data to develop its design day metric.

In contrast, the peak and average methodology allocates Demand-related costs in part based on the annual consumption of each class. However, because Centra designs and constructs its system to meet the winter peak day, the annual use of the system does not cause Centra to incur any Demand-related costs. The Board accepts the evidence of Koch's expert that the peak and average methodology is not reflective of cost causation, as Centra's system must be sized to meet its design day peak demand.

When the Board approved Centra's use of a peak and average methodology to allocate Demand-related costs in 1996, it was concerned about system operation not being reflected in the cost of service methodology. Specifically, the Board was concerned that the Interruptible class received the use of the system without being included in the demand allocator, even though the class had the option of switching to firm service at any time, which means Centra had to design its system to accommodate the class.

As indicated by Centra in this hearing, Centra proposes to include the Interruptible class in the calculation of the coincident peak allocator. The Board considers that treatment to be appropriate as Interruptible customers are eligible to switch to firm service, and Centra must ensure that its system is designed to meet their peak demands. Centra explained that in the past 20 years it has never interrupted or curtailed service to any Interruptible customers based on downstream capacity issues.

The Board expects Centra to explain, at the next general rate application, how it arrived at a design day allocator for each customer class and how it compares to the historical peak day method for that class, including for Interruptible customers.

The Board agrees with CAC Manitoba's submission that there is a range of acceptable cost of service methods and that a cost of service study involves considerable judgment. Both the peak and average method and the coincident peak method are accepted by the U.S.-based National Association of Regulatory Utility Commissioners (NARUC), a recognized authority on public utility regulation. A change in methodology from the peak and average methodology approved in 1996 does not reflect unfairness or inequity, as

submitted by CAC Manitoba. It reflects a change in methodology based on a considered review of evidence and submissions, the exercise of judgment, and the current approach of the Board as stated above.

The Board notes that Order 107/96, which approved the peak and average method as part of a combined cost of service and rate design hearing, stated that expert evidence filed in that proceeding concluded that the peak day method is the most cost-causal. In the Board's view, cost of service and ratemaking should be sequential steps and not concurrent ones. It is for that reason the Board excluded matters of rate design from the scope of this hearing. Any issues of fairness or equity that the peak and average methodology may attempt to address can and should be addressed at the next general rate application.

Revised Classification of Distribution Mains

The Board finds that the minimum system approach is the best manner of classifying the distribution mains included in Centra's Distribution function. The Board accordingly directs Centra to complete a minimum system study. The cost data included in the study are to be indexed to inflation.

If Centra's minimum system study is ready in time for the utility's next general rate application, Centra's cost of service study for that application is to be based on the classification percentages suggested by the minimum system study. If the study is not ready in time for Centra's next general rate application, Centra is to retain the existing 67% Demand and 33% Customer classification split for its distribution mains.

The Board accepts Atrium's evidence that the minimum system method is the most frequently used distribution classification method for North American utilities and would be the most appropriate approach for Centra. In the Board's view, because the minimum system approach incorporates actual cost data, it is a better tool than the diameter-length approach even if, as indicated by Centra, the study requires a number of assumptions to be made. The zero-intercept method was recommended by Atrium but not by any party

to this hearing. The Board agrees that it should not be adopted at this time due to the lack of data necessary to complete a zero-intercept study.

The Board acknowledges Centra's view that it will be unable to complete a minimum system study before the next general rate application. The Board therefore directs Centra to provide an update on the preparation of the study at the next general rate application if the study is not ready by that time.

In the interim, the Board accepts Atrium's position that the current 67% / 33% split between Demand and Customer classifications for Centra's Distribution function is reasonable based on Atrium's industry experience.

Service Line Study and Meter Study Update for Centra's Onsite Function

The Board directs Centra to update its service line study and meter study in time for the next general rate application. The cost data included in both of these studies are to be indexed for inflation, consistent with Centra's upcoming minimum system study. The Board notes Centra's commitment to complete the studies before the next general rate application.

Allocation of Distribution Costs to the Mainline Customer Class

At this time, the Board does not approve a change in the manner that Centra functionalizes specific assets serving Mainline customers. In the Board's view, Centra has adequately explained the inclusion of certain assets operating at pressures less than 1,900 kPa in the allocation to Mainline customers. These assets include the six primary gate stations connected to the Canadian Mainline with an outlet pressure at or below 1,900 kPa, as well as all the town border pressure regulating stations. The Mainline class will therefore be allocated a share of the costs of these assets.

Since the Board is approving the direct assignment of costs to the Special Contract and Power Station customer classes, there would be minimal changes to the total allocations

of rate base to the remaining classes with respect to the six primary gate stations if these were functionalized as Distribution as recommended by IGU.

With respect to the other rate base items functionalized as Distribution but allocated to the Mainline class, Centra is unable to isolate the costs of the assets which serve the Mainline class from those assets which only serve other classes. Even if Centra was able to isolate these costs and assign them to the Mainline class, the Board accepts Centra's position that this would result in the Mainline class receiving a large portion of a relatively expensive pool of assets, compared with receiving a small share of a larger pool of assets. The Board does not see a benefit to the increased complexity in the cost of service study that would result from these changes, nor to the required effort by Centra to modify its accounting system to separately track the investments in these assets.

7.0 DIRECT ASSIGNMENT TO THE SPECIAL CONTRACT AND POWER STATION CLASSES

7.1 Background

This section deals with the following:

- The direct assignment of certain costs in the Transmission function classified as Demand to the Special Contract and Power Station customer classes; and
- The potential elimination of the franchise expansion adjustment implemented in the 2003/04 General Rate Application to reduce the impact of Centra's rural expansion in the 1990s on large customers who did not benefit from that expansion.

This is issue 3 identified as an in-scope issue in Order 36/22.

7.1.1 Direct Assignment and the Brandon Area Pipeline System

Cost of service methods that allocate costs to multiple customer classes are needed due to the common or shared nature of most utility assets. However, in some circumstances, a utility incurs costs specifically for one identifiable customer class. In such circumstances, no allocation to customer classes is required and the costs may instead be directly assigned to the customer class that caused the utility to incur those costs.

Direct assignment is equivalent to a 100% allocation of a particular utility cost to a specific customer class. In this hearing, the issue of direct assignment of certain costs was contentious.

Centra applied for approval to directly assign the cost of certain transmission pipelines and related assets in the Brandon area to the Special Contract class and the Power Station class, as under normal operating conditions those assets only service these classes. The Special Contract class is a large industrial customer class with whom Centra has separate contractual arrangements outside its usual Terms & Conditions of Service. Similarly, the Power Station class is a one-customer class consisting of Manitoba Hydro's

gas-fired electrical generating station in Brandon, with whom Centra also has a separate contractual arrangement outside its regular Terms and conditions of service.

Currently, the Demand-related costs of Centra's Transmission function are all allocated under the peak and average methodology. Figure 7.1 illustrates, in simplified terms, the existing treatment of these costs.

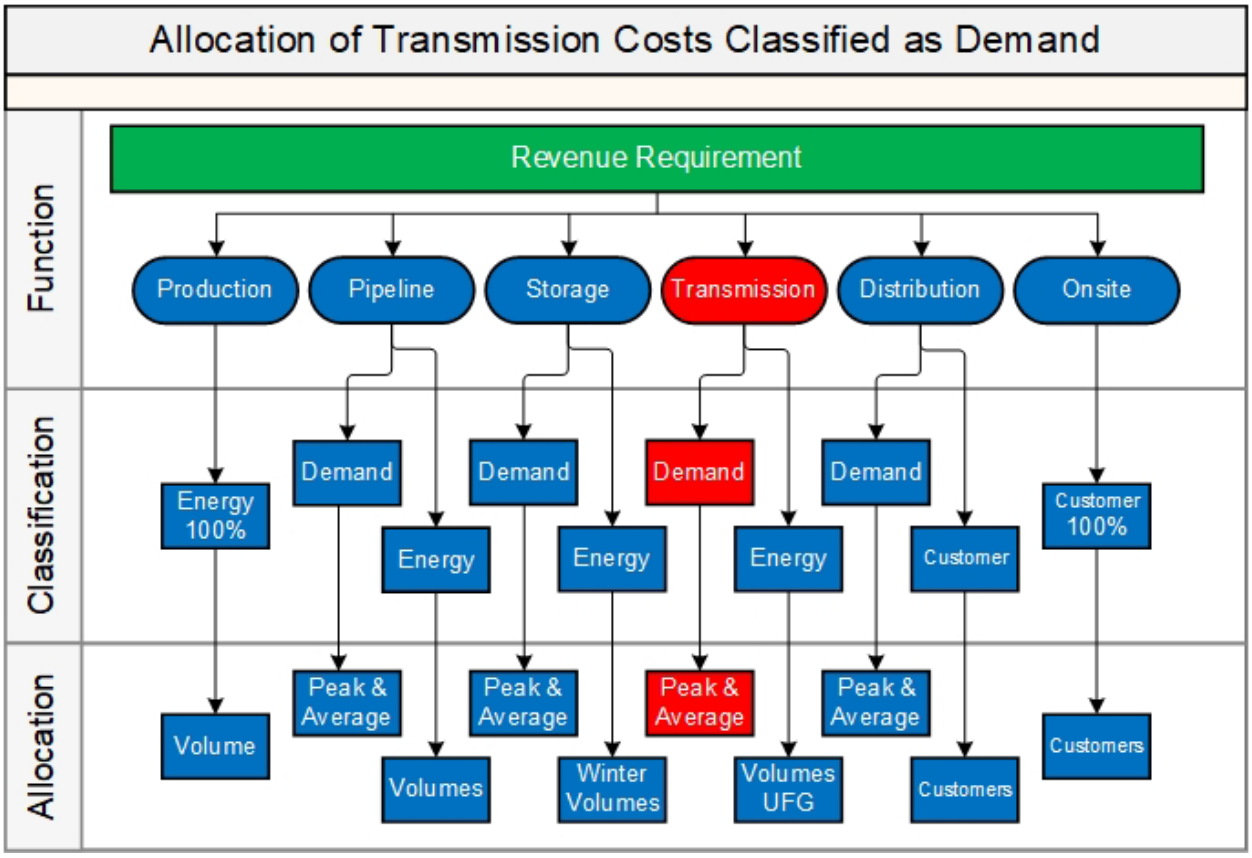

Figure 7.1 – Allocation of Transmission Costs Classified as Demand (Simplified)

Figure 7.2 shows the transmission assets used to serve the Special Contract and Power Station customer classes. The yellow pipeline segments serve the Special Contract class. The purple pipeline segments serve the Power Station class.

