
**FULLY ALLOCATED COST STUDY
ENBRIDGE GAS DISTRIBUTION
2017 TEST YEAR**

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1. Summary

The 2017 Fully Allocated Cost Study is found in Exhibit G2, Tabs 2 to 7. The key results, including the cost to serve each rate class, and revenue to cost ratios are summarized in Table 1, and are shown in further detail in Tab 2. Table 1 compares the allocated cost to serve (Col. 2) to the proposed revenue (Col. 1), over / under contribution (Col. 3), and revenue to cost ratio (Col. 4) for all rate classes.

<i>Table 1</i>				
FULLY ALLOCATED COST STUDY RESULTS				
	Col. 1	Col. 2	Col. 3	Col. 4
	<u>Revenue</u>	Cost to	Over/Under	Revenue
	<i>\$Millions</i>	<u>Serve</u>	<u>Contributions</u>	<u>to Cost</u>
		<i>\$Millions</i>	<i>\$Millions</i>	
Rate 1	1,649.78	1,639.21	10.57	1.01
Rate 6	979.66	981.38	(1.73)	1.00
Rate 9	0.09	1.05	(0.96)	0.08
Rate 100	0.00	0.00	0.00	0.00
Rate 110	47.39	48.10	(0.71)	0.99
Rate 115	7.96	9.89	(1.92)	0.81
Rate 125	11.66	11.66	(0.00)	1.00
Rate 135	2.61	3.04	(0.42)	0.86
Rate 145	3.55	5.81	(2.26)	0.61
Rate 170	8.73	11.06	(2.32)	0.79
Rate 200	27.83	27.91	(0.07)	1.00
Rate 300	0.20	0.36	(0.16)	0.55
Rate 325 & 330	1.75	1.75	0.00	1.00
Direct Purchase	1.42	1.42	0.00	1.00
Total	2,760.02	2,760.02	0.00	1.00

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2. Introduction

The Study allocates test year rate base and revenue requirement to the various rate classes.

The Study's results represent the best estimate of the forecast costs to serve each rate class based on the conventions that underpin the study. An approach using different conventions would produce different results. However, it is the consistent year-to-year relationship between costs and revenues that is important for rate impacts, rather than the absolute level of allocated costs.

3. Conventions and Principles

The relative accuracy of any study can only be understood through the examination of the effects of the conventions employed. The major costs the Company incurs for providing service are associated with common facilities, such as gas distribution mains. To identify costs for each rate class for facilities that are shared by all customers, conventions that are based on principles and judgements are employed. These conventions have been reviewed and approved by the Ontario Energy Board, and together, they determine:

- the approach
- the degree of accuracy
- comparability and consistency over time

3.1 Approach

The Study first identifies two distinct cost entities: Enbridge Gas Distribution Inc ("EGDI") and Tecumseh Gas Storage Division ("Tecumseh Gas"). It is necessary to ensure the proper separation of costs between storage and distribution services so as to remove any potential for

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cross-subsidization between distinct services. Each entity is pro rated a share of corporate-related overhead costs: administrative and general, fringe benefits, and average return on rate base.

The Study next allocates the forecasted embedded costs for each entity that collectively form the revenue requirements in the test year. These costs are broken down, or unbundled, into cost components by rate class for each service provided to customers.

Due to the comprehensive nature of utility operations, a three-step process to *functionalize*, *classify*, and *allocate* costs, is necessary to facilitate costing of the variety of services required that are identifiable with each customer class. The consistent application of these steps results in an approach that allocates to each rate class the average costs associated with specific, shared, and common facilities used to provide services required by customers.

The rate classes themselves are set to reflect homogeneity of customer characteristics. Costs by class are more reflective of costs the customers in the class impose on the system if customers have similar characteristics of service. As a result of homogeneous classes, services provided to each class are costed at the customer class average and result in minimal distortions.

3.1.1 Average Embedded Costs

The Company operates an integrated system employing pipeline, storage, curtailment, and distribution facilities to deliver gas to customers in three geographical regions of Ontario. Due to this integration, the Board has directed the use of *postage stamp rates*. That is, customers on a given rate in St. Catharines are subject to the same charges as customers using the rate in Ottawa.