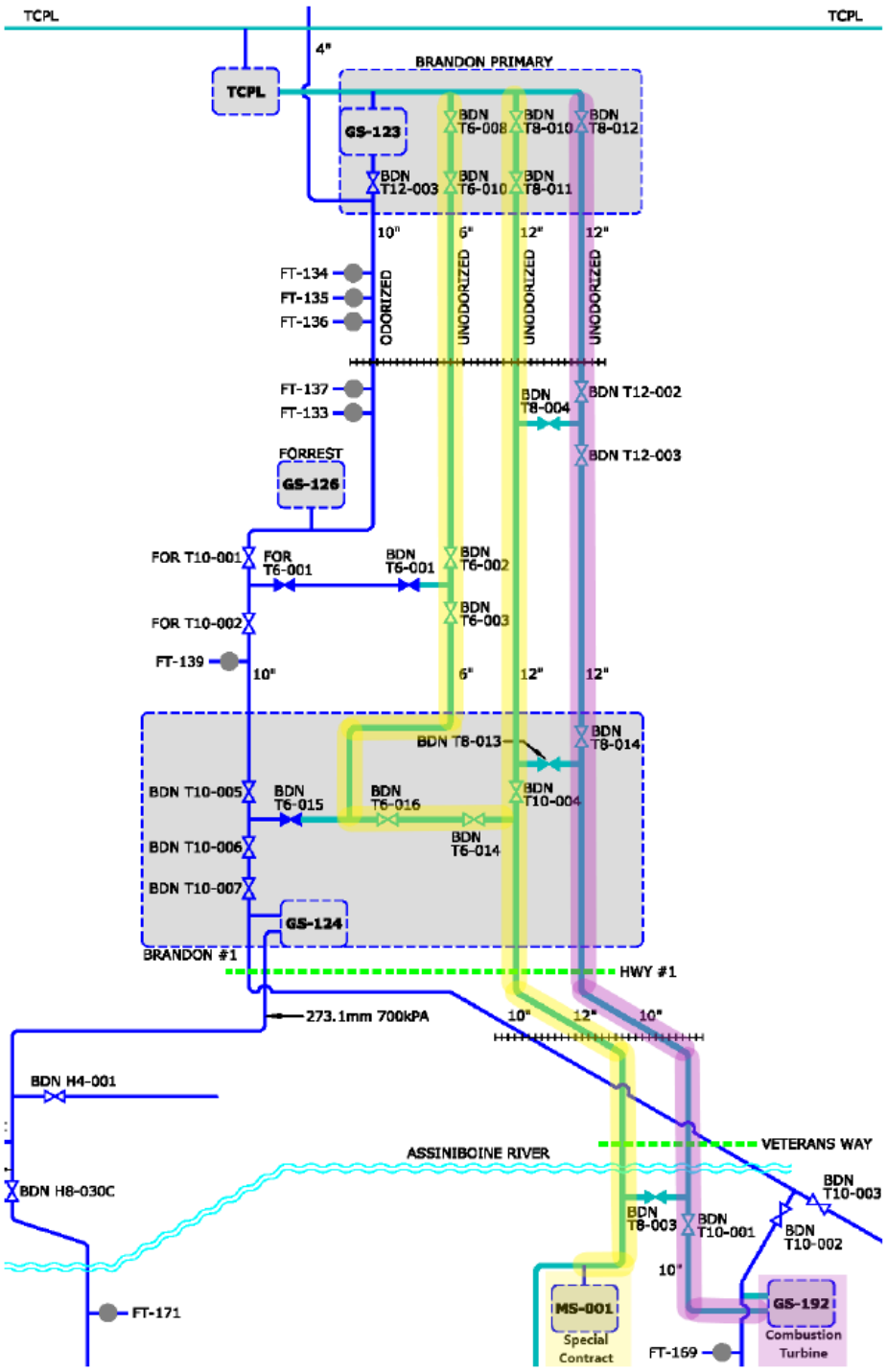

Figure 7.2 – Schematic of the Brandon Pipeline System
Yellow: Transmission assets serving the Special Contract Class
Purple: Transmission assets serving the Power Station Class

Both customer classes are unique in that they receive unodourized gas. Natural gas is odourless in its unadulterated form, which means that humans cannot readily detect the presence of gas in case of a leak. This creates a safety hazard. To make gas leaks more readily detectable, natural gas is odourized with strong-smelling additives (usually mercaptan). Centra odourizes its natural gas supplies using facilities located at various interconnections on the Canadian Mainline, which are at the inlet of Centra's transmission system in Manitoba.

Because of the unique gas supply requirements of the Special Contract and Power Station customer classes, Centra provides both customer classes with only unodourized gas. All other Centra customers receive odourized gas. Consequently, the pipeline assets marked in yellow and purple in Figure 7.2 are not used to serve other customers under normal operating conditions and other transmission assets in the Brandon area are not used to serve the Special Contract and Power Station classes.

A significant issue in this hearing with respect to the appropriateness of direct assignment was whether the transmission assets marked in yellow and purple are truly separate from the rest of Centra's system or remain integrated into the system to such an extent that direct assignment is inappropriate. As shown in Figure 7.2, there are interconnections between these transmission pipelines and the remainder of the pipeline system serving Brandon and other communities, although the valves at these interconnections are normally closed.

A secondary issue was whether direct assignment violates the principle of postage stamp ratemaking. The postage stamp ratemaking principle states that all customers in a class pay the same rates as other customers within that class, regardless of where they are located. In Manitoba, the concept of postage stamp ratemaking has been an accepted fundamental ratemaking principle for several decades.

Atrium, the independent expert retained by Centra for this hearing, recommended that the Special Contract and Power Station customer classes receive a direct assignment of

the costs of transmission mains and related facilities serving these customers in Brandon. According to Atrium, the yellow and purple highlighted pipeline segments shown in Figure 7.2 are exclusively used by the Special Contract and Power Station customers, respectively. Under normal conditions, the pipelines are isolated from the rest of the system, transporting unodourized gas at higher pressure than most of the rest of Centra's system. According to Atrium, it is appropriate to directly assign the cost responsibility for these pipeline facilities to the customer when a nexus between the cost incurrence and the customer can be identified. Atrium stated that properly assigned costs cannot result in cross-subsidization.

Under Centra's proposal, the Power Station and Special Contract customer classes would continue to be allocated a portion of Centra's rate base and other common elements, such as operation and administration, finance expense, taxes, corporate allocation, and net income. These allocations would be based on the existing methodologies used for such costs.

7.1.2 Elimination of the Franchise Expansion Adjustment

If Centra's request for direct assignment is approved, Centra also seeks to eliminate the franchise expansion adjustment.

The franchise expansion adjustment was approved by the Board in Order 118/99, following Centra's significant rural expansion in the 1990s, and implemented in the 2003/04 General Rate Application. The adjustment was created to reflect the fact that rural expansion allocated costs to several customer classes that were not benefitting from the expansion because only the Small General Service (SGS) and Large General Service (LGS) classes were served by the expansion. Under the franchise expansion adjustment, the costs attributed to each customer class were adjusted so that each class paid the same rates it would have paid without the expansion project.

In Centra's 2003/04 General Rate Application, the Board approved the following permanent adjustment which is still in place today:

	A	B	C	D = A + B + C
Customer Class	**Revenue**	**Allocated Expense**	**Allocated Excess Revenue**	**Permanent Adjustment**
SGS-Res	$674,808	($310,099)	($6,580)	$358,129
SGS-Comm	$311,150	($188,671)	($769)	$121,710
Large General	$409,484	($390,031)	($2,740)	$16,713
High Volume	$0	($55,072)	($546)	($55,618)
Co-op	$0	($142)	($1)	($144)
Mainline	$0	($35,510)	($167)	($35,677)
Special Contract	$0	($258,851)	($110)	$258,961)
Power Station	$0	($122,646)	($65)	($122,711)
Interruptible	$0	($23,179)	($263)	($23,442)
Primary Gas	$0	$7,799	($7,799)	$0
Suppl. Firm	$0	$458	($458)	$0
Suppl. INT	$0	$77	($77)	$0

7.2 Positions of the Parties

Centra

Centra adopts Atrium's recommendation and seeks approval to directly assign the cost of the transmission assets serving the Special Contract and Power Station classes in the Brandon area to those classes. According to Centra, the costs of the assets can be clearly identified, and the assets are not used to serve other customers except in extenuating circumstances outside of normal operating conditions. Centra also submits that the pipelines have a one-way relationship with the rest of Centra's system, and that the Special Contract and Power Station classes cannot use any other portion of Centra's system because of their need to receive unodourized gas at high pressure. While unodourized gas can be odourized in an emergency, the opposite is not the case – odourized gas cannot be unodourized and transported to the Special Contract and Power Station classes.

According to Centra, its proposal for direct assignment is compatible with postage stamp ratemaking because it does not result in a customer within either of these classes being charged different rates for service compared to other customers in the same class. Instead, the proposal results in cost allocation that reflects a customer class being exclusively allocated the cost of the transmission mains used to serve it. Centra states that the postage stamp ratemaking principle should not be conflated with a need to pool all assets together and allocate their costs across all customer classes.

Centra argues that the Special Contract class does not benefit from the broader transmission system (with the exception of the facilities serving the Brandon Power Station) and is therefore not causing the costs of that system to be incurred. The proposed approach is therefore not shifting costs attributable to the Special Contract class to other customers but rather represents an attempt to properly reflect the contribution of each class to cost causation.

Centra submits that its cost allocation methodology is not frozen in time and amending the methodology to reflect current cost drivers does not create inequity between customer classes. According to Centra, just as other customers have contributed to costs related to expansions serving the Special Contract customer through their rates, the Special Contract customer has contributed towards the costs of expanding facilities serving other customers. A direct assignment approach is the only way to eliminate the cross-subsidies that have the potential to arise in these instances.

With respect to the franchise expansion adjustment, Centra submits that if the direct assignment of costs to the Special Contract and Power Station classes is approved and the Board approves a switch to the coincident peak day allocation methodology for other Demand-related costs, the franchise expansion adjustment should be discontinued for all classes.

Interveners

CAC Manitoba

CAC Manitoba does not support Centra's proposal to directly assign costs to the Special Contract and Power Station classes. In CAC Manitoba's submission, utility plant is by nature common use and fungible. Customers are served through integrated facilities and the cost of those facilities must be allocated among a number of customer classes. The lack of odourization of the gas supply serving the Special Contract and Power Station classes is a red herring because the affected customers have always received unodourized gas. A change to Centra's long-standing cost of service methodology is therefore not justified. CAC Manitoba argues that the pipelines serving the Special Contract and Power Station classes are connected with Centra's system in the Brandon area, including the downstream system serving southwestern Manitoba.

CAC Manitoba points out that the Special Contract class has increased its operations on several occasions in the past without having to pay for additional gas infrastructure. This is because Centra overbuilds its system to accommodate future anticipated needs. CAC Manitoba submits that other customer classes contributed to that infrastructure, and that switching to direct assignment now would be akin to changing the rules of the game after the game has started. CAC Manitoba argues that Centra's proposal will provide the Special Contract class with all the benefits of the integrated system without having to pay for it, which is entirely in conflict with postage stamp ratemaking.

CAC Manitoba is not taking a position on the elimination of the franchise expansion adjustment.

IGU/Koch

IGU and Koch support Centra's proposal to directly assign costs to the Special Contract and Power Station classes. These interveners cite the evidence of IGU's expert who concluded that the Special Contract and Power Station classes represent a near-perfect case of direct cost incurrence. IGU and Koch adopt the evidence of Koch's expert, who

distinguished between direct costs and common costs, stating that direct costs are incurred only to provide service to a particular customer class and that the direct assignment of those costs should not be up for debate. Koch's expert referenced the following provision of the NARUC Gas Distribution Rate Design Manual:

> *Generally speaking, these costs can be divided into two broad categories: direct costs and common costs. Direct costs are those which are incurred only to provide service to a particular customer class. Common costs are incurred in providing service to more than one class. The assignment of direct costs is straight-forward and should not be subject to debate. Common costs are another matter. By definition, such costs are incurred for the benefit of several rate classes and their costs cannot be directly assigned. Instead, it is necessary to allocate these costs among the rate classes using some reasonable allocation method.*

IGU and Koch disagree with CAC Manitoba's expert evidence regarding cross-subsidization. According to IGU and Koch, the current configuration and the uses made of the transmission system by the customers leads to no overlap between the Special Contract customer and the other customers who use entirely separate transmission, at lower pressures, and containing odourized gas.

IGU and Koch are not taking a position on the elimination of the franchise expansion adjustment.

7.3 Board Findings

Direct Assignment to Special Contract and Power Station Customer Classes

The Board finds that the direct assignment of costs is the best and most cost-causal cost of service methodology when it is feasible to use that methodology.

Utility infrastructure is often used by several classes of customers and customers often benefit from the utility system as a whole. As a result, the majority of costs associated with utility infrastructure cannot be directly assigned and must be allocated to multiple classes through an allocation mechanism. However, the direct assignment of costs related to a utility asset is feasible and appropriate when the nature and amount of the costs can be readily determined and the asset is used by only one customer class.

The transmission lines serving Centra's Special Contract and Power Station customers are suitable for direct assignment. CAC Manitoba argues that the pipelines serving the Special Contract and Power Station classes are connected with Centra's system in the Brandon area, including the downstream system serving southwestern Manitoba. However, Centra confirmed that the pipeline assets are distinct and, while they are physically connected to the remainder of Centra's system in the Brandon area, they cannot be integrated into that system except in an emergency. The Board accepts the submissions of Centra and IGU/Koch that cost allocation should be based on normal operations and not potential emergency situations. Under normal operations, the pipelines serving the Special Contract and Power Station class are isolated from the odourized system.

With respect to the issue of the Special Contract and Power Station classes benefitting from the remainder of Centra's system, the Board notes that these classes cannot be served by other transmission lines in the Brandon area because those lines transport odourized gas.

The Board accordingly approves the direct assignment of costs related to the specific transmission facilities used to serve customers in the Special Contract and Power Station customer classes to those two classes.

The Board further finds that direct assignment is consistent with the postage stamp ratemaking principle. Unlike Manitoba Hydro, Centra is not subject to an express statutory "postage stamp rate" requirement. Subsection 82(1) of *The Public Utilities Board Act* merely prohibits rates that are unjust, unreasonable, unduly discriminatory or unduly preferential. However, it has been the Board's approach that natural gas customer classes with similar service characteristics pay the same rates, no matter where they are located in Centra's service territory. In the case of the Special Contract and Power Station classes, direct assignment does not violate the principle of postage stamp ratemaking because the assignment is based on the unique service characteristics of each of these two classes as a whole, and not the location of customers within either class.

The Board considered CAC Manitoba's submission that the Special Contract class has been able to increase its operations based on capacity historically paid for by all ratepayers. However, as confirmed by Centra, the Special Contract class has also previously contributed towards the cost of expanding facilities for other customer classes.

In the Board's view, direct assignment is the best approach in this case to minimize or eliminate potential cross-subsidization between affected classes. The potential presence of historical cross-subsidization cannot act as a barrier to updating a cost-of-service methodology in a manner the Board otherwise considers appropriate.

A cost of service study is one of several factors the Board may consider in setting just and reasonable rates. To serve its function, the study must reflect cost causation. The Board is persuaded that direct assignment best reflects cost causation in this case. Factors unrelated to cost causation, including equity issues that must be considered in determining whether rates are just and reasonable, should be left to a general rate application.

Elimination of the Franchise Expansion Adjustment

The Board does not approve the elimination of the franchise expansion adjustment at this time but intends to consider either a partial or full elimination at the next general rate application, based on additional information to be filed by Centra.

When the concept of a franchise expansion adjustment was approved in Order 118/99, it was created to reflect that the cost of rural expansion would otherwise be paid in part by customer classes that were not expected to have any customers in the expansion areas. With the Special Contract and Power Station customer classes now being subject to direct assignment, the rationale for the adjustment has disappeared for those two classes. However, only approximately two-thirds of the adjustment flows to the Special Contract and Power Station customer classes – the remainder flows to the High Volume Firm, Mainline, and Interruptible classes. With those classes not being subject to direct assignment, a complete elimination of the adjustment could potentially penalize them. The Board finds that additional information is needed to allow the Board to fully consider this issue.

As a result, the Board directs Centra to file, together with its next general rate application, a modified franchise expansion adjustment plan that removes only the adjustment for the Special Contract and Power Station customer classes, together with a rationale by Centra for the utility's preferred approach to the adjustment. If Centra is of the view that a complete elimination of the franchise expansion adjustment is still warranted, Centra is to provide a rationale supporting this position.

8.0 PIPELINE AND STORAGE FUNCTIONS

This section deals with the following:

- The allocation of Centra's costs functionalized as Pipeline and classified as Demand; and
- The allocation of Centra's costs functionalized as Storage and classified as Demand.

This is issue 5 identified as an in-scope issue in Order 36/22.

An additional issue raised by the parties, namely the treatment of working capital related to gas in storage, is ruled out of scope, as further explained in this section.

8.1 Background

As discussed in section 2.0, all natural gas consumed in Manitoba must be brought in from outside the province. Centra primarily purchases natural gas from Western Canada at two natural gas hubs in Alberta (the AECO hub and the Empress hub). Centra transports the gas to Manitoba using reserved capacity on interprovincial pipelines, primarily the Nova Gas Transmission Line (to flow gas from AECO to Empress) and the Canadian Mainline (to flow gas from Empress to Manitoba). These costs are functionalized as Pipeline and classified largely as Demand. Only a small portion of these costs is classified as Energy. That portion relates primarily to compressor fuel. Compressor fuel costs are classified as Energy because they are based on the volume of gas to be moved through the pipeline, not the amount of capacity needed. The costs classified as Energy are dealt with in section 11.0.

Because the demand for natural gas as a heating fuel is much higher in Manitoba in the winter than in the summer, Centra must plan for winter capacity. To optimize its overall natural gas transportation costs, Centra has entered into U.S. storage and transportation arrangements (as described in section 2.0 and illustrated in Figures 2.1 and 2.2) that allow the utility to reduce its year-round pipeline capacity and corresponding costs. Under

these arrangements, gas flows into storage in the summer and is backhauled to Manitoba in the winter. Centra's storage portfolio, including the cost of U.S. pipeline transportation, is functionalized as Storage and classified partly as Demand and partly as Energy.

Figure 8.1 illustrates the current treatment of the Demand component of the Pipeline and Storage functions in a simplified manner. Both are currently allocated using the peak and average methodology, in accordance with Order 107/96.

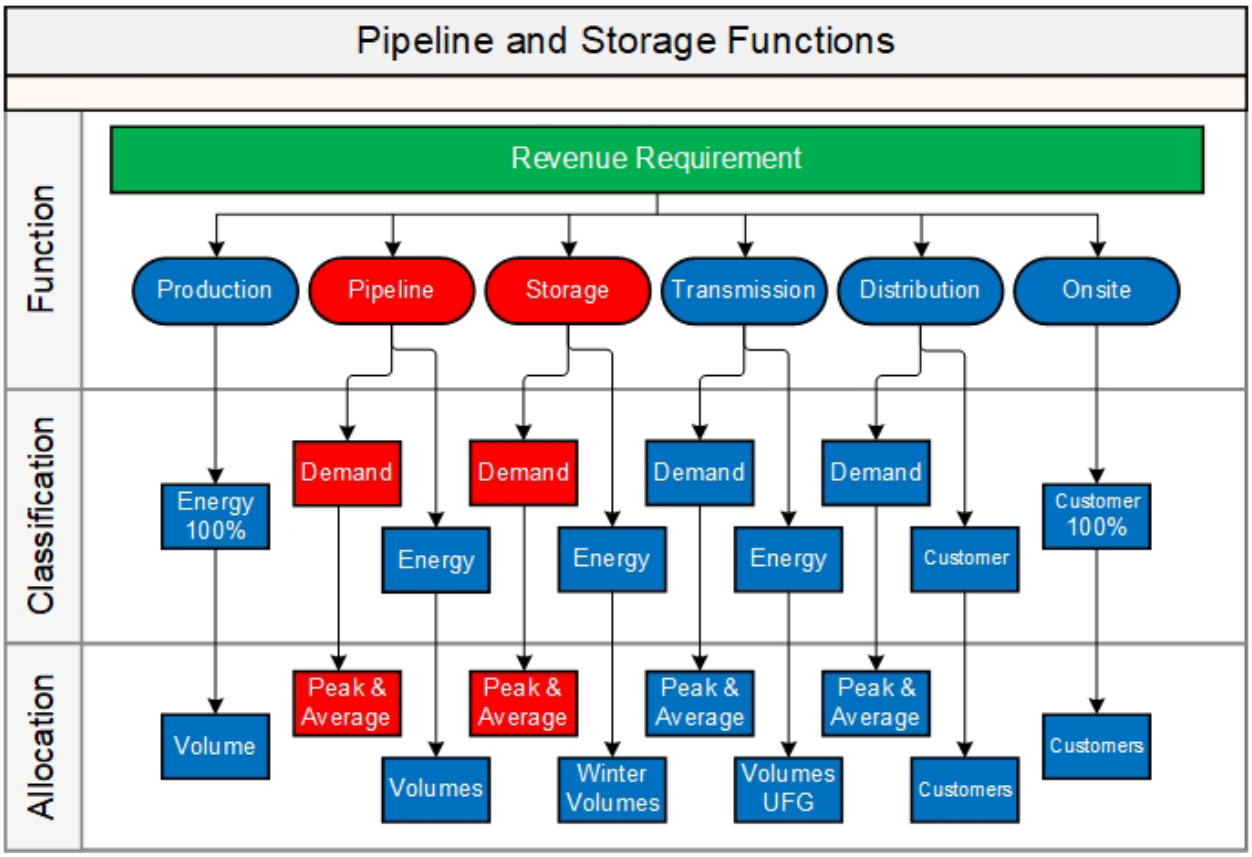

Figure 8.1 – Allocation of Pipeline and Storage Functions (Simplified)

Atrium, in its report filed in this hearing, offered two alternate approaches to allocating the Demand-related costs related to Centra's upstream pipeline transportation and storage portfolio.