The use of postage stamp rates in such an integrated system is supported by the costing of each service at the customer class average. As an example, all customers share in the mix of

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investment vintages. The administration of an accounting system and setting of rates that are differentiated on the basis of specific investments would not be viable. Therefore, a rate class, such as Rate 1, which has a considerable number of older vintage services, has a delivery rate designed based on the average cost for service lines for all customers served under Rate 1.

3.1.2 Three-Step Process in the Assignment of Revenue Requirement

The three steps of functionalization, classification and allocation of costs are designed to apportion rate base, net investment costs and operating and maintenance (O&M) costs for each class of customers in a fair and equitable manner.

Functionalization

The first step, functionalization, groups costs into operating functions to facilitate identification of costs associated with a distinct functional aspect of the Company, and allows for similar treatment of like costs.

The O&M costs, net investment costs, and rate base are grouped by the major functional centres of the Company listed in Table 2. Further refinement into sub-functions occurs when needed. Such an extensive list is necessary to: a) be as accurate as possible, and b) identify differences in cost behaviour when viewed at the rate class level.

For example, costs associated with pressure regulators are broken down to identify costs for regulators used in the distribution system (costs all customers

<i>Table 2</i> FUNCTIONS
Gas Supply
Storage
Sales Pressure Regulators
Distribution Pressure Regulators
Services
Mains
Meters
Rental Equipment
Sales/Marketing
Customer Accounting
Unidentifiable

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share), separately from costs for pressure regulators used in sales stations, which are specific to large volume customers. The last item in the table, Unidentifiable, collects miscellaneous items too small and numerous to be significant, and those which affect all functions, and cannot be broken out. These costs are spread back over the existing costs, pro rata.

Separate from the distribution system are Tecumseh Gas' costs. These costs are simply functionalized to either transmission and compression or storage.

A review of cost centres is carried out with every application to ensure continuity in functionalizing budgeted O&M costs, net investments, and rate base.

Classification

In the second step of classification, functionalized costs are grouped into categories that vary between rate classes by an identifiable factor or classifier. The costs are classified into three general cost groups based on whether costs vary with commodity (i.e. – volumes), capacity, or other customer specific factors.

Commodity-related costs are those that directly relate to the usage or consumption of natural gas. They are variable costs associated with each volume of gas sold or delivered in a given period. Capacity-related costs are those which are fixed over a given period and they include the costs of distribution mains, pipeline transportation capacity, and storage facilities. As the distribution system is sized to meet peak demand, capacity related costs are assigned on the basis of the rate class contribution to peak demand. Customer-related costs are investment and operating costs associated with customer meters, pressure regulators, and service lines, as well as customer accounting, billing, marketing and service operations costs.

In order to unbundle the Company's costing of services further, there are a number of sub-classifications within these three broad categories of classification. In total, there are 27 cost classifications and they are described in Appendix A (p. 26-27). New developments in

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providing customer service, operating practices, capital expansion, and gas supply, for example, are regularly monitored and cost classifications systematically reviewed each year. This ensures that cost classifications reflect cost incurrence and that similar costs are consistently treated.

The classification of costs for Tecumseh Gas is based on the demand and commodity rationale. Using the demand rationale, costs are borne in relationship to each class' demand on days colder than the average winter day. The commodity rationale assigns costs based on an annual volume. For Tecumseh Gas, costs are identified based on whether they are for peak day (i.e. – deliverability), annual space, or variable. These classifications are referred to as daily demand, annual demand, and commodity.

Allocation

The allocation of classified costs is the process of spreading similarly incurred costs to each rate class on a common factor that can be identified by each class. For example, the costs of issuing a monthly bill to each customer are allocated on the basis of the number of customers in each rate class. Since the activities for printing and mailing the bill are the same for all customers, the allocated unit costs for these activities are equal to all customers.

Appendix B (p. 28) lists the allocators used in the Study. A review of actual customer numbers, profiles, and planned consumption is performed each year to ensure that allocators are reflective of the incurrence of costs.

The classified costs of Tecumseh Gas are not allocated to different rate classes as in the gas distribution study. Rather, the results are used to charge storage service costs to the Company's in-franchise customers and to derive ex-franchise storage rates.

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3.2 Accuracy

The overriding principle for proper classification and allocation of costs is to do so based on the causation of costs. Customers should pay the costs incurred by the company to provide service to them. However, for Enbridge Gas Distribution Inc., a large utility providing a multitude of services, sometimes such principles are not easily applied as causation is not easily identifiable.