Atrium's preferred approach is to change the allocation methodology to a seasonal resource stack-based analysis. A seasonal resource stack-based analysis considers the contribution of each pipeline transportation and storage arrangement to meeting the seasonal and peak demands of Centra's customer classes. The steps involved in developing a seasonal resource stack-based analysis therefore reflect a logical progression in identifying why and when capacity is needed and, in doing so, provide guidance as to how costs should be allocated.

As an alternate approach to Atrium's preferred seasonal resource stack-based analysis, Atrium recommended using the coincident peak design day methodology for the Demand-related costs of the Pipeline function (i.e., Centra's year-round pipeline capacity) and the winter season demand in excess of summer demand ("winter excess") method for the Demand-related costs of the Storage function (i.e., Centra's storage and related pipeline injection and redelivery capacity). Instead of analyzing a utility's supply stack on any given day, the winter excess method compares the winter demand to the summer demand on a seasonal basis. This recognizes that the storage portfolio only exists because winter demand is higher than summer demand.

For the Interruptible customer class, Atrium recommended the use of a 100% load factor contribution to the peak day allocator if Centra's upstream capacity accommodates the peak demands of this class.

Some parties also filed evidence and made submissions with respect to the treatment of certain costs related to gas in storage. The issue relates to the allocation of a portion of Centra's working capital requirements attributable to gas held in storage, which means the gas has been paid for by Centra but has not yet been sold to customers. The resulting financial obligation constitutes a finance expense to Centra, which the utility currently functionalizes as Storage, classifies as Energy, and allocates based on volumetric gas consumption.

8.2 Positions of the Parties

Centra

Centra proposes to eliminate the use of the existing peak and average methodology and replace it with Atrium's alternate recommendation. Specifically, it proposes to allocate the Demand-related portion of the Pipeline function based on the coincident peak design day methodology without including the Interruptible class, and the Demand-related portion of the Storage function based on the winter excess method in a manner that includes the Interruptible class.

According to Centra, Atrium's alternate recommendation better reflects cost drivers than the existing peak and average methodology and is easier to understand, and far less complex to implement, than the seasonal resource stack-based analysis. In Centra's view, the coincident peak design day approach best reflects the cost-causal relationship between the cumulative peak day demand of Centra's customers and the planning and contracting for pipeline capacity. Since Centra does not include the Interruptible class when planning its year-round pipeline capacity needs, Centra recommends that this class be excluded from the proposed allocator for the Pipeline Demand costs.

With respect to the Storage function, Centra states that it incurs the costs of its U.S. storage and related pipeline capacity to meet winter volumes that are over and above the volumes associated with summer use. As such, it considers the winter excess method more appropriate than the peak and average method, because the total annual volumes incorporated into the peak and average allocator do not determine the capacity of storage required and do not recognize the excess costs incurred to serve low load factor customer classes during the winter. Centra recommends including the Interruptible class in the allocation of the Demand component of its Storage function, because it considers the needs of that class when designing its storage portfolio and customers in the Interruptible class are served by gas from storage if firm customer demand can be met.

With respect to the working capital related to gas in storage, Centra agrees with the suggestion of IGU's expert to allocate those costs on the basis of winter volumes instead of annual volumes, since winter demand rather than annual demand is the cost driver.

Interveners

CAC Manitoba

CAC Manitoba recommends retaining the use of the existing peak and average methodology for upstream capacity.

In CAC Manitoba's view, Centra's upstream capacity and storage is integrated and can be looked at under the capital substitution theory, in which Centra can rely on either capacity or storage to meet demand. CAC Manitoba also states that the ability to deliver gas into storage in the summer months is made possible by low load-factor customers, while high load factor customers benefit from the cost savings resulting from Centra's storage portfolio. Accordingly, Centra's gas supply portfolio cannot be severed and considered individually for cost of service purposes. CAC Manitoba argues that Centra goes through extensive optimization in order to meet customer demands economically, and that one investment can be substituted for the other. As such, these investments should be considered together and allocated in the same manner.

CAC Manitoba submits that the peak and average method is the best method to weight costs based on demand and energy and reflects a broad view of cost causation consistent with the Board's definition of that term. It also argues that the winter excess method places a greater weight on annual volumes than the current peak and average method, stating that this appears to conflict with Centra's proposal for a purely cost-causal cost of service policy objective.

With respect to the Interruptible class, CAC Manitoba submits that under the coincident peak methodology, the class would avoid all Demand-related costs despite using and benefitting from the capacity for a significant portion of each year.

CAC Manitoba argues that the treatment of costs related to Centra's working capital tied up in gas in storage is out of scope of this hearing as it is not a capacity-related issue.

IGU/Koch

IGU and Koch agree with Centra's proposal to move away from the peak and average methodology for upstream capacity resources but do not unconditionally support the winter excess approach for the Demand component of Centra's Storage function. In IGU and Koch's submission, the winter excess approach is inferior to the seasonal resource stack-based approach, and the latter more accurate and logical. However, IGU and Koch also suggest that the seasonal resource stack-based approach is more complex and more likely to require reliance on commercially sensitive information that would be difficult for interveners to test. IGU and Koch accordingly ask the Board to require Centra to compare the winter excess method with the seasonal resource stack-based approach for upstream capacity resources and to defer a final determination of the issue until the next general rate application.

IGU and Koch also adopt the evidence of IGU's expert that the costs related to Centra's working capital tied up in gas in storage should be allocated based on winter volumes rather than annual volumes.

8.3 Board Findings

The Board finds that, for the same reasons set out in section 6.0 with respect to Centra's downstream Transmission and Distribution functions, the existing peak and average methodology used to allocate the Demand-related costs of Centra's upstream Pipeline and Storage functions should be replaced.

The Board notes that Atrium recommended a seasonal resource stack-based analysis for both the Pipeline and Storage functions. In particular, Atrium found that Centra seeks the least-cost mix of available pipeline and storage capacity to meet its design-day peak. The Board understands that Centra applies the same approach to its seasonal requirements.

The Board accepts that a seasonal resource stack-based methodology would be the most accurate manner of allocating Demand-related Pipeline and Storage costs. However, it is not the most practical approach. The methodology is complex and, as indicated by IGU and Koch, likely to require commercially sensitive information. In the Board's view, the alternate methodology recommended by Atrium, and preferred by Centra, is the more appropriate approach and constitutes a significant step towards cost causality compared to the existing peak and average methodology.

The Board therefore finds it appropriate to approve Centra's preferred approach of allocating:

- the Demand-related costs of Centra's Pipeline function based on a coincident peak methodology using the design day peak; and
- the Demand-related costs of Centra's Storage function using the winter excess method.

The Interruptible class is to be included in the allocation of Storage costs but is to be excluded from the allocation of Pipeline costs.

The Board's findings with respect to each of the Pipeline and Storage functions are further described below.

Pipeline Function

The Board finds that the existing peak and average allocator is not appropriate for the portion of the Pipeline function that is classified as Demand because year-round pipeline capacity is reserved specifically to serve the winter peak day demand. Consumption at levels less than the reserved capacity does not affect the fixed costs of such pipeline transportation agreements. The peak and average allocator, however, incorporates average consumption in the allocation to customer classes and, as such, is not cost-causal in this case.

The Board approves Centra's application to allocate the Demand-related costs related to its upstream Pipeline function according to the coincident peak methodology, based on an estimation of Centra's design day rather than on the three-year average of historical demand peaks. For the same reasons set out in section 6.0 with respect to Centra's transmission and distribution system, the Board finds that the coincident peak methodology better reflects cost causation than the peak and average methodology. In particular, the Board accepts Centra's evidence that the total contracted year-round pipeline capacity is based on peak demand and not energy needs.

The Interruptible customer class is not to be included in calculating the coincident peak allocator for the Pipeline function because Centra does not plan to serve this class from its contracted upstream resources on the peak day. As such, the Board finds that the Interruptible class does not contribute to the cost of Centra's reserved pipeline capacity.

As stated above, cost causation is not the only consideration in setting just and reasonable rates. Concern about the Interruptible class not being allocated pipeline costs despite being served on most non-peak days is an equity and fairness consideration to be considered in setting rates, not in determining the appropriate cost of service methodology. As such, the Board finds that this matter is best addressed at Centra's next general rate application.

Storage Function

The Board accepts that the winter excess methodology reflects the main use of Centra's storage portfolio, which is to meet the winter volume needs of customers that are in excess of summer volumes, as summer volumes are served with year-round pipeline capacity. This is a more cost-causal approach than allocating by annual volumes, which is a component of the current peak and average allocator.

The Interruptible class is to be included in the calculation of the winter excess allocator because it is served from storage throughout the winter whenever the firm load demand can be met. In most winters, the Interruptible class can be served from storage most of the time. Centra considers the Interruptible class winter volumes when sizing and optimizing its storage portfolio. Therefore, the Interruptible class causes Centra to incur some of the storage portfolio costs.

Working Capital of Gas in Storage

The Board finds the treatment of working capital related to gas in storage to be out of scope in this hearing. While IGU filed evidence on this issue, the purpose of the Board's scope ruling in Order 36/22 was to narrow the focus of the hearing to specific issues. Working capital related to gas in storage is a finance expense and is classified as Energy, not Demand. Costs with an Energy classification are not a capacity issue, and thus are out of scope.

9.0 DEMAND-SIDE MANAGEMENT COSTS

This section deals with the treatment of Centra's demand-side management costs. This is issue 6 identified as an in-scope issue in Order 36/22.

9.1 Background

Demand-side management (DSM) is a term that refers to targeted energy efficiency and behavioural modification measures intended to reduce the demand for natural gas. Examples are a loan to a residential gas customer to finance the installation of triple-pane windows, a rebate on the purchase of a high-efficiency gas furnace, or educational programs to encourage energy conservation.

For a utility customer, the immediate benefit of DSM is a reduction in their natural gas bill. But DSM may also provide benefits to a utility as well as other societal benefits. For a utility, there is a benefit to DSM if the investment allows the utility to avoid or defer major investments or costs. For society, there may be other benefits such as a reduction in greenhouse gas emissions.

Since 2020, Centra's DSM initiatives have been provided by Efficiency Manitoba, a Crown corporation established by *The Efficiency Manitoba Act* with a mandate to provide such services in Manitoba. In accordance with that Act, Centra reimburses Efficiency Manitoba for the costs of administering DSM. These costs are currently functionalized as Transmission, classified as Energy, and allocated based on a forecast of customer participation in the DSM programs. Figure 9.1 illustrates, in simplified terms, the current treatment of these costs in Centra's cost of service studies.

The direct assignment approach currently used for natural gas DSM is different from the existing cost of service treatment of Manitoba Hydro's electric DSM. In Order 164/16, the Board found that electric DSM is a system resource capable of avoiding or delaying the need to construct new generating stations. As such, the Board ordered electric DSM to be functionalized as Generation, classified partly as Demand and partly as Energy in the

same manner as the majority of Manitoba Hydro's Generation function, and allocated such that the Demand portion of those costs is based on the coincident peak methodology and the Energy portion is based on the energy consumption of each customer class.

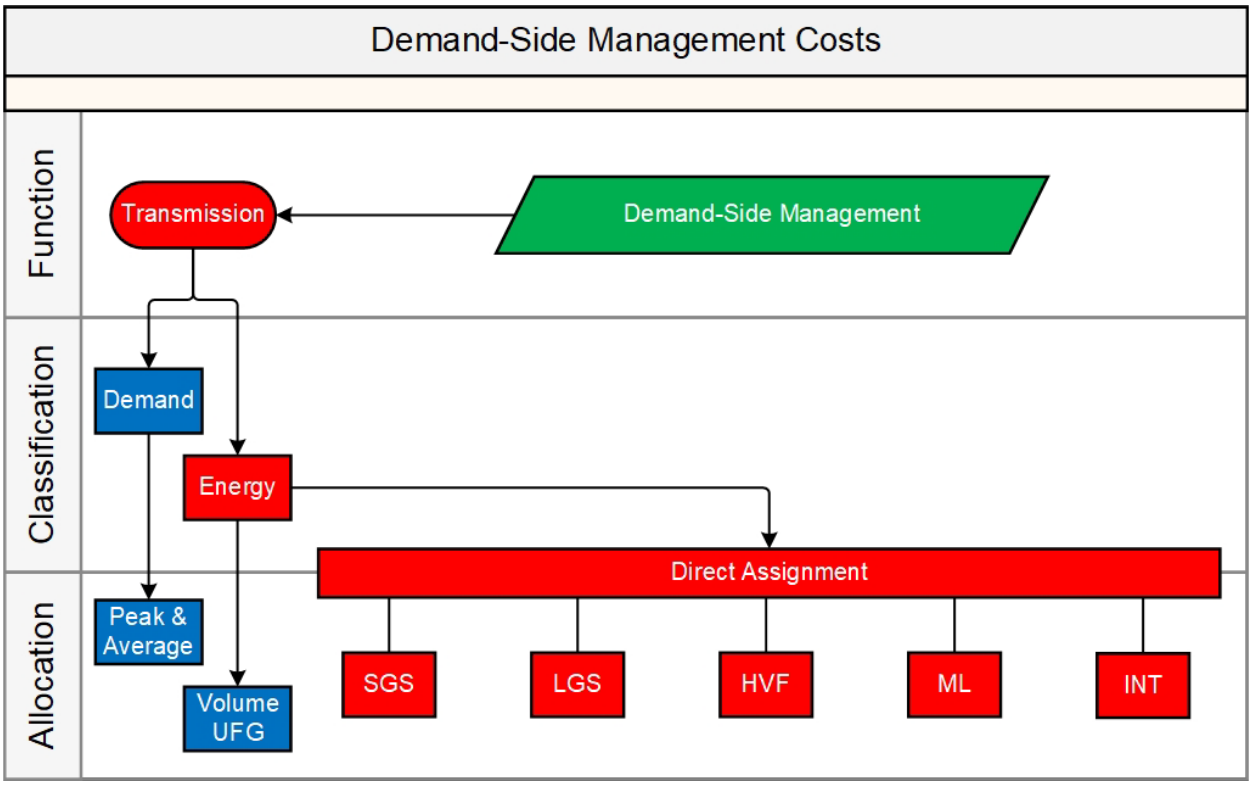

Figure 9.1 – Assignment of Demand-Side Management Costs (Simplified)

The issue in this hearing was whether natural gas DSM should continue to be allocated to participating customer classes based on the forecast participation in DSM programming, or whether Centra should adopt a system resource approach to allocation similar to the one used by Manitoba Hydro since 2016.

9.2 Positions of the Parties

Centra

Centra proposes to retain its existing DSM allocation methodology. According to Centra, natural gas DSM programs continue to be targeted at specific markets and the costs can accordingly be assigned to the targeted classes. Furthermore, the marginal values used to evaluate natural gas DSM do not attribute any value to the deferral of future investment in Centra's transmission and distribution system. Instead, the marginal value of natural gas DSM to Centra consists entirely of avoided upstream gas purchases and the cost of transportation to Manitoba. In Centra's view, an allocation of natural gas DSM based on the peak and average methodology would not make sense for natural gas DSM because the avoided costs are predominantly related to Energy.

Centra acknowledges that natural gas DSM has, in theory, reduced downstream capacity requirements but submits that the specific impact to Centra's upstream and downstream costs are currently difficult to measure. Additionally, Centra acknowledges that its existing treatment of natural gas DSM may result in small amounts of intra-class cross-subsidization. However, Centra states that the additional cost burden of non-participating customers within a class is not eliminated if DSM were treated as a system resource.

Interveners

CAC Manitoba

CAC Manitoba recommends that natural gas DSM be treated as a system resource in a manner consistent with Manitoba Hydro's electric DSM. Consequently, CAC Manitoba recommends that the costs of natural gas DSM be allocated using the peak and average methodology.

In CAC Manitoba's submission, the existing approach to allocating natural gas DSM is too narrow because gas DSM can reduce peak consumption and lower both upstream and downstream capacity costs. According to CAC Manitoba, natural gas DSM also results in socio-economic and societal benefits, such as lower greenhouse gas emissions,

that align with a broader definition of cost causation. A broader view of DSM cost causation aligns with Centra's corporate decarbonization direction, allows for alignment in the treatment of DSM cost allocation between electric and gas operations, and is consistent with *The Efficiency Manitoba Act*, which underscores the primary and secondary benefits of gas DSM.

IGU/Koch

IGU and Koch recommend that the existing allocation mechanism for DSM be retained. Both interveners submit that natural gas DSM does not rely on any system capacity savings and note Efficiency Manitoba's evidence, during the Board's review of that entity's 2020-2023 Efficiency Plan, that there are no avoided cost components included with the natural gas benefits associated with the deferral of distribution or transmission facilities. IGU and Koch note that even customers who purchase their gas from parties other than Centra are allocated DSM costs. In the view of these interveners, societal benefits should not be considered in the cost causation process since doing so could lead to nonsensical results, such as allocating costs based on the benefits of economic development.

9.3 Board Findings

The Board finds that Centra's existing DSM cost allocation methodology, which directly assigns the cost of DSM programs to the classes participating in those programs, should be retained, as it reflects the best estimate of cost causation.

The Board recognizes that gas DSM costs continue to be allocated in a different manner than electric DSM costs. That treatment is justified by the different manner in which the two utilities operate.

When the Board ordered electric DSM to be functionalized as Generation in Order 164/16 and allocated to customer classes on the same basis as other generation costs, it did so based on the finding that DSM was a system resource that can be used to avoid electricity generation costs. When a Manitoba Hydro customer class reduces its electricity consumption through DSM, it reduces the need for generation, either freeing up electricity

for export or deferring the investment in new generation assets. Based on the approved electric cost of service methodology for Manitoba Hydro, the benefits of the export revenues or deferred generation investments are shared across all customer classes, not just the class that undertook the DSM program.

While CAC Manitoba submits that DSM reduces the need for investments in upstream capacity, Centra's upstream functions are not long-term capital assets. Gas is purchased in Alberta and sold at cost. The upstream pipeline and storage portfolio consists of service contracts, likewise sold at cost with no investment or mark-up by Centra. Gas DSM results in reductions to the winter peak demand as well as energy consumption, reducing the amount of gas purchased and the need to hold upstream pipeline and storage capacity. The benefits of avoiding these costs flow directly to the customer class that undertook the DSM measure. Other classes do not share in the reduction of upstream costs.

As submitted by CAC Manitoba and confirmed by Centra, gas DSM does have the potential to defer or reduce the need for investments in the utility's downstream transmission and distribution plant. However, the Board accepts Centra's argument that this cannot be easily quantified and that Centra does not include avoided transmission and distribution investments in the calculation of its marginal value of gas DSM. Centra's marginal value of DSM, which is used to calculate the cost-effectiveness of DSM programs, is based on avoided gas and upstream capacity purchases.

While natural gas DSM can reduce or defer the need for upgrades to the capacity of Centra's transmission and distribution infrastructure, in the Board's view it does not defer or avoid major capital investments to the same extent as electric DSM, and the avoided costs of these investments are not easily quantified. This distinguishes gas DSM from electric DSM.

Directly assigning the costs of DSM programs to the classes that participate in those programs is the most cost-causal approach for gas DSM at this time. The expenditures are caused by the participants of the class and the majority of the benefits of those DSM expenditures flow to that class. As such, the Board finds that the existing allocation methodology, which directly assigns the DSM costs to the participating customer classes, should be retained.

Similarly, the existence of broader societal benefits to gas DSM does not justify a departure from the existing cost allocation methodology at this time. There was no quantification of the societal benefits of DSM in this hearing, nor any methodology proposed to quantify them. However, the Board accepts Centra's position that further evaluation may be warranted as the gas DSM portfolio, or the intent of the portfolio, changes over time.