In general, the further costs are incurred from the burner tip, the less they can be directly related to a specific customer or class of customers. Where required, methodology is rationalized to explain cost relationships so that costs are apportioned to reflect relative rather than absolute costs.

For commodity costs, since their classification and allocation can be easily determined, the accuracy of the cost and ultimately the rate is largely dependent upon the forecasted cost of gas supply. To mitigate this, the Purchase Gas Variance Account (PGVA) captures actual gas cost variances from the forecast to keep both the Company and customers whole.

Not directly identifiable with the three general classifications are the administration and general costs and return and taxes. Administration and general costs are functionalized on the basis of the proportion of operating and maintenance costs forecast for each operating function. Return and taxes are guided by the allocation of rate base to the different rate classes. These costs are not customer-specific, and considering their relative magnitude, different means for classification and allocation would result in significantly different rate class costs.

The accuracy of the Study is enhanced through cost unbundling, which facilitates specific identification of certain costs as greater detail is required. If sufficiently accurate, these costs can then be considered as cost-based rate components and used to eliminate cross

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subsidization. The Company treats the commodity component of gas supply in such a manner. This cost, through appropriate classification and allocation, is passed through directly into rates.

Cost unbundling can also better reflect avoided costs of service. Customers that do not need or want gas supply and transportation service can opt for a rate that is designed without gas supply and transportation costs. However, it must be noted that the rates that are cost-based are determined based on conventions that reflect cost causality, but are not in themselves directly measurable.

3.3 Consistency

In assessing the Study's accuracy, one must keep in mind that the calculated costs are dependent upon the principles and methodologies used in classifying and allocating them. The consistent application of these steps results in an approach that allocates to each rate class the average costs associated with specific, shared, and common facilities used to provide services required by customers. By applying common factors that are identifiable by class and that are related directly to incurrence, accuracy and consistency are optimized each test year.

Further, as cost relationships are maintained among revenues, costs, and net investments, and among customer classes through the consistent application of the methodology, fairness and rate stability are natural outcomes. Because the rate impact occurs relative to an underlying level of historical cost, rate changes can then be explained by drivers that are transparent. This approach provides for appropriate price signals to customers.

4. Classification of Major Common Facilities

The following explains the rationale behind principles affecting the classification and allocation of certain fixed costs, specifically, upstream transportation charges, Union Gas' transmission costs, and gas distribution mains.

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4.1 Upstream Transportation Costs

Most upstream transportation costs are driven by the need to meet average annual demand. As a result, the Company contracts for upstream capacity at 100% load factor. In RP-2003-0203, the Company proposed and received approval for the annual demand classification of pipeline transportation charges.

Consequently, the majority of upstream transportation charges are classified as annual demand in the Study and allocated to the rate classes volumetrically. This treatment ensures that all bundled customers, regardless of their rate class, pay the same unit rate for fixed upstream transportation costs.

4.2 Union Gas Transmission Costs

The Company contracts for service with Union Gas to move gas in and out of storage and to move gas delivered at Dawn. Such costs include Union's transmission demand charges and transmission fuel.

A portion of this transmission capacity is required to move gas from Dawn to the franchise area in order to meet annual demand and load balancing requirements. The costs related to the portion required to meet load balancing needs are classified as peak and seasonal load balancing. The costs associated with the portion required to meet annual demand are classified to upstream transportation charges as annual demand and allocated volumetrically, consistent with the treatment of upstream transportation costs.

The remaining capacity on Union's transmission service is used to move gas from the Company's storage operations at Tecumseh, and from storage that the Company has contracted for with Union Gas. This capacity is further classified between storage space and

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storage deliverability. As storage space is used to meet average winter requirements in excess of annual average demand, this transmission capacity attributable to storage space equals average daily withdrawals from Tecumseh and Union storage (approx. 40%). The balance (approx. 60%) is attributed to storage deliverability which is used to meet demand on days colder than the average winter day. This is allocated based on the rate class contribution of the excess of peak day requirements over average winter demand.

4.3 Distribution Mains

The mains network is sized to meet peak demand capacity on the distribution system. It is divided into three systems based on operating pressure: transmission pressure, high pressure and low pressure.