10.0 INTERIM RATE MEASURE FOR THE SPECIAL CONTRACT AND POWER STATION CLASSES

This section deals with an interim rate measure for the Special Contract and Power Station classes. This is issue 10 identified as an in-scope issue in Order 36/22.

10.1 Background

The Board last reviewed Centra's revenue requirement in the 2019/20 General Rate Application. During that proceeding, the Board reviewed, among other things, various capital expenditures incurred since the 2013/14 General Rate Application. In particular, the Board reviewed evidence related to large transmission-related investments, including the Winnipeg North West Project.

Under the existing cost of service and rate design mechanisms, once these investments were included in Centra's 2019/20 test year revenue requirement, the Special Contract class faced a significant non-gas rate increase that began on November 1, 2019. At the time, Koch questioned the reliability of Centra's cost of service study and argued that there was a real risk that any rate changes arising from the 2019/20 General Rate Application may be in the wrong direction if the Board later determined that a change in cost allocation methodologies was warranted.

In Orders 152/19 and 161/19, the Board subsequently approved Centra's rates but required Centra to file an application for a comprehensive review of its cost of service methodology. As set out in section 4.0, Centra ultimately filed its application in this hearing on June 15, 2021.

Consistent with the Board's direction in Order 152/19, Centra's current application does not seek new natural gas rates in this hearing. However, Centra included within its Application the following illustrative results of its proposed cost of service methodology using the Board-approved 2019/20 revenue requirement.

Illustrative Cost of Service Allocation Results
Using the 2019/20 Board-Approved Revenue Requirement ($000's)

Customer Class	Approved Cost of Service Methodology	Proposed Cost of Service Methodology	Increase / (Decrease)
Small General Service	$128,542	$130,239	$1,697
Large General Service	$54,398	$55,132	$734
High Volume Firm	$13,050	$11,587	($1,463)
Co-op	$18	$15	($3)
Mainline	$2,225	$1,738	($487)
Special Contract	$2,299	$1,069	($1,229)
Power Station	$280	$851	$571
Interruptible	$1,599	$1,779	$180
Primary Gas	$115,089	$115,089	$0
Supplemental Firm	$10,998	$10,998	$0
Supplemental Interruptible	$760	$760	$0
Fixed Rate Primary Gas	$64	$64	$0
Total Cost of Service	**$329,321**	**$329,321**	**$0**

The table above suggests, among other things, an indicative $1.229 million decrease in costs to be assigned to the Special Contract class under Centra's proposed direct assignment methodology.

In the event that the Board approves Centra's proposed changes to its cost of service methodology, Centra seeks an interim rate measure to immediately adjust rates for the Special Contract and Power Station classes. Specifically, Centra seeks to revert the non-gas portion of rates paid by the Special Contract class back to the rates in effect before the 2019/20 General Rate Application. The resulting revenue deficiency is to be absorbed by the Power Station class, whose only customer is Manitoba Hydro, Centra's parent company.

Centra's proposal would decrease the annual costs allocated or assigned to the Special Contract class by approximately $838,000, while increasing the costs allocated or assigned to the Power Station class by the same amount.

In the Board's second procedural order (Order 36/22), the Board found that matters of rate design and customer class impacts would most effectively be reviewed at a general rate application, but agreed that a near-term measure for the Special Contract and Power Station classes would be in scope for this hearing.

10.2 Positions of the Parties

Centra

According to Centra, the illustrative results of the change in cost of service methodology are significant for the Special Contract class. As such, Centra submits that, contrary to typical convention, the Board should consider an interim measure to immediately adjust rates for the Special Contract and Power Station classes. Centra argues that its proposal is a practical interim approach that provides a greater alignment between revenues and costs to the Special Contract class, assuming the Board approves the direct assignment approach.

Centra submits that even considering the limitations of illustrative rate impacts available in this hearing, the burden of proof for an interim measure is satisfied in this case. According to Centra, the Board and other parties will have the opportunity to review the interim rate measure at the next general rate application and finalize or vary the interim rates as necessary at that time.

Interveners

CAC Manitoba

CAC Manitoba opposes any interim measure in this hearing. According to CAC Manitoba, Centra's customer impact analysis is incomplete and too unreliable to set actual rates. CAC Manitoba argues that elevating an illustrative result for certain customer classes to an interim rate reduction is extraordinary, if not unprecedented. In CAC Manitoba's submission, the proper place to assess rate changes is at a general rate application, and to do otherwise effectively invalidates rates the Board previously considered just and reasonable when approved at Centra's 2019/20 General Rate Application.

IGU/Koch

IGU and Koch support Centra's proposal for an interim rate adjustment and argue that the proposed adjustment is fair, equitable and appropriate. IGU and Koch submit that there have been delays in the cost of service methodology review, and that it does not look like Centra's next general rate application will be filed until 2023. In IGU and Koch's submission, the Special Contract class has been overpaying by $1.229 million per year since the 2019/20 General Rate Application. If rates are finalized three years later than what was envisioned by the Board in Order 152/19, the Special Contract class will have subsidized other ratepayers by approximately $4 million. Conversely, Centra's illustrative cost of service study results filed in this hearing indicate that the Power Station class has been underpaying by approximately $571,000 per year. Consequently, IGU and Koch conclude that the primary beneficiary of a delay in filing rate applications is Manitoba Hydro, Centra's parent company and the only customer in the Power Station class.

IGU and Koch also argue that the interim Special Contract and Power Station rate proposal does not affect any other classes and that, based on the best evidence available, the Special Contract class will still be significantly subsidizing other classes of ratepayers even if the adjustment is approved.

10.3 Board Findings

The Board finds that it is just and reasonable to order an interim rate relief measure directed to the Special Contract class and affecting the Power Station customer class. However, the Board varies the relief sought by Centra to limit the interim measure to a one-year period that coincides with Centra's 2022/23 gas year.

The Board recognizes that an interim rate measure is not consistent with the Board's general approach of separating the cost of service review from ratemaking and accepts CAC Manitoba's submission that elevating an illustrative result into an interim rate reduction is extraordinary. However, in this case, an extraordinary measure is warranted because of the history of the cost of service review.

As a result of the 2019/20 General Rate Application, the Special Contract class received a substantial rate increase that was mainly driven by non-gas costs allocated to that class for large transmission-related investments made by Centra since the time of the previous general rate application. At that time, Koch argued that the increase may be in the wrong direction if the Board later determined that a change in cost allocation methodologies was warranted. As a result of the COVID-19 pandemic and other factors, the cost of service review envisioned in Order 152/19 did not take place until three years later. Because the revised cost of service methodologies approved in this order allocate or assign a significantly lower amount of costs to the Special Contract class, and because there is currently no firm filing date for Centra's next general rate application, the Board finds that some interim rate relief is warranted.

The Board notes that the illustrative results filed in this hearing are only indicative and do not reflect the various ratemaking and rate design factors that the Board takes into consideration at a general rate application. As such, the Board is not prepared to order an interim rate measure of indefinite duration.

The Board accordingly approves a time-limited interim rate measure for the Special Contract and Power Station customer classes to be in effect from November 1, 2022 to

October 31, 2023. Under this rate measure, the non-gas portion of the Special Contract rate will revert to the rates that were in effect prior to Order 161/19 and the resulting revenue deficiency will be charged to the Power Station class. At the end of the 2022/23 gas year, the interim measure will expire and the rates paid by these classes will revert back to the rates approved in Order 161/19, unless the Board orders otherwise.

For the Special Contract class, the reversion is expected to reduce the revenue collected from that class by approximately $838,000 during the year for which the measure is approved. This amount is less than the indicative $1.2 million reduction in allocated costs calculated by Centra.

Manitoba Hydro is the sole customer in the Power Stations class, and Centra is a wholly owned subsidiary of Manitoba Hydro. The Board notes that both Manitoba Hydro and Centra support the interim rate measure.

The Board further recognizes that the interim rate measure will not have any immediate effect on the rates paid by Manitoba Hydro's ratepayers, as those rates must be fixed by the Board at that utility's future general rate application.

11.0 OTHER MATTERS

11.1 Operation & Maintenance, Customer Service and Administrative Expenses

11.1.1 Background

This is issue 9 identified as an in-scope issue in Order 36/22.

To support its ongoing operations, Centra incurs various operation and maintenance, customer service, and administrative expenses. This includes expenses related to billing and collections, customer and public relations, customer safety and inspections, dispatch, distribution maintenance, meter reading, and unaccounted-for gas.

Unaccounted-for gas (UFG) can be understood, in simplified terms, as the difference between the amount of gas purchased by Centra and the quantity of gas sold to Centra's customers. The causes for UFG can generally be attributed to gas measurement variations, the physical loss of gas through leaks from the utility system, or various accounting factors (e.g., cyclic billing practices or customer billing policies). Centra's UFG loss percentage typically varies from year to year due to a number of factors, but can fluctuate between 0.5% and 1%.

For the purposes of its cost of service study, Centra makes use of different allocators to assign these operation and maintenance, customer service, and administrative costs to the various customer classes. For example, different allocators may account for the number of service orders issued for a specific maintenance category or for the number of calls received from a customer class regarding a specific service category over a period of time.

In 2004, Centra filed a UFG study to support the allocation of its UFG costs to each customer class. In Order 131/04, the Board directed Centra to modify the results of its 2004 UFG study. For cost allocation purposes, Centra has been using the modified UFG study results since that time.

Atrium reviewed Centra's allocation methods for its operation and maintenance, customer service, and administration expenses and concluded that Centra's approach aligns with industry best practices. However, Atrium did recommend that Centra update its UFG study to establish the current, overall system-wide level of UFG.

11.1.2 Position of the Parties

Centra

Centra proposes to retain the existing allocation methodologies for its operation and maintenance, customer service, and administrative expenses. However, Centra also proposes to review its allocation study related to UFG and provide a status update on this effort at the next general rate application. Centra notes that its 2004 UFG study took 12 months to complete and indicates that it does not anticipate being in a position to have an updated study ready in time for the next general rate application. In the interim, Centra proposes to retain the current allocations for UFG.

IGU and Koch

IGU and Koch support Atrium's recommendation for Centra to update its UFG study. IGU and Koch submit that the Board should direct Centra to undertake a full update of the UFG study within a specified time frame, ideally 12 months. In support of this request, IGU and Koch argue that since the time of Centra's 2004 UFG study, major system configuration changes have occurred, and the amount of UFG has declined.

11.1.3 Board Findings

Consistent with Centra's application, the Board is not amending the allocation of operation & maintenance, customer service, and administrative expenses.

The Board accepts Atrium's evidence that the UFG study should be updated. Centra is to update its UFG study as soon as possible. Should this updated study not be available by the next general rate application, Centra is to provide an update on the progress made in regard to this initiative. Until the updated UFG study is completed, the results of

Centra's 2004 UFG study remain acceptable to the Board for the purpose of cost allocation.

11.2 Impacts of Rate Restructuring

11.2.1 Background

This is issue 7 identified as an in-scope issue in Order 36/22.

In Order 131/21, the Board approved a simplification of Centra's rate structure effective November 1, 2022. Before that time, Centra's rate structure consisted of the following five components:

1. Primary Gas: Natural gas purchased in Western Canada by Centra or by independent natural gas retail marketers (using Centra's Western Transportation Service) and transported on the Canadian Mainline to Centra's natural gas distribution system in Manitoba. Primary Gas is sourced at the AECO or Empress hubs.

2. Supplemental Gas: Natural gas supplies acquired by Centra that are other than Primary Gas as required to meet the needs of all consumers during periods of peak consumption or other seasonal requirements. Supplemental Gas includes Emerson supply and U.S. supplies.

3. Transportation to Centra: Recovers the fixed and variable costs associated with transporting gas supplies to Manitoba, including TCPL charges, all U.S. pipeline charges, and costs associated with storage facilities in Michigan.

4. Distribution to Customer: Recovers the fixed and variable costs associated with operating Centra's natural gas transmission and distribution network of underground pipes.

5. Basic Monthly Charge: A fixed charge designed to recover, in part, the cost of the customer being connected to Centra's natural gas distribution system that is not related to the volume of natural gas consumed. Examples of costs partially recovered by this charge include meter reading and billing costs, and costs to service and maintain meters and the underground service lines.

As of November 1, 2022, the Primary Gas and Supplemental Gas rates will be replaced with a new Gas Commodity rate. Similarly, the Transportation to Centra rate and the Distribution to Customers rate will both be replaced with a new Delivery rate. The Basic Monthly Charge remains unchanged.

For cost allocation purposes, Centra proposed to update its definitions for the Production and Pipeline functions to align them with the rate restructuring decisions of Order 131/21. Furthermore, Centra applied for the following cost of service methodology amendments, consistent with the simplified rate structure approved in Order 131/21:

- Functionalize costs incurred to transport gas on the Nova Gas Transmission pipeline from the AECO hub to the Empress hub as Pipeline (instead of Production), classify those costs as Demand, and allocate them based on a coincident peak design day methodology (instead of peak and average);
- Functionalize the cost of compressor fuel consumed at the Empress hub as Pipeline (instead of Production), classify these costs as Energy, and allocate them on a volumetric basis (in the same manner as other pipeline compressor fuel costs); and
- Simplify future cost of service studies to include only a single Gas Commodity class for the purposes of developing the overhead component of the Gas Commodity rate.

In this proceeding, none of the intervening parties have taken a position regarding Centra's cost of service proposals related to rate restructuring.

11.2.2 Board Findings

The Board approves Centra's proposed cost of service methodology changes resulting from the rate restructuring decisions of Order 131/21 and notes that this issue was not contested by any party.

11.3 Elimination of the Co-op Class

11.3.1 Background

This is issue 8 identified as an in-scope issue in Order 36/22.

Centra's Schedule of Sales and Transportation Services and Rates, more commonly called the Terms and Conditions of Service ("Terms and Conditions") currently describes its Co-op service offering.

The Co-op customer class was introduced in 2003 to accommodate the North Cypress Energy Co-op that had been previously served under Centra's Large General Service class. This co-op has dissolved and Centra acquired its assets in 2006. Since that time, no customer has since been eligible for the Co-op class or expressed an interest for the service option. Furthermore, Centra states that there is a low likelihood of increased participation by customers that would fall into this class going forward.

In 2012, Centra endorsed a recommendation from Christensen Associates, who had been retained by Manitoba Hydro to review Manitoba Hydro's and Centra's cost of service methodologies, to eliminate the Co-op class. In this proceeding, Centra recommended the elimination of the Co-op customer class and for this change to be reflected in the cost of service study filed at the next general rate application.

None of the intervening parties in this proceeding have taken a position regarding Centra's proposal to eliminate the Co-op class.

11.3.2 Board Findings

The Board approves the elimination of the Co-Op class and notes that this issue was not contested by any party. The Board directs Centra to make a compliance filing, prior to November 1, 2022, that includes a revised version of Centra's Terms and Conditions, which reflects the elimination of this class. This revised version of Centra's Terms and Conditions is also to include Centra's proposed changes resulting from Order 131/21 in respect of the recent restructuring of Centra's rates.

11.4 Procedural Matters

11.4.1 Commercially Sensitive Information

Centra applied for, and the Board subsequently allowed, certain information within the Application and the related evidence and submissions to be received by the Board in confidence under Rule 13(2) of the *Board's Rules of Practice and Procedure*.

Centra's responses to the Board's supplemental information requests also contain commercially sensitive information that Centra proposed to redact from the public record. Unredacted copies were filed with the Board as commercially sensitive information. Consistent with prior Board decisions regarding commercially sensitive information filed in this hearing, the Board is satisfied that the requirements of subsection 13(2) of the Board's *Rules of Practice and Procedure* are met and accepts the filed information in confidence.

11.4.2 Compliance Filing

As directed previously in this order, Centra will make a compliance filing that includes its updated Terms & Conditions by November 1, 2022. The updated Terms & Conditions should reflect the elimination of the Co-op customer class and any changes resulting from rate restructuring.

In accordance with the Board's decision in section 10.3 above, the Board also expects Centra to file updated rate schedules as part of the compliance filing and to request approval for these updated rates either as part of Centra's compliance filing or as part of its November 2022 gas commodity quarterly rate application.

11.4.3 Cost of Service Model

As outlined in Order 58/22 and section 4.0 of this order, interveners made requests to gain access to Centra's cost of service study computer model or a proxy electronic model. In Order 58/22, the Board denied such motions for the purposes of the current hearing.

Order 58/22 anticipated the need for Centra to file compliance submissions following the Board's approval of changes to the existing cost of service study methodologies. Specifically, the Board stated:

> *The Board further finds that it is premature and not within the scope of this proceeding to review the implementation of any COSS methodologies that may be accepted by the Board. Any issues related to the implementation of any new COSS methodologies should be addressed following the Board's issuance of its final Order and Centra filing its compliance submissions. The Board expects the next Centra General Rate Application will include consideration of COSS matters.*

The availability of an electronic version of Centra's cost of service model has the potential to facilitate future general rate applications and cost of service methodology reviews. However, the Board recognizes that the sharing of an electronic model may create challenges with respect to the protection of commercially sensitive information. The Board therefore directs Centra to file a proposal with the Board on how an electronic model may be shared with interveners, and what protections would have to be put into place.

11.4.4 Comparative Cost of Service Study

CAC Manitoba recommends that the Board direct Centra to prepare two versions of the cost of service study based on the test year revenue requirement of the upcoming general rate application: one version incorporating the changes to the cost of service methodology approved by the Board in this order, and a second version based on the existing methodology. CAC Manitoba submits that having both of these studies is the most efficient and effective way to test the changes in the cost of service methodology.

Centra submits that it is not necessary or appropriate to direct Centra to file multiple versions of its cost of service study to isolate and test the rate impacts of methodology changes. Cost of service methodology changes should be final and not subject to review solely upon evidence of the impacts to customer rates.

The Board agrees with Centra that filing two versions of the cost of service study results, and corresponding rate impacts, is not needed in order to evaluate whether the methodology changes approved in this order are appropriate. Accordingly, the Board will not direct Centra to file two versions of the cost of service study at this time.

12.0 IT IS THEREFORE ORDERED THAT:

1. Centra's cost of service methodology shall be revised and updated as follows:

   a) For the Demand component of Centra's Transmission and Distribution functions, the existing peak and average allocation methodology shall be replaced with a coincident peak allocation methodology based on Centra's design day. The Interruptible class shall be included in the calculation of the allocators.

   b) The costs associated with the dedicated transmission mains and related assets supplying unodourized gas to the Special Contract and Power Station customer classes shall be directly assigned to those classes.

   c) Centra shall complete a minimum system study, using cost data indexed to inflation, to inform the classification of Centra's distribution mains. If Centra's minimum system study is ready in time for the utility's next general rate application, Centra's cost of service study for that application is to be based on the classification percentages suggested by the minimum system study. If the study is not ready in time for Centra's next general rate application, Centra is to retain the existing 67% Demand and 33% Customer classification for its distribution mains and provide an update on the preparation of the study at the general rate application.

   d) For the Demand component of Centra's Pipeline function, the existing peak and average methodology shall be replaced with a coincident peak allocation methodology based on Centra's design day that excludes the Interruptible customer class in the calculation of the allocators.

   e) For the Demand component of Centra's Storage function, the existing peak and average methodology shall be replaced with a winter season demand in excess of summer season demand methodology that includes the Interruptible customer class in the calculation of the allocators.

2. Centra shall update its service line study and meter study in time for the next general rate application. The cost data included in both of these studies are to be indexed for inflation.

3. Centra shall file, together with its next general rate application, a modified franchise expansion adjustment that removes only the adjustment for the Special Contract and Power Station customer classes. Centra shall also file its preferred approach to the adjustment, including Centra's rationale for the complete elimination of the adjustment if Centra remains of the view that a complete elimination is warranted.

4. Centra shall update its unaccounted-for gas (UFG) study as soon as practicable. Should this updated study not be available by the next general rate application, Centra shall provide an update on the progress made with respect to the study. Until the updated UFG study is completed, Centra may continue to use the existing results of its historical UFG study for cost allocation purposes.

5. Centra's proposed cost of service study methodology changes resulting from the rate restructuring decision of Order 131/21 **BE AND ARE HEREBY APPROVED** as follows effective November 1, 2022:

   a) Costs incurred to transport gas on the Nova Gas Transmission pipeline from the AECO hub to the Empress hub shall be functionalized as Pipeline, classified as Demand, and allocated based on a coincident peak design day methodology;

   b) Costs incurred for compressor fuel used to transport gas from the Empress hub to Manitoba shall be functionalized as Pipeline, classified as Energy, and allocated on a volumetric basis in the same manner as other pipeline compressor fuel costs; and

   c) A single Gas Commodity class shall replace the Primary Gas, Supplemental Gas-Firm, and Supplemental Gas-Interruptible classes in the cost of service study. The Gas Commodity class shall be used for the purposes of developing the overhead component of the Gas Commodity rate.