The first two groups are facilities for moving gas from upstream transportation facilities to the low pressure distribution grid mains network. It is essentially the grid network that ultimately provides access to gas for the Company's customers. Since the transmission and high pressure systems feed the grid mains, they have a very limited customer component and are classified entirely as capacity-related.

The low pressure grid system (1) provides natural gas access to customers or potential customers on the system, and (2) meets the volumetric demands of various customers. As a result, the low pressure system has both a capacity-related and a customer-related component. These cost components are estimated by isolating the distribution infrastructure that is needed to exist to provide customers access to natural gas service. In this Study, about 44% of the low pressure mains are classified as customer related, resulting in about 30% of total mains classified as customer-related, these proportions have remained fairly consistent over the years since the Board's EBRO 487 Decision with Reasons.

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5. The Study

The study can be found in the tabs following this report. They are:

- Tab 2 - Revenue to Cost Comparisons;
- Tab 3 – Functionalization;
- Tab 4 – Classification;
- Tab 5 – Allocation;
- Tab 6 - Classification and Allocation Factors; and,
- Tab 7 - Tecumseh Cost Study.

The costs can be followed as they flow through the study. For example, the input items in the total column in Tab 4, Classification, are the aggregated functionalized items from Tab 3, Functionalization. Similarly, Tab 5, Allocation, flows directly from Tab 4.

The costs from the Tecumseh Cost Study, Tab 7, flow to four schedules: Tab 3, Schedules 1, 3, and 4, representing functionalization of rate base, net investments and O&M respectively, and Tab 6, Schedule 2, Page 2 , Classification of Storage and Transportation.

The following sections detail the significant aspects of the proposed Fully Allocated Cost Study.

5.1 Functionalization

Functionalization of costs is performed on the four schedules of Tab 3.

Schedule 1: Rate Base

The functionalization of rate base and net investments is aided by the Uniform System of Accounts for Gas Utilities (Ont. Reg. 245/66). For example, in Tab 3, Schedule 1, the net rate

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base for Item 2.3, Mains, is functionalized to Col. 7, Mains. Other direct costs are similarly functionalized. The following explains the functionalizations that are not immediately obvious.

- Item 2.1, Land, is functionalized based on an analysis of land use.
- Items 2.2 and 3.2, Structures and Improvements, are functionalized based on an analysis of space utilization.
- Item 3.3, Office Furniture and Equipment, is functionalized based on use of the office space.
- Items 3.4 and 3.5, Transportation Equipment and Heavy Work Equipment, are functionalized on the basis of records showing equipment utilization.
- Item 3.6, Tools and Work Equipment, is mostly utilized by the construction and service departments and is, consequently, functionalized 50% to each of the mains and services functions respectively.
- Item 3.8, Communication Equipment, is functionalized based on an analysis of communication equipment.
- Item 3.9, Compressors, is the cost of NGV equipment for Company use and is functionalized based on transportation equipment from above.
- Items 3.10 and 3.11, Computer Equipment and Software Acquired/Developed, are functionalized based on an analysis of computer equipment use.
- Item 3.13, CIS, is functionalized as a separate function because the Board determined the derivation of annual cost for this item over a certain time period through a prior Decision.
- Item 4, Plant Held for Future Use, represents inactive services and is functionalized to services.

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Schedule 2: Working Capital Requirement

Working Capital Allowance, Schedule 1, Item 5.1, is functionalized in detail on Tab 3, Schedule 2. On this schedule, Prepaid Expenses, and Materials and Supplies are functionalized on the basis of accounting records. In addition to this:

- Item 3, Mortgages Receivable, arises from employee relocations, and is not a result of any specific function, and is, therefore, unidentifiable.
- Item 4, Rebilled Construction Work, is functionalized to mains, which is the key focus of this work.
- Item 5, Gas In Inventory, is functionalized as gas supply because the carrying cost of gas in inventory is a gas supply related cost.
- Item 6, Customer Security Deposits, is functionalized to Customer Accounting, offsetting the amounts associated with this function.
- Item 7.1, Gas Costs / O&M, is functionalized based on the Company's test year working cash requirement
- Item 7.2, HST, is similarly functionalized based on the Company's test year working case requirement, with the HST associated with revenues functionalized to HST revenues

Schedules 3: Net Investment Costs + Depreciation

Functionalization of depreciation expense is based on functionalization of the corresponding rate base items. Municipal Taxes, Item 1.2, are functionalized based on an analysis of assessed property.

Rental Revenues are functionalized to Rental Equipment. Revenues associated with Transactional Services are functionalized to Gas Supply and Storage. The Miscellaneous Revenues are not readily identifiable and are functionalized as such. Late Payment Penalties and Open Bill revenues are functionalized to Customer Accounting, offsetting the costs

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associated with that function. The same approach is applied to Meter and Service Alteration Charges.

Schedule 4: Operating and Maintenance (O&M) Costs

O&M expenses are determined by operating account in the accounting system. As mentioned previously, the accounting system is sufficiently uniform and detailed that O&M costs for each function can be identified. Overheads are costs that cannot be directly assigned or functionalized, and are treated separately.

Fringe Benefits, Item 6, include the costs of employee benefits. In Col. 2, these costs are apportioned to the operating functions based on labour costs in each of the functions.

Supervision costs, Col. 4, are apportioned to the operating functions based on Sub-Totals in Col. 3. Such a treatment recognizes that supervision involves not only management of personnel resources but also integration of all other resources.

Administrative and General (A&G) Overheads, Item 7, are allocated to the operating functions based on Sub-Totals in Col. 5, except for Gas Supply. 3% of the gas supply function costs are used for allocation of A&G overhead costs. Completely functionalized O&M costs are shown in Col. 7.

5.2 Classification

Classification of functionalized costs is performed in the three schedules in Tab 4.

Schedule 1: Rate Base

The rate base functionalized to Item 1, Gas Supply at Tab 4, Schedule 1, represents gas in inventory, working cash requirement for gas purchases, nominal recognition of land and structures, office furniture and equipment, and computer and communications costs. Working cash, land, structures, office related costs, and computer and communications facilities are

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required for daily management of the gas supply function and are classified as annual commodity costs. The working capital investment in gas inventory is, as directed by the Board, a winter season cost and is classified as seasonal cost.

For Item 2, Gas Storage, the Company identifies two factors to determine rate class responsibilities for this function. Storage facilities, coupled with other Company contract arrangements, either perform or are capable of performing the following operations:

1. Accepting gas during the summer (surplus to system's summer gas requirements) enabling the Company to contract for its gas requirements at a very high load factor, and receive the most advantageous / cost effective rate from upstream transporters.
2. Delivering gas from storage to the Company's market areas at times when demand exceeds contracted deliveries from pipelines.

Classification of Tecumseh Gas' costs and costs based on contract arrangements between Union Gas and the Company identifies three distinct types of service:

1. an annual component for space (volume) reserved for storage of gas for the Company's account;
2. a variable component for each cubic metre either injected into or withdrawn from storage; and,
3. a peak component for the maximum daily rate (i.e., – deliverability) at which the gas may be withdrawn from storage facilities.

Charges for space, injection and withdrawal, appear under the "Space" heading in Col. 9.

Charges for peak day service, plus the costs of the Company's storage facilities appear under the "Deliverability" heading in Col. 8.

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In addition to the storage costs described above, the Company uses Union Gas' transmission system to move gas to and from storage fields. These costs include Union's transmission demand charges and transmission fuel. The classification of these costs is described in Section 4.2 (Page 11) of the Study.

Item 3, Mains, is classified as approximately 30% customer-related and 70% capacity-related. Capacity-related costs are further sub-classified as transmission, high and low pressure capacity based on analysis of investments in each pressure category of mains. In the Decision to EB-2012-0459, the Board found that Rate 125 customers should not be allocated the costs of transmission pressure pipelines less than 6" in diameter. Accordingly, the transmission capacity classification is further split into TP Capacity for mains less than or equal to 4 inch in diameter (TP Capacity ≤ 4 ") and TP Capacity for mains greater than 4 inches (TP Capacity > 4 ").

Classification of Item 4, Distribution Regulation is based on the classification of mains as this function measures and regulates the flow of gas from upstream pipelines to the Company's gas distribution system and within the system.

Items 5 to 7, Sales Stations, Meters, and Services, respectively, represent customer related investments and are classified directly to sales stations, meters and services.

Item 8, Rental Equipment, is classified to Specific Classes and to Rentals. The NGV component of the rental equipment costs is classified as specific costs and is further analyzed to identify the rate classes for whom NGV-related costs were incurred. The remainder of the costs are classified to Rentals and subsequently allocated to the rate classes based on the Rental Equipment allocation factors.