6. The elimination of Centra's Co-Op customer class **BE AND HEREBY IS APPROVED**.

7. An interim rate measure for the Special Contract class and affecting the Power Station class **BE AND HEREBY IS APPROVED** as follows:

   a) Effective November 1, 2022, the non-gas portion of the Special Contract class rates shall revert to the rates in effect for that class before November 1, 2019;

   b) The resulting revenue deficiency from reverting the Special Contract rates, in comparison to the non-gas rates approved in Order 161/19, shall be charged to the Power Station class through revised non-gas rates effective November 1, 2022; and

   c) The interim rate measure expires, and the non-gas portion of the Special Contract class rates shall revert back to the rates approved in Order 161/19, on November 1, 2023, unless the Board orders otherwise.

8. Centra shall file updated rate schedules that include the elimination of the Co-Op class and the interim rate approved in Directive 7 together with its November 2022 Gas Commodity rate application.

9. The Board accepts as commercially sensitive information all documentation filed as commercially sensitive information in this hearing, in accordance with Rule 13 of the Board's *Rules of Practice and Procedure*.

10. Centra shall make a compliance filing with the Board before November 1, 2022, that includes Centra's updated Terms & Conditions of Service that reflect the elimination of the Co-Op customer class and the rate restructuring changes directed in Order 131/21.

11. Centra shall file with the Board, together with its next general rate application or by March 31, 2023, whichever is earlier, a proposal on how an electronic version of its cost of service model may be shared with interveners for the purposes of the next general rate application and what confidentiality protections should be put in place to enable the sharing of such a model.

12. Centra shall file, together with its next general rate application, confirmation that it has implemented the changes to its cost of service methodology approved in this order and that its cost of service study filed in the general rate application conforms to the Directives set out in this order.

13. The rates requested in the next general rate application shall be based on the methodology approved in this Order. Centra shall file, with its next general rate application, the results of a new cost of service study prepared using the methodology approved in this Order.

Board decisions may be appealed in accordance with the provisions of Section 58 of *The Public Utilities Board Act*, or reviewed in accordance with Section 36 of the Board's Rules of Practice and Procedure. The Board's Rules may be viewed on the Board's website at www.pubmanitoba.ca.

THE PUBLIC UTILITIES BOARD

"Marilyn Kapitany, B.Sc. (Hon), M.Sc."
Panel Chair

"Rachel McMillin, B.Sc."
Associate Secretary

Certified a true copy of Order No. 109/22
issued by The Public Utilities Board

R McMillin
Associate Secretary

APPENDIX A: GLOSSARY OF COST OF SERVICE TERMS

Term	Acronym	Description
Applicant		A party who makes an application to the Public Utilities Board. Generally, this is a utility seeking an approval from the Board.
Atrium Economics, LLC	Atrium	The independent cost of service expert selected by Centra for this cost of service methodology review.
Canadian Mainline		An interprovincial gas transmission pipeline that is regulated by the Canada Energy Regulator. The Canadian Mainline is owned by TransCanada Pipelines Limited, which is a subsidiary of TC Energy. Also known as the TCPL Mainline, the Canadian Mainline is used to transport natural gas between the Alberta-Saskatchewan border, across to Manitoba, into the eastern provinces, as well as to the U.S., including toward the south at Emerson in Manitoba.
Centra Gas Manitoba Inc.	Centra	Manitoba's only natural gas utility. Centra is a wholly owned subsidiary of Manitoba Hydro, a Crown corporation.
Consumers' Association of Canada (Manitoba) Inc.	CAC Manitoba	An intervener to this hearing who represents the interests of consumers across Manitoba and, in particular, the interests of Centra's residential natural gas customers.
Classification		Step 2 in the cost of service process. Costs are classified into one of three categories: (1) Demand, (2) Energy, or (3) Customer.
Coincident Peak		An allocation factor based on the point in time when the collective demand of all customer classes is highest, i.e., the time when the utility must provide the highest flow of gas. The coincident peak may not be at the same time as the peak of a specific customer class, which may occur at a different time. The coincident peak may be determined based on actual historical data, based on the utility's design day, or some other method.
Cost of Service		A process by which a utility's approved revenue requirement is allocated to different customer classes. The process involves three steps: (1) Functionalization, (2) Classification, and (3) Allocation. As an alternative to the Allocation step, costs attributable to a specific customer class may be directly assigned to that class.
Customer Class		Centra's customers are grouped into customer classes based on their service characteristics. All customers within the same class pay the same rates. The customer classes discussed in this Order include the following: (1) Small General Service, (2) Large General Service, (3) High Volume Firm, (4) Mainline, (5) Interruptible, (6) Special Contract, (7) Power Station, and (8) Co-Op.
Customer (Classification)		The classification used for costs that are directly affected by the number of customers attached to the system.

Term	Acronym	Description
Demand (Classification)		The classification used for costs that vary based on peak usage rather than the volume of natural gas consumed or the number of customers.
Demand-Side Management	DSM	Programs targeted to customers to reduce their demand, e.g., through energy efficiency incentives. Efficiency Manitoba, a Crown corporation, has a statutory mandate to provide natural gas DSM in Manitoba.
Distribution (Function)		The function used for the capital and operating costs of Centra's high-, medium- and low-pressure distribution systems.
Energy (Classification)		The classification used for costs that are directly affected by the volume of gas purchased or consumed.
Functionalization		Step 1 in the Cost of Service process. Assets and costs are grouped into one of six Functions: (1) Production, (2) Pipeline, (3) Storage, (4) Transmission, (5) Distribution, or (6) Onsite.
General Rate Application	GRA	A Public Utilities Board process to review Centra's proposed changes to rates and their impact on various Customer Classes.
High Volume Firm (Customer Class)	HVF	Commercial and industrial customers with an annual consumption of 680,000 m^3 of gas or more.
Industrial Gas Users	IGU	An Intervener to this hearing that represents a coalition of high-consumption natural gas users.
Interruptible (Customer Class)	INT	Commercial and industrial customers with an annual natural gas consumption of 680,000 m^3 or more and whose service may be interrupted by Centra with notice from time to time.
Intervener		A party to a Public Utilities Board hearing who is not the Applicant. The purpose of an intervener is to assist the Board in making a decision by bringing a perspective to an issue that may not align with that of the Applicant.
Kilopascal	kPa	A unit of pressure used to measure the pressure in natural gas pipelines. One kPa is equivalent to approximately 0.15 pounds per square inch (psi).
Koch Fertilizer Canada, ULC	Koch	An Intervener to this hearing. Koch is a large fertilizer manufacturer and customer within the Special Contract class.
Large General Service (Customer Class)	LGS	Medium-sized commercial and industrial customers with an annual consumption of less than 680,000 m^3 of gas.
Load Factor		The ratio of average demand to peak demand. A high load factor indicates that demand is fairly constant. A low load factor indicates that peak demand is much higher than average demand.
Mainline (Customer Class)	MLC	Commercial and industrial customers with an annual consumption of 680,000 m^3 or more of gas who are served directly from Centra's transmission system or through dedicated high-pressure distribution lines.

Term	Acronym	Description
National Association of Regulatory Utility Commissioners	NARUC	A U.S. organization representing state public service commissioners who regulate utility services. NARUC is the U.S. equivalent to the Canadian Association of Members of Public Utility Tribunals (CAMPUT).
Odourization		Natural gas does not have an odour, which means humans cannot smell a gas leak that involves pure natural gas. Odourization is a common natural gas utility process by which a strong-smelling additive is added to gas to make it easier to detect a gas leak.
Onsite (Function)		The function used for the capital and operating costs of Centra's service lines, meters and other equipment installed on customer premises. It also includes the cost of customer accounting and customer service.
Pipeline (Function)		The function used for the fixed and variable costs incurred by Centra to transport gas on interprovincial pipelines such as the Canadian Mainline to Centra's receipt gates in Manitoba.
Power Station (Customer Class)	PS	Electrical generating stations who consume natural gas in the production of electricity. Manitoba Hydro is the only customer in this class.
Production (Function)		The function used for the commodity cost of Centra's gas supply, including supplies purchased in Alberta, the U.S., and other available market hubs.
Rate Base		The amount of investments based on which a utility is entitled to earn a reasonable rate of return. Rate base consists of the sum of a utility's plant-in-service, plus a reasonable amount for working capital, minus accumulated depreciation and customer contributions. The annual depreciation applied to a utility's rate base is one of the costs that must be included in a cost of service study.
Seasonal Resource Stack-Based Analysis		An allocation methodology that relies on a detailed analysis of a utility's gas supply, storage, and transportation resources and corresponding costs to determine which costs should be allocated based on annual volumes, winter volumes, and peak demand.
Small General Service (Customer Class)	SGS	Residential and small commercial customers with an annual consumption of less than 680,000 m^3 of gas.
Special Contract (Customer Class)	SC	Customers to whom service is provided under a written agreement between the customer and Centra that governs Centra's service to that customer.
Storage (Function)		The function used for the fixed and variable costs of Centra's U.S. transportation and storage portfolio. This function includes all U.S. pipeline charges.
System Load Factor		The Load Factor of a utility's overall system, determined- by the collective average and peak demand.

Term	Acronym	Description
Transmission (Function)		The function used for the capital and operating costs of Centra's high-pressure transmission pipelines. This function includes the cost of Unaccounted-for Gas.
Unaccounted-for Gas	UFG	Gas that is purchased by Centra but not available for sale, whether as a result of leakage, inaccuracies in metering, or errors from billing estimates.
Winter Season Demand in Excess of Summer Season Demand Method		An allocation methodology that relies on calculating the amount by which winter demand exceeds summer demand, thereby necessitating additional capacity to meet seasonal peaks.

APPENDIX B: APPEARANCES AND EXPERT WITNESSES

APPEARANCES

Party	Legal Counsel
The Public Utilities Board	Bob Peters, Sven Hombach
Centra Gas Manitoba Inc.	Brent Czarnecki, Jessica Carvell
Consumers' Association of Canada (Manitoba) Inc.	Brian Meronek, Q.C.
Industrial Gas Users / Koch Fertilizer Canada, ULC	Antoine Hacault

EXPERT WITNESSES

Party	Expert Witness
Independent Expert	Atrium Economics, LLC
Consumers' Association of Canada (Manitoba) Inc.	Darren Rainkie, CPA, CA, CBV Principal, Darren Rainkie Consulting
	Kelly Derksen, B.Sc., CPA, CMA Principal, Kelly Derksen Consulting
Industrial Gas Users	Patrick Bowman, B.A., M.N.R.M Principal Consultant, InterGroup Consultants Ltd.
Koch Fertilizer Canada, ULC	Brian Collins, B.Sc., MBA Brubaker & Associates, Inc.