Item 9, Sales and Marketing, is classified to Specific Classes, Distribution Costs and Number of Customers. NGV-related sales and marketing costs are classified as specific costs. The remainder is equally classified / split between Distribution Costs and Number of Customers.

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Item 10, Customer Accounting, represents costs incurred for customer care, such as call centre, issuing bills to customers, etc. and is classified to Number of Customers.

Schedule 2: Net Investment Costs

Classification of net investment costs follows the classification of the corresponding rate base items on Schedule 1 discussed above.

Schedule 3: Operating and Maintenance (O&M) Costs

Classification of Item 1.1, Gas Purchased, is based on results of the detailed Classification of Gas Costs to Operations found at Exhibit G2, Tab 6, Schedule 2, Page 1, Line 10.2. The following paragraphs discuss the Classification of Gas Costs to Operations schedule.

The variable unit rate for commodity costs is based on a 12 month average of projected AECO/NIT prices inclusive of fuel plus NOVA/Empress transportation tolls and reflects commodity price at Empress. This unit rate is reflective of commodity price in the marketplace and is consistent with direct purchase requirements. The proposed Empress reference price for the test year is \$93.7772 per 10^3 m^3 . All Purchases and Receipts are costed at this level as shown in Items 1.1 to 1.8, Col. 3.

Items 2 and 3 on the Classification of Gas Costs to Operations schedule are based on Classification of Transportation Costs found at Exhibit G2, Tab 6, Schedule 2, Page 3, Item 1-8, Total Delivered Supply, is the sum of Items 1 to 3.

Item 5, Storage Fluctuation, represents the difference between purchases and sendout, or in other words, inter-year additions or depletions of gas inventory. Accordingly, Storage Fluctuation is classified in the same manner as total gas purchases. Item 6, Gas Costs to Operations, is the sum of Total Delivered Supply and Storage Fluctuation. Item 7, Storage and

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Transportation, is classified based on Classification of Storage and Transportation, Exhibit G2, Tab 6, Schedule 2, Page 2.

Item 9.1, UUF Adjustment, recognizes that there are commodity losses on the gas distribution system that need to be replaced and is classified based on gas costs in Item 8.

Item 9.2, LUF Adjustment, represents gas losses for storage operations at Tecumseh Gas. This cost is removed from gas costs in Item 8 and placed in Tecumseh Gas Classification of cost to serve, Exhibit G2, Tab 7, Schedule 3, Item 2.1.1 where it is classified to transmission and compression and storage space based on functional allocation of Tecumseh Gas costs.

Item 1.2, Stored Gas, is the next item, on Tab 4, Schedule 3, Classification of O&M Costs. It represents costs associated with storage and transmission activities at Tecumseh and Union Gas. These costs are classified based on forecasted costs for deliverability and space demand as discussed in the description for classification of rate base and are the costs identified in Item 7 of the Classification of Storage and Transmission above.

Item 1.3, A&G, represents apportioned administrative and general overhead costs to the Gas Supply function. These costs do not vary with annual or seasonal throughput, are essentially fixed, and are incurred for the benefit of all customers, irrespective of their type of supply arrangements. Consequently, they are classified to Distribution Costs, TP Capacity ≤ 4 " and TP Capacity >4 ".

Items 1.4, System Gas Management, and 1.5, Direct Purchase Management, are classified to System Gas and Direct Purchase respectively.

Classification of Distribution related items, specifically Items 2.2, 2.3, and 2.5 to 2.9 follow classification of corresponding rate base items.

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Item 2.1, Chart Processing, is classified to Readings Processed, Col. 26.

Item 2.4, Gas Dispatched, is classified to Distribution Costs, TP Capacity ≤ 4 ", and TP Capacity > 4 ", reflecting costs associated with daily dispatch activities to optimize system operation.

Classification of some Customer Service related items can be directly attributed to specific classifiers. This is true for Item 3.4, Service Lines, which is classified to Customer Related Investments, Services. Cost responsibility for Items 3.1, Appliance Inspections, and 3.2, Locks/Unlocks/Exchanges, cannot be readily determined. Hence, these costs are classified to Total Number of Customers to be shared by all rate classes based on the number of customers in each class.

Classification of many Sales/Marketing related items can also be directly attributed to specific classifiers. Item 4.4, General Promotion, represents marketing and sales costs associated with general promotion of natural gas resulting in increased utilization of the gas distribution system.

Accordingly, this expense is classified as capacity related.

Item 4.6, NGV Operation, represents the cost of the NGV program. An analysis based on investments in the various NGV assets is used to determine allocation of these costs to appropriate rate classes.

Classification of Customer Accounting related items is discussed below. Items 5.1, Billing, 5.2, Enquiry, and 5.4, Credit, are classified to Total Number of Customers to be shared by all rate classes based on the number of customers in each class. Item 5.3, Meter Reading, is classified to Readings Processed.

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Uncollectibles in Item 5.6 represent bad debt expense. It is classified as Bad Debt Commodity and Bad Debt Distribution based on the proportion of commodity revenues relative to total revenues.

5.3 Allocation

Allocation of classified costs is performed in the three schedules in Tab 5.

Tab 5 exhibits allocate classified costs to each rate class based on allocation factors that are referenced on the exhibits. On the right hand side of Schedules 1 and 3 is a column titled "Allocation Factors Exhibit G2.6.3". The numbers in this column indicate the allocation factor used as identified by its item number in Exhibit G2, Tab 6, Schedule 3.

Allocation factors are explained in Appendix B. For example, Item 1.1, Annual Commodity, Exhibit G2, Tab 5, Schedule 1 is the Company's rate base investment classified as commodity-related. This amount is allocated to the rate classes based on the Annual Sales allocation factor found at Item 1.1, Exhibit G2, Tab 6, Schedule 3. Appendix B defines this allocation factor as annual volumes of gas sales customers. Therefore, only sales customers are allocated rate base costs of system supply, which mainly consists of working cash requirement for payment of gas purchases prior to receipt of revenues from customers.

Allocation of return and income taxes is pro-rated to rate base. Income earned attracts income tax. The requested return is set by reference to the rate base. Therefore, allocation of both return and income taxes is based on the Rate Base allocation factor found at Item 5, Exhibit G2, Tab 6, Schedule 3.

Item 2.6, Dawn Transportation Service (DTS), is a bundled direct purchase transportation service with Dawn as the delivery point. The transportation costs allocated to DTS include all

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costs associated with delivering gas from Dawn to Enbridge franchise area, including but not limited to the costs of transportation acquired by Enbridge from other service providers for the purpose of DTS and the proportionate cost of capacity on Segment A of the GTA Project required for the purpose of DTS (EB 2016-0215, Exhibit G1, Tab 1, Schedule1).

The total costs associated with providing DTS, Item 2.6 is excluded from Item 2.3, Annual – Transportation, and will be recovered over the total volumes of DTS. All DTS customers will be charged the same transportation unit rate, regardless of their physical location within Enbridge's franchise areas.

5.4 Storage and Transportation

Tab 7 is the Fully Allocated Cost Study for Tecumseh Gas.

Schedule 1 shows functionalization and classification of Tecumseh Gas rate base. The detail provided in the accounting system is sufficient to separate costs specific to transmission and compression from storage costs, facilitating functionalization. Classification is based on investment required to meet peak day demand relative to investment required to satisfy annual demand.

Functional Allocation of Tecumseh Gas costs, found on Schedule 2, is also facilitated by the accounting system. Functional allocation of Items 2.1 to 2.3, Operation, Maintenance and Administrative and General (A&G) costs, respectively, is determined based on consultations with Tecumseh Gas management.

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Other items are functionalized as follows:

- Item 1.1, Utility Return, follows functionalization of rate base;
- Item 2.4.1, Depreciation, based on functionalization of depreciation expense;
- Item 2.4.2, Amortization, represents amortization of storage rights and is accordingly allocated to Pool Storage ;
- Item 2.5.1, Municipal Taxes, based on functionalized tax base.

Functionalized transmission and compression costs, Column 4, are classified on Tab 7, Schedule 3, starting in Column 1. Functionalized storage costs, Column 5, are classified beginning in Column 7 of Schedule 3. Classification of return on rate base follows classification of rate base. Classification of other costs is based on cost incurrence or management's judgement.

Column 8 of Schedule 3 represents transfer of costs to Union Gas based on the sharing agreement between the Company and Union Gas for the Dow-Moore Pool. These costs do not form a part of the revenue requirement for Tecumseh Gas.

Classified costs from above are included in Item 1.2, Gas Storage, in Functionalization of Utility O&M, Exhibit G2, Tab 3, Schedule 4, Page 1. They are also reflected in development of Storage Classification Factors found at Exhibit G2, Tab 6, Schedule 2, Page 1, Item 11.1.

FULLY ALLOCATED COST STUDY

APPENDICES

FULLY ALLOCATED COST STUDY

<i>Appendix A</i> DEFINITIONS of CLASSIFICATIONS	
Classifier	Description
Gas Supply; Product Costs	
Annual Commodity	Costs of annual supply.
System Gas	Costs of system gas management.
Bad Debt Commodity	Costs of bad debt expense classified as commodity related.
Gas Supply; Load Balancing	
Peak Transportation	Costs of gas transportation to the Company on peak.
Seasonal Transportation	Costs for moving seasonal supplies.
Annual Transportation	Costs for transporting annual supply to the Company.
Storage Costs	
Deliverability	Costs of meeting demand on days colder than average winter demand.
Space	Costs of meeting average winter demand in excess of average annual demand.
Distribution Costs	
TP Capacity <=4"	Costs of transmission pressure distribution capacity for mains less than or equal to 4 inches in diameter.
TP Capacity >4"	Costs of transmission pressure distribution capacity for mains greater than 4 inches in diameter.
HP Capacity	Costs of high pressure distribution capacity.
LP Capacity	Costs of low pressure distribution capacity.
Commodity	Cost of supply for UUF.
Bad Debt Distribution	Costs of bad debt expense classified as distribution related.
DSM	Costs associated with DSM program and general costs.

FULLY ALLOCATED COST STUDY

<i>Appendix A cont'd</i>	
DEFINITIONS of CLASSIFICATIONS	
Classifier	Description
Customer Related Investments	
Meters	Costs of customer meters.
Sales Stations	Costs of customer sales stations.
Services	Costs of service lines.
Customer Plant	Costs of customer component of gas distribution mains.
Rentals	Costs of rental equipment.
Number of Customers	
Commercial/Industrial	Costs of sales and marketing for commercial and industrial markets.
Contracts	Costs of contract administration.
Direct Purchase	Costs of direct purchase management.
Total	Costs of customer service and customer accounting that are shared by all customers.
Other	
Specific Classes	Customer class specific costs that are assigned to specific rate classes.
HST Revenue	Reduction in working cash requirement arising from collection of HST.
Readings Processed	Costs for meter reading and processing customer bills.

FULLY ALLOCATED COST STUDY

<i>Appendix B</i>		
ALLOCATION FACTORS		
Allocator	Col. 1	Col. 2
Allocator	Units	Description
Volumetric Factors:		
Annual Sales	10 ⁶ m ³	Annual volumes of gas sales customers.
Bundled Annual Deliveries	10 ⁶ m ³	Annual throughput of bundled service customers.
Total Annual Deliveries	10 ⁶ m ³	Annual throughput of all customers.
Bundled Transportation Deliveries	10 ⁶ m ³	Annual transportation volume for bundled customers.
Dawn Transportation Service	10 ⁶ m ³	Annual transportation volume for Dawn Transportation Service customers.
Distribution Factors		
TP Demand	10 ³ m ³ /d	Peak throughput on the transmission pressure system.
HP Demand	10 ³ m ³ /d	Peak throughput on the high pressure system.
LP Demand	10 ³ m ³ /d	Peak throughput on the low pressure system.
Customer Related	Customer count	Total number of customers.
Storage Factors		
Deliverability	10 ⁶ m ³ /d	Demand in excess of average winter demand.
Space	10 ⁶ m ³	Average winter requirement in excess of average annual demand.
Customer Factors		
Meters	\$millions	Investment in meters.
Sales Stations	\$millions	Investment in customer sales stations.
Services	\$millions	Investment in services.
Rental Equipment	\$millions	Rental equipment revenues.
Total Customer Count	Customer count	Average number of customers.
Comm/Ind Customer Count	Customer count	Average number of comm/industrial customers.
Contracts	Customer count	Number of contracts to be administered.
Chart Readings	Chart reads	Number of charts read each year.
Meter Readings	Meter reads	Number of meter readings per year.
Direct Purchase Customers	Unity	Direct purchase management costs